#### HI.-i. COVER PAGE:

<u>Technical Proposal</u> <u>Title of Proposal</u>: <u>Concept Plan and Technical Proposal for Electronic Absentee Systems for Elections (EASE)</u>: <u>Research and Modernization of Electronic Voting for Absont Uniformed Services Voters and</u> <del>Overseas Citizens</del>

Catalog of Federal Domestic Assistance Number: 12.217

BAA Number: HQ0034-FVAP-11-BAA-0001

Title of Proposal:

Concept Plan and Technical Proposal for Electronic Absentee Systems for Elections (EASE): Research and Modernization of Electronic Voting for Absent Uniformed Services Voters and Overseas Citizens

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Proposed period of performance: August 2011 to February 2013

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#### HH;iii TECHNICAL APPROACH AND JUSTIFICATION:

#### Executive Summary:

The State of Alaska is seeking the opportunity through the EASE grant to improve our services to Alaska's Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) voters by removing barriers to allow sufficient time for UOCAVA voters to apply, receive, vote and return their ballot in a secure and efficient manner. The EASE initiative will allow Alaska to continue efforts to research and evaluate innovative technologies and associated services that we believe will improve and increase the successful level of participation of UOCAVA voters.

Alaska's key program objectives include establishing and successfully improving electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates in each stage of the absentee voting process. Alaska believes these efforts can be shared and will benefit other jurisdictions.

Alaska established electronic tools for UOCAVA voters to receive and submit voter registration and absentee ballot applications through email and facsimile. In 2010, we introduced an online wizard application to improve the accuracy and to ease the process for completing both voter registration and absentee ballot applications. Alaska also provides an online method for UOCAVA voters to verify their registration status and to track the status of their absentee ballot application, ballot delivery and return.

Alaska law allows for the mailing of special advance ballots to UOCAVA voters who are overseas 60 days prior to Election Day as well as mailing the official ballot. In 1996, to assist our military voters, Alaska established facsimile voting. Alaska recognizes that facsimile voting for UOCAVA voters is an antiquated system and does not meet the needs of our men and women who-are serving our country or are overseas<u>and bB</u>allots delivered by mail are less likely to be received and mailed back in time to be counted.

It is Alaska's intent to seek proposals from vendors, in which to apply the funds from the EASE grant, towards the purchase and implementation of an online voter registration, absentee ballot request, electronic ballot delivery and automatic ballot duplicating system. An all inclusive system will allow UOCAVA voters to register, request and receive absentee ballots, allowing Alaska to expedite the process for UOCAVA voters. This will ensure UOCAVA voters the opportunity to vote and have their ballot counted. An automatic ballot duplicating system will remove the human error in-associated with manual ballot transcribing or hand counting and will reduce staff time and supplies. As part of this system, it is Alaska's intent to seek a system that will interface with Alaska's already-established existing ballot tracking system.

Ultimately, an online system will benefit the UOCAVA voters by removing barriers to access their ballot. Upon establishing an online electronic method, Alaska can be replicated by other jurisdictions to better serve UOCAVA voters.

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#### Goals and objectivesObjectives:

UOCAVA voters often experience failures associated with absentee voting.

Alaska's goal is to seek an online system with tools that allowallowing UOCAVA voters to have instant availability to register to vote, apply for an absentee ballot, seamlessly access their ballot online, receive instructions for voting and returning their ballot and automated duplication of the returned ballot. State of the art online tools will improve the participation and voter experience of the UOCAVA community. At the same time, an online system will analyze the implementation of efficient and innovative technology to reduce costs and error rate of the ballot return process.

#### Significance:

Ballot delivery through mail service and facsimile transmission is one of the key issues for receipt of ballots by UOCAVA voters. In 2008, the general absentee voting population had a return rate of 83.5% with 82% of the ballots being counted. UOCAVA voters had a return rate of 86% with 82% of the ballots counted. Many UOCAVA voters are in areas that are inare in remote areas and/or hostile locations in which mail service is slow and facsimile service is unavailable or intermittent. A web-based online electronic service is the only viable option for ballot delivery. Alaska's strategic approach is to reduce the failure rate of returned ballots to meet or exceed the general absentee population by obtaining an online web-based electronic delivery system that affords all UOCAVA voters more time to receive, vote and return their ballot successfully. In addition, Alaska foresees an increased of participation by UOCAVA voters and ballot return as the voting process will become more accessible. With this system, Alaska will also be reviewing the process for instructions and voting information.

An online ballot delivery system is significant in that fact that it will provide an easy method for UOCAVA voters to seamlessly access their ballot online using web-based tools. This will impact all UOCAVA voters by having instant availability of their ballots beginning 45 days prior to Election Day.

Research shows that UOCAVA voters experience a higher rate of failure in every stage of the voting process in comparison with the general voting population. An online system will address each phase through improved dissemination of the processes. Stages include:

- <u>Voter Registration</u>: Alaska will seek a system that establishes an online voter registration wizard.
- <u>Absentee Ballot Request</u>: Alaska will seek a system that will establish an online absentee application wizard to guide the voter through the completion and return of the absentee request.
- Online Absentee Ballot Access and Marking: Alaska will seek an electronic managements system that will deliver the unique ballot style based upon the voter's registration information through a secure and accessible online portal. The system will be required to inform the voter, via email notification of ballot availability. The system will be required to provide for instructions on voting, ballot return as well as help and support. The system will be required to coordinate with Alaska's website for voting information.

The system will be required to provide an intuitive onscreen marking wizard to-for voters

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that also provides with disabilities in compliance with for Section 508, and HAVA Section 508 compliant ballot to voters with disabilities. The system will be required to provide an interface to mark the ballot, including logic to prevent over voting and a warning for under voting as well as provide an opportunity for the voter to review, change and confirm ballot choices prior to finalizing their ballot.

 <u>Absentee Ballot Return and Automated Ballot Duplication</u>: The system will be required + to provide the voter with the facility to print their marked ballot, return instructions, oath and any other materials used for the correct return of the ballot as well as provide for bar code capability to automatically produce an optical scan ballot reflecting the ballot choices of the voter. Automatic ballot duplication will reduce staff, time and costs associated with manual transcription or hand-counting.

#### Sustainable:

Alaska will seek a system that:

- Is financially sustainable past year 2012. It is Alaska's intent to obtain a contract with a vendor that includes the costs of the initial one-time set-up fee, licensing and equipment purchase along with continued support, maintenance and upgrades through 2012. After 2012, Alaska will absorb the costs of continued support, maintenance and upgrades. Alaska believes the system will also provide for costs savings in the area of automated ballot duplication by substantially reducing staff hours and materials needed to perform the manual transcription of returned ballots.
- Uses advanced technology to provide information in which to report back to FVAP regarding the performance of the system that would include the number of requests for voter registration, absentee ballots and online absentee ballot access.
- Will provide a lower level of effort which can be sustained even if there is a decrease in the budget. The system would provide lower costs in ballot delivery, faster processing of returned absentee ballots and reliable duplication of ballots.
- Relies on advances in cryptographic protections, advances in web-based platforms technologies and is redundant, robust and reliable infrastructure setup to ensure sustainability.

#### Impact:

Alaska anticipates an online web-based system will increase the number of participants, the number of successfully returned ballots and the accuracy of the transcription of duplicating ballots. With the case of use and consistent availability over multiple election cycles, it will result in increased familiarity of the system and an expectation for increased usage by UOCAVA voters. Alaska will seek a system that will provide a Section 508, and HAVA compliant website that allows UOCAVA voters with disabilities the opportunity to vote using personal assistive devices.

#### Strategic Approach:

Alaska anticipates the innovation of implementing a web-based system will have significant improvement for UOCAVA voters by providing successful, sustainable and affordable

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electronic tools that will improve voting success rates for UOCAVA voters. It is Alaska's strategic approach to:

- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the number of successfully returned ballots to meet or exceed the general absentee voting population.
- Reduce human error caused by mismarking, over voting or under voting while allowing
  opportunity for voters to review and confirm ballot choices.
- Reduce the failure rate voters experience in each of the stages of the absentee voting process.
- Provide information that can benefit other jurisdictions.
- Provide security measures that will protect the voter's identifying information.
- · Provide findings generated from reports for research purposes.
- Reduce the number of staff to perform ballot manual transcription.
- · Reduce or eliminate the error rate in manually transcribing ballots.
- Reduce the amount of pre-printed ballots for manual transcription by replacing with a ballot on demand system.

#### Innovation:

It is Alaska's intent to seek innovative technological concepts that can lead to further development of processes, technology, products and techniques that can be replicated by other jurisdictions. Alaska will pursue a system that:

- Provides a bar code for automatic ballot duplication generated through an online marking wizard.
- Has progressive security measures to ensure voter privacy, voter verifiability, election integrity and system availability.
- Is expandable for use of Smart Phone technology.
- · Uses technology to gather user feedback.
- · Is expandable to provide for a secure personal account.

#### Scalability:

It is Alaska's intent to seek a system that can be used over multiple elections cycles, allow for changes in Alaska's laws and meet the needs of a broad range of voters and not decrease the level of performance and security. The system must allow for:

- An increase in the number of voters and ballot styles it can support.
- Expansion to include other types of voters (disabled and regular voters).
- Mass email communication to voters regarding election information and ballot availability.

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- · Bar code transcription which require less staff and lower costs.
- Mass email blasts of information to voters.
- Allow for secure personal account.
- Allow for multiple languages.

#### Collaborative:

Alaska is a single jurisdiction state regarding federal and state elections. Alaska will share information to other jurisdictions (states) regarding improvements to the voter registration, absentee voting process, ballot delivery and ballot transcription process.

#### **Cost Benefit Analysis:**

An improvement of this system for voters will be the development of the capability for Alaska's UOCAVA voters to obtain their ballots at a website. This method will be more secure and more accessible for voters than attaching a scanned ballot to<u>in</u> an email to the voters, as prescribed by National Institute of Standards and Technology (NIST) (NISTIR 7711: Security Best Practices for the Electronic Transmission of Election Materials for UOCAVA voters, and DRAFT NISTIR 7682: Information System Security Best Practices for UOCAVA-Supporting Systems). This will secure voting access for approximately 9,000 to 14,000 UOCAVA voters who currently participate by absentee ballot in Alaska.

An advantage for Alaska will be the system's ability to communicate and notify UOCAVA voters through electronic means. The system will automatically email voters a receipt and approval of their application and instructions on how to access their online ballot. For UOCAVA voters who have requested their ballot in advance of the 45 day ballot transmission deadline, an email reminder blast can be sent. At this time, Alaska mails reminder notices and either mails or faxes ballots to UOCAVA voters. In the past, this procedure has been performed by permanent and temporary employees of the Division of Elections that who are paid both wages and benefits. Sending the notices to UOCAVA voters costs the state approximately \$7,494 in wages, benefits, overhead and mailing costs per election cycle. For Mmailing the ballots it-costs the state approximately \$22,472 in wages, benefits and overhead per election cycle. Alaska anticipates that having an intuitive online voting method will increase participation.

The ability to interpret the choices on the returned ballot from a barcode reading will speed processing of the ballots for Alaska. Ballots that are sent electronically to UOCAVA voters and returned are unable to be scanned through an optical scan counting system. Currently Alaska manually duplicates each ballot using two election workers to transcribe the voters choices onto a machine scannable ballot, carefully accounting for each one. This process can take approximately five minutes per ballot. Currently, Alaska only provides for facsimile ballots and participation using this method is low for Alaska's UOCAVA voters. However, with the availability and case of an online system, Alaska anticipates an increase of voters participating in this method. Taking the time from five minutes to approximately five seconds to recreate the ballot will be a time savingsave time, expenses and reduce human errors. The savings will ensure that-more states use modern technology to enfranchise UOCAVA voters.

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#### Security Measures:

Alaska will seek a system that provides the following security measures:

- Information transmitted between voter's browser and election service is secured utilizing encryption.
- The selected system is hosted in a secure data center behind a layer of redundant firewalls and is under 24/7 physical and application monitoring to ensure the security, health and integrity of the system.
- The selected system infrastructure, including all hardware, software and security controls, are is monitored by trained onsite professionals. Physical and logical access control is limited to authorized personnel.
- · Require the system to consistently be updated with latest security patches.
- Require the software to be free of maliciously inserted source codes.
- Establish protocol to establish a separate authentic and encrypted communication channel with each user.
- Require that election material, such as ballot definitions, are digitally signed to protect integrity and are encrypted while in transit.
- Require all personal identifying information be protected through application level encryption.
- Ensure that digital barcodes used for ballot duplication are encoded with ballot preferences only. No personal information is stored on duplication barcode.
- Selected vendor must strictly adhere to the NIST guidelines for encryption, thread modeling, physical server security and tamper-detection.
- · Ensure that voting preferences are never stored or saved on the server.

#### Schedule and Milestones:

Alaska has identified the following schedule and milestones based upon the award date of August 1, 2011:

 Alaska prepares and publishes Invitation to Bid Schedule: August 2011 – approximately 45 days

This phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark for success. Alaska will conduct research into technological, legal and logistical requirements which affect the development, feasibility, sustainability and acceptance of an improved UOCAVA voting solution. Alaska, based upon research gathered, will prepare the specifications for the UOCAVA voting solutions for an Invitation to Bid document.

Milestones:

- Completion of research of UOCAVA solution.
- · Completion of Invitation to Bid document.
- Selection of vendor.
- 2. Initiation and planning phase with vendor Schedule: September 2011 – approximately 30 days

The initiation and planning phase will start the project and introduce all stakeholders. During this phase, full project management and quality management plans will be

developed including a detailed schedule, work breakdown structure, statement of work with the vendor, project goals and the approach to achieve them as well as a risk management plan.

Milestones:

- · Completion of project management plan.
- · Completion of quality management plan.

### 3. Delivery, set-up, testing and training

Schedule: October 2011 - approximately 60 days

The delivery, set-up and testing phase will implement the UOCAVA solution in preparation of the first election and continuously through the 2012 elections.

#### Milestones:

- · Delivery and set-up of equipment.
- Delivery, customization and activation of software.
- Completion of client User Acceptance Testing.
- Training of key elections staff.

#### 4. Go Live and Close close of Electionselections

Schedule: January 1, 2012 - approximately 335 days

The Go Live phase will initiate the first day voters can register to vote, apply for an absentee ballot and vote online. After each election, Alaska will collect data, analyze statistics and trends and review findings against the overall goals and objectives of the program. Based upon the findings, Alaska will either continue with current approach or make alterations to the program plan.

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Milestones:

- Primary Election completion.
- · Analysis of statistics and trends of Primary Election.
- General Election completion.
- · Analysis of statistics and trends of General Election.

#### 5. Final Analysis analysis and Reporting reporting

Schedule: December 1, 2012 - approximately 90 days

During the final analysis and reporting phase, research data will be aggregated and final report will be written. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned and a cost-benefit analysis.

Milestones:

· Completion of system program final report.

#### ReportingReports:

#### Programmatic and Financial Progress Reports:

Alaska's will prepare programmatic and financial progress reports as required by FVAP. Each report will include:

- Overall status.
- Goals and objective progress.
- Highlights for the current reporting period.
- Milestones.
- · Financial progress report.

#### **Data Collection Points Reports:**

For each election, Alaska will ensure that the selected system will collect data for analysis for each phase of the voting process. This includes:

- Number of first time voter access.
- Number of registration requests.
- Number of absentee application requests.
- Number of ballot requests.
- Number of ballot styles supported.
- Number of ballot styles downloaded.
- Number of ballots successfully returned.
- Number of ballots not returned.
- · Types and number of problems incurred.
- · Number of email notifications sent successfully or unsuccessfully.
- Voter feedback through online survey.
- · Customer services and help desk log reports.
- The final report will include findings and conclusions for each of the following areas:

Final Report:

- Overall
  - Financial
  - Security
  - Significance
  - Sustainability
  - Ousianaoning
     Creatures
- Co

Strategy

- Impact
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefit

#### HI-iv. MANAGEMENT APPROACH:

Personnel and Contractor:

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2. Contractor will be selected through an Invitation to Bid process.

#### Introduction:

One of the primary challenges faced by UOCAVA voters is the length of time required between registration and the time of actual voting. Alaska will pursue an online system will allowing UOCAVA voters to complete the FPCA or state application. The form will be made available in a consistent location on the state website. This same site will allow access to the ballot marking solution, as well as other necessary links for UCOAVA voters. Once the form is completed online, it will be matched against the statewide voter registration database to determine eligibility for absentee voting. Once approved, the voter will receive the appropriate instructions for the next steps of the election process. By-aAutomating the UOCAVA absentee request process and-will allowing registered voters to cast their ballot immediately or beginning 45 days prior to Election Day-\_\_thisThese enhancements willaims to reduce the time required for currently disenfranchised voters to complete and return their ballot, increasing ballot completion rates and reducing failure rates for these voters.

Another key challenge faced by UOCAVA voters is the length of time required for absentee ballot delivery and return. Alaska will pursue an online electronic ballot delivery system to allow for UOCAVA voters to have immediate access to their ballot following the MOVE Act; ballot delivery beginning 45 days prior to Election Day. An online electronic delivery method removes the obstacle of mailing a ballot to the voter through the postal service and eliminates the issue of ballot mailing address changes. The earlier the UOCAVA voter receives their ballot, the success rate increases of of the voter, having sufficient time to vote and return their ballot, increases. In addition, an online electronic delivery system will allow UOCAVA voters, who reside in remote areas where mail service is slow and facsimile service is intermittent or not available, immediate ballot access. Alaska will seek an online electronic delivery system that assists the voter by providing clear instructions, eliminates human error by preventing spoiled ballots using logic to prevent over voting, and provides for a warning for under voting.

To determine success of the online electronic delivery system, Alaska will ensure tracking requirements of the system and will compare failure rates with a similar previous election. It is

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Alaska's strategic approach to increase the success rate of UOCAVA ballots returned and counted to meet or exceed the general absentee voting population. In 2008, the general absentee voting population had a return rate of 83.5% with 82% of the ballots being counted. UOCAVA voters had a return rate of 86% with 82% of the ballots counted. Alaska will also track overall participation to continue to increase voter population of the UOCAVA voters.

Paper ballots returned to Alaska currently require manual duplication process or hand counting. Manual duplication increases costs in higher staff needs, time and the cost of preprinted ballots used for duplication. Manual duplication also is also at risk for human error when transcribing the voters choices. If ballot duplication is not performed, a hand count is necessary. Again, this process requires higher staff needs, time and is at risk for human error when tallying the votes. It is Alaska's intent to apply EASE grant funds towards a system that will automate this process through a ballot-on-demand type system. An automatic ballot duplication system will automatically duplicate the ballot into-onto an accurate optical scan ballot. This system will eliminate human error in processing the UOCAVA ballots.

It is Alaska's intent to form a strategic alliance with the selected vendor to provide the necessary technology and tools to allow Alaska to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. Alaska intends on using an organized project management methodology with the selected vendor to achieve these goals in a sustainable and organized way. The program will include military and overseas voters, key election personnel and the selected vendor to help guide the direction of the program and analyze the results.

#### Strategic Goals:

Alaska's goal is to obtain a system that will deploy secure online tools and will assess the ability of such tools to improve the participation and voter experience of UOCAVA voters. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each <u>point-stage</u> in the absentee voting process, particularly in the processing of documents and ballots received from voters.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

#### **Objectives:**

- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the number of successfully returned ballots to meet or exceed the general absentee voting population.
- Reduce human error caused by mismarking, over voting or under voting while allowing
  opportunity for voters to review and confirm ballot choices.
- Reduce the failure rate voters experience in each of the stages of the absentee voting process.
- Provide information that can benefit other jurisdictions.
- Provide security measures that will protect the voter's identifying information.

- · Provide findings generated from reports for research purposes.
- · Reduce the number of staff to perform ballot manual transcription.
- · Reduce or eliminate the error rate in manually transcribing the ballots.
- Reduce the amount of pre-printed ballots for manual transcription by replacing with ballot on demand system.

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#### Analysis and measurement-Measurement of current-Current processesProcesses:

Online Voter Registration and Absentee Request: Currently, Alaska utilizes an online wizard for voter registration and absentee voting requests, and voters Voters may submit their application by mail, fax or as an email attachment. This method does not provide for automatic emailing email response to the voter that their request has been received.

#### Online Electronic Ballot Delivery:

Currently Alaska's only method for electronic delivery is by facsimile machine. Alaska acknowledges that this method of voting does not lend itself to UOCAVA voters who do not have access to a facsimile machine and is an antiquated system of delivery. Not only is this system cumbersome to UOCAVA voters, it poses difficulties to Alaska in transmitting ballots due to different time zones, availability of facsimile machines and intermittent service.

#### Automatic Ballot Duplication:

Alaska prepares for ballot duplication by ordering, through the printer, a quantity of blank ballots for each ballot style marked specifically for ballot duplication. Teams of two work together duplicating the ballot. One person reads the ballot choices while the second person records the ballot choices. Original ballots and duplicated ballots are placed in separate envelopes and forwarded to the counting teams. For hand counting, teams of three work together. One person reads the ballot choices while the other two members people record in an original and duplicate tally book the ballot choices. Both processes are labor intensive and require a large number of election workers to complete, as they must be a politically balanced— teams.

# Identification of eEach process-Process and the elements-Elements that are related-Related to the processes Processes:

#### Online Voter Registration and Absentee Request:

- Development of the online version of the Federal Post Card Application and/or state approved application.
- Introduction of Alaska registration database.
- · Testing of the application information integration with the online version of the ballot.
- Release of the combined system to UOCAVA voters.
- Reporting of final results.

#### **Online Electronic Ballot Delivery:**

- Provide for compliant website for UOCAVA voters to identify themselves uniquely and receive their correct ballot style, based upon their registration.
- Provide a system that will prevent over voting, a warning for under voting and allows the UOCAVA voter the opportunity to confirm and verify their ballot.

- Provide UOCAVA voters access to voting instructions and voting-materials that would will be helpful to the voter, such as, a voter guide, as well as instructions and online help.
- Voting package to include required oath and affirmation, envelope templates and return instructions.

#### Automatic Ballot Duplication:

- Ballot to include barcode technology containing the voters ballot choices (including write-ins).
- Upon receipt of returned ballots, Alaska will scan the bar code into the chosen ballot-ondemand system to automatically duplicate the ballot into an optical scan ballot.
- · The duplicated ballot is scanned into the counting system.

## Identification of potential Potential risks Risks and mitigating Mitigating strategiesStrategies:

An assessment of the procedural process as well as possible security risks will be conducted and reviewed. As obstacles are identified, acceptable solutions will be selected and implemented to correct deficiency.

## Formalization of performance-Performance indicators-Indicators for each-Each processProcess:

#### Online Voter Registration and Absentee Request:

- Increase in registration and absentee requests by UOCAVA voters.
- UOCAVA voters save money in handling costs to mail an application.
- Reduce errors in processing the application.
- . Reduce the failure rate-UOCAVA voters-voter's failure rate. experience-

#### **Online Electronic Ballot Delivery:**

- Online satisfaction survey from UOCAVA voters.
- Increase the number of ballot successfully returned.
- Increase in voter participation.

#### Automatic Ballot Duplication:

- Reduce costs, by reducing the time required for staff to manually duplicate or hand count the ballots.
- Improve the timeline for processing and counting UOCAVA ballots.
- · Allows Alaska to support more UOCAVA voters without increasing staff, time or costs.

### Justification for the modification-Modification to the existing Existing processes-Processes and projections-Projections of the effectiveness-Effectiveness of

#### modifications Modifications:

This portion of the research effort will seek to refine and propose exactly how an online system can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of Alaska's voters in a significant, sustainable, impactfuleffective, innovative and scalable way. The expectation is to mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following

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Stage	Description of Modification	Justification	Projection
Voter Registration	Provide for online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way increases the number of voters who successfully register to vote on time.
Absentee Ballot Request	Provide an online absentee ballot request wizard which will guide the voter through the completion and return of the absentee request.	Traditional postal delivery and return of ballot requests introduce delays into the process which may delay future steps. Voters can often forget when a ballot request is due for an electionor are not aware of ballot request deadlines, or may <u>not</u> complete it incorrectly.	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them correctly.
Absentee Ballot Delivery	Provide online ballot delivery of district specific ballots via a secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the online portal will provide instructions for all screens, a help and support section to assist with multiple help topics and other helpful tools.	Traditional postal delivery of ballots can be lengthy and unpredictable. It is also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	The electronic delivery of ballots through a secure internet based portal will provide consistent access to eligible voters which will improve the successful completion and return rates of ballots.
Absentee Ballot Marking	Provide for an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive	Some absentce voters have difficulty understanding ballot content and completing ballots correctly. Voters with disabilities face	Voters who use an intuitive and accessible onscreen marking interface will have a higher probability of

provides a description of proposed modification, the justification and the projection for the modification for each stage in the absentee voting process.

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	devices which may be used by	significant problems	completing the ballot
	voters with disabilities. The	marking paper ballots.	correctly which will
	ballot marking wizard also	Furthermore, manual	increase the number
	provides conventional	duplication is often	of ballots returned
	protections against common	required of ballots	successfully.
	mistakes made by voters,	which are returned.	The ballot duplication
	including over votes and	When a voter uses the	mechanism will
	under votes. The ballot	onscreen marking	provide greater
	marking wizard always	wizard, the system will	operational
	concludes with a review	provide for a	efficiencies in the
	screen where the voter can	mechanism for	return processing of
	confirm tallowing the voter to	theallowing for	the ballot.
	confirm the selections made	automated duplication	
	or elect to change-make	to an optical scan ballot.	
	changes them-before	-	
	generating the marked ballot.		
Absentee	Provide voters return	Voters can-get-confused	The use of an online
Ballot	information along with the	or havmay often have e	electronic portal to
Return and	ballot will help facilitate the	misunderstandings	provide correct return
Tabulation	correct return. To provide	about how and when to	information and
	faster and more accurate	return their ballot.	return documents wi
	processing, ballots will	Voters are often not	improve the case and
	contain the ballot choice	aware of when their	rate of successful
	barcode which assist in the	ballot is returned	return of ballots.
	automated duplication of	received and if it was	Automated interfaces
	returned paper ballots into	accepted.	and the use of
	optical scan format for	Furthermore, without	barcodes will shorter
	tabulation. Ballot return	automated interfaces,	the processing delay
	tracking updates are provided	there are delays in the	and shorten the time
	to the voter immediately upon	processing and tracking	it takes to provide
	processing through email	of ballots.	tracking information
	notifications.	1	to voters.

#### Measurements of performancePerformance:

To ensure that the project is developing as expected, performance management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve goals and objectives while testing the hypothesis in a quantifiable and reportable way.
- To deliver the agreed project outcomes on schedule and within budget.
- · To manage the project using a defined and documented methodology.

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success
-----------	------------------------

Improve the rate of completed	At each step in the absentee voting process, the number
UOCAVA voting transactions from	of voters who complete each phase of the process
registration to ballot return.	increases. This will be measured on a per election basis,
-	comparing previous election of that type to the current
	election. For example, the 2012 Primary Election will be
	compared with the 2008 Primary Election.

Increase the percentage of	For each Federal Election, there is an increase in
UOCAVA voters participating and	percentage of UOCAVA voters who participate in at least
voting in Federal Elections.	one portion of the voting process.
Reduce the failure rates for	Based on a comparison of the average failure rates for
UOCAVA voters experienced in	each stage in the absentee voting process with the failure
each of the various stages of the	rates of the current election, there is a decrease in the
absentee voting process.	failure rate in each stage.
Provide tools and services that can	The solution provided supports the legal, procedural, and
benefit other jurisdictions.	technical requirements of other jurisdictions.
Provide security measures to	Data collected through system audit logs, internal
protect users' personal identifying	auditing, and interactions with voters does not indicate
information and any transmitted	that any user's personal identifying information or
election material.	sensitive election material was compromised in any way.
Provide evidence and findings	Reports provided must include reliable data, complete
generated from authoritative and	analysis, and discerning conclusions for each of the
documented research efforts to	objectives above.
measure and report on the success	
of the previous objectives.	

#### v. MANAGEMENT APPROACH BUDGET PROPOSAL:

#### Direct Labor:

It is Alaska's intention to absorb all direct labor costs for current full-time division employees.

#### Administrative and clerical Clerical laborLabor:

Alaska anticipates the employment of two temporary employees for two periods of time; from June 2012 through November 2012.

Temporary Employee	Date	Computation	Cost
Two Absentee Clerks (10/A)	June, 2012	21 days x 8 hours per day x \$17.11 per hour x two employees	\$5,748
Two Absentee Clerks (10/A)	July – November, 2012	110 days x 8 hours per day x \$17.45 per hour x two employees	\$30,712
		Total:	

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#### Fringe Benefits and Indirect costs-Costs (F&A, Overhead, G&A, etc.):

Alaska does not foreseen any fringe benefits.

#### Travel:

Alaska anticipates a\_one-time training for employees in regional offices who will process voted returned ballot using the automated ballot duplication system as follows:

Purpose	Destination	Item	Cost
Training One Employee	Nome to Anchorage	Airfare	\$467
	_	Hotel	\$181
		Per Diem	\$104
		Car	\$63
Training One Employee	Fairbanks to Anchorage	Airfare	\$354
		Hotel	\$181
		Per Diem	\$104
		Car	\$63
Training Two Employees	Juneau to Anchorage	Airfare x 2 people	\$708
		Hotel x 2 people	\$362
		Per Diem x 2 people	\$208
		Car	\$63
		Total:	\$2,858

#### Subcontracts/sub-Sub awardsAwards:

Online Voter Registration and Absentee Ballot Request	Year 1 (2012)
License Fee (one-time fee)	

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Annual Maintenance	Included
Total:	

Online Absentee Ballot Access and Marking	Year 1 (2012)
License Fee	EC = \$125,000
(one-time fee)	Scytl = \$250,00
Annual Maintenance or	EC = Included
Subscription	Scytl = \$125,000
Ballot Processing Per	EC = \$10,000
Election	Scytl = \$14,394
Total:	

#### Consultants:

Alaska does not foresee arrangements with a consultant.

Equipment: Voted ballots are returned by the voters for processing to Alaska's satellite office or one of Alaska's four regional offices and one satellite office. Alaska plans on five automatic ballot duplicating systems for each office for processing the voted returned ballot:

Automated Ballot Duplication System	Year 1 (2012)
Printer, Feed Tray, Desktop Computer and Sheet Fed Scanner (one time purchase)	\$86,000
Conversion Software (one time fee)	\$22,500
Shipping, Installation and Training	\$9,400

(one time fee)	
Annual Software License and Maintenance	Included
Election Support Costs (per election)	\$1,400
Total:	\$41,900

### Materials and Supplies:

Scytl had these costs not sure	
what they were for but asked	26,269
and am waiting	

#### Other Direct Costs:

Scytl had these costs not sure what they were for but asked	4,086
and am waiting	

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### 1. Technical Proposal

### Catalog of Federal Domestic Assistance Number: 12.217

BAA number: H98210-BAA-11-0001

Title of proposal:	Electronic Absentee Systems for Election Grant Applications
CAGE Code:	(b)(4)
DUNs Number:	(b)(4)

Applicant:	Arkansas Secretary of State's Office
Sub Contractors:	Election Systems and Software, Inc and Scytl USA LLC

### Arkansas Secretary of State's Office Technical contact:

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### Arkansas Secretary of State's Office Administrative/ business contact:

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Fax:	501-683-3732
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Period of Performance: September 2011 to December 2016

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### 3. Technical Approach and Justification

### 3.1. Executive Summary

While running a state-wide campaign for Secretary of State and three district campaigns for State Representative, Arkansas Secretary of State Mark Martin saw first-hand that every vote was important and every voter needed the ability to cast their vote in a timely, secure manner in order to have their voice heard. Unfortunately, due to his prior service in the United States Navy as a sub-mariner, Secretary Martin learned first-hand that the voices of members of our active-duty armed forces are not always heard, because they can not get their ballot in a timely, secure manner.

With personal knowledge of the challenges faced by UOCAVA voters, as well as the planned deployment in 2012 of over 3,000 Arkansans from the 39<sup>th</sup> Engineering Brigade, Secretary Martin is committed to changing the system. Immediately after taking office, Secretary Martin worked with the Arkansas Legislature to pass two key pieces of legislation. The first, Act 1185 of 2011, guarantees that absentee ballots will be sent to UOCAVA voters at least 46 days prior to all state elections, not just federal elections. The second, Act 1188 of 2011, authorizes the electronic transmission of election material. UOCAVA voters can now utilize all electronic means (not just fax machines) to request and receive all election material including, but not limited to voter registration applications, absentee ballot applications, and if funding is available, absentee ballots. The legislation also authorizes, if funding is available, the development of a free access system to verify that UOCAVA absentee ballots have been received.

Funding through the Electronic Absentee Systems for Elections (E.A.S.E.) Grants made available by the Department of Defense will allow the system to be implemented. Due to the intense poverty in the State, it will allow many counties who do not have the resources to afford this technology to fully participate. Partnering with ES&S and Scytl, as well as academic researchers from Cal Tech University and the University of Utah, the Arkansas Secretary of State will implement the UOCAVA System Enhancement Research (USE) Program.

The USE Program will provide electronic systems for UOCAVA voters that are innovative, repeatable, sustainable, and affordable, and will reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The Arkansas Secretary of State believes the efficacy of our efforts can be shared. The diversity of Arkansas' counties – ranging from the urban and moderately affluent counties in central and northwest Arkansas to the poverty-stricken and rural Delta counties – should provide research information that will benefit a number of different jurisdictions around the country.

Seventy-two of Arkansas' seventy-five counties currently utilize ES&S voting devices and technology for preparation of paper ballots. All seventy-five Arkansas counties utilize ES&S for voter registration. The current relationship between ES&S and the State of Arkansas should ensure a seamless delivery of data and increase the confidence of the county clerks who will utilize the USE Program.

The Arkansas Secretary of State views the collaboration with ES&S and Scytl and their electronic absentee balloting product – BALLOT*safe*, as the best solution for Arkansas.

### 3.2. Goals and Objectives

### 3.2.1. UOCAVA System Enhancement Research (USE) Program Overview

The Arkansas Secretary of State's Office proposes a UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate in the ballot return process.

### 3.2.2. Factors Achieved

The Arkansas Secretary of State's Office believes that our unique assets, capabilities, locations, and personnel through the UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl will foster and develop products and processes which will lessen the impediments that exist for the UOCAVA voter and will strongly address the Evaluation Factors stipulated in the FVAP EASE Grants program. For example, these factors are achievable through the deployment and use of the BALLOT*safe* solution complimented with customizations for Arkansas and related research and analysis. Our research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

### 3.2.2.1. Significance

Research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate. The failure rate for UOCAVA voters in Arkansas is alarmingly high. In 2008, of the 6,515 UOCAVA ballots transmitted, only 4,028 were returned and submitted for counting. That's only 61.82 percent. In 2010, that percentage decreased to 47.08. Those numbers must be improved. The USE Program will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- Voter Registration BALLOT*safe* will work in coordination with any online voter registration system and through the use of tools and procedures will provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot Request BALLOT*safe* will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT*safe* to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.
- Absentee Ballot Delivery BALLOT*safe* will utilize the ballot data from any Arkansas election management system and deliver the precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT*safe* online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.

• Absentee Ballot Return and Tabulation – BALLOT*safe* will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT*safe* will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore if state law permits and the state chooses, ballots may contain the ballot choice barcode which assists in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately through BALLOT*safe* and through email notifications.

### 3.2.2.2. Sustainable

The Arkansas Secretary of State's Office is focused on constructed cost-effective and sustainable solutions which successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in Arkansas's assessment of sustainability shown below. The Arkansas Secretary of State's Office believes these factors are achievable through a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. Arkansas will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the USE Program. Further information can be found in the ROI analysis provided in the Budget Proposal.
- The program and solution will be **logistically sustainable**. The USE Program will seek to realize operational efficiencies over the current processes through the BALLOT*safe* technology which will provide a lower level of effort which can be sustained even with decreasing budgets. Examples of this include easier exchange of ballot and voter information between technology systems, less effort and cost in the delivery of ballots electronically, quicker processing of returned absentee ballots, and quicker and more reliable replication of ballots upon return.
- The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform which relies on advances in cryptographic protections, advances in Java based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

By selecting the ES&S/Scytl product offering of BALLOT*safe* Arkansas is ensured of a long term commitment from a vendor who has a long history of election experience and can continue to provide updates and enhancements to the product for many years to come. Furthermore, by incorporating the cost for the USE Program through the year 2016, Arkansas is ensuring a consistent and sustaining offering to its voters and election officials. Also, utilizing multiple election cycles to gather and analyze statistics and feedback will strengthen the USE Program's findings and allow for a greater impact and significance. Specifically, the Arkansas Secretary of State's Office expects to support the following through 2016:

- Maintain BALLOT*safe* services with ES&S and Scytl through an annual Right to Use License
- Ongoing research and evaluation of BALLOT*safe* for each election cycle
- Generation of Election Analysis and Assessment Reports (EAAR) after major elections

### 3.2.2.3. Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage which provides for the broadest impact to voters and election officials. Some advanced concepts which may be utilized by the State of Arkansas will provide greater impact to voters. They are:

- Sample Ballot The sample ballot feature of BALLOT*safe* allows voters the opportunity to access the jurisdiction's sample ballot before the election. Through the election official's interface, officials are allowed to publish campaign statements from candidates as well as additional information that will be available to voters in the sample ballot.
- News Feed BALLOT*safe* provides specific news feed to voters. The news feed is provided in a sidebar of the voter web site and includes news events generated by the local election official. As desired, the news feed may also be linked to FVAP or the jurisdiction's social media feeds.
- Accessibility BALLOT*safe* has been purposefully constructed to be in compliance with the applicable web accessibility standards and to provide an intuitive interaction when being understood or controlled through personal assistive devices. Below are the usability and accessibility standards which BALLOT*safe* follows:
  - Web Content Accessibility Guidelines (WCAG) 2.0
  - o User Agent Accessibility Guidelines (UAAG) 1.0
  - Section 508 of the US Rehabilitation Act, Web-based Intranet and Internet Information and Applications (1194.22)
  - NIST Accessibility and Usability Considerations of Remote Voting Systems, Draft – June 28, 2010

### 3.2.2.4. Strategic approach

The Arkansas Secretary of State's Office has presented a credible hypothesis and will provide a well-defined and appropriate plan to test that hypothesis. The plan is further defined in 3.3 Schedule and Milestones and the Management Approach, Section 4. We believe the hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

### 3.2.2.5. Innovation

The USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The Arkansas Secretary of State's Office believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of BALLOT*safe* which may be selected:

• Security. The groundbreaking cryptographic protocols inherent in BALLOT*safe* provide elections with the highest levels of security, in terms of voter's privacy, voter verifiability, election integrity, system availability, and access control. BALLOT*safe* provides security through the use of a physically secure data center, complete redundancy of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.

- Ballot Choice Barcode. BALLOT*scafe* provides accurate and reliable automated remake of returned ballots with its ballot choice barcode feature. Using a barcode on a ballot generated through the voter's onscreen marking wizard, the ballot choice barcode can replicate the voter's selections onto the local jurisdictions optical scan readable ballot.
- Social Media Interaction. BALLOT*safe* provides mechanisms for the voter to interact with social media content (Facebook, Twitter, etc) through BALLOT*safe*. This is done through multiple concepts such as a Newsfeed and interactive sample ballots.
- FPCA barcode. BALLOT*safe* provides a feature whereby the voter can complete an FPCA through the BALLOT*safe* FPCA wizard with an absentee data barcode. This barcode provides for the automated exchange of the voter's information from the FPCA through an FPCA import module, and into the local voter registration processing queue. This reduces the need to manually enter voter information.
- UOCAVA community forum. With BALLOT*safe*, ES&S and Scytl have established and will maintain a pipeline of ideas, techniques and best practices of election officials and their services for UOCAVA voters. This is done through a secure online data repository and message board.

### 3.2.2.6. Scalability

The USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGi. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of:

- Usage increases in the number of voters and number of ballots styles it can support;
- Impact changes to and increases in the types of voters and their requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality which it employs.

Furthermore, our agreement with ES&S and Scytl is to obtain all of the existing features and functionality of BALLOT*safe* regardless of our current need. With the ability to access and use features if selected by the state on an as needed basis thereafter, we are able to adjust our growth and use of the product in such a way that we can meet the demands of tomorrow as easily as the demands of today.

## 3.2.2.7. Collaborative

The Arkansas Secretary of State's Office has designed the USE Program to be a collaborative program involving key election technology providers – ES&S and Scytl, reputable academic researchers from Cal Tech University and University of Utah, and other election jurisdictions through a data and experience sharing portal in BALLOT*safe*. This consortium of election officials, election service and system providers, and researchers will collaborate together to address and improve the absentee voting process. To do this, we will use a six-sigma approach to improving existing business processes:

• Define the problem, the voice of the customer (i.e. the voter), and the project goals.

- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current processes based upon data analysis to create an improved, future state process.
- *Control* the future state process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

### 3.2.2.8. Cost Benefit Analysis

Each major component of BALLOT*safe* can separately, or in total, be evaluated for ROI against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

### 3.2.3. Security Measures

The USE Program will provide administrative, technical, and physical controls to protect voter personal identifying information (PII) and sensitive election material. At a minimum, **administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by ES&S and Scytl through the BALLOT*safe* solution. First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls and where it is under 24/7 physical and application monitoring to ensure the security, health and integrity of the system around the clock. The infrastructure, including all hardware, software, and security controls are also monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software to be free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to seamlessly verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect voters' identifying information from ever being associated with their ballot selections.

### 3.3. Schedule and Milestones

The Arkansas Secretary of State's Office has identified the following as the initial schedule assuming an award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

### 1. Initiation and Planning Phase

Start Date: August 1, 2011 Duration: 45 days

The initiation and planning phase will initialize the project and introduce all stakeholders. During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown structure, statement of work with each sub-contractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

- a) Completion of Project Management Plan
- b) Completion of Quality Management Plan

### 2. Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

With the program stakeholders, this phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success in this area. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution amongst the stakeholders. The approach will lead into a detailed requirements gathering and specification development effort to capture the analysis into quantifiable measures necessary to improve the UOCAVA voting process. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of these will be addressed directly through BALLOT*safe* while others will be addressed through policy changes.

Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization

### 3. Technology Modernization

Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for the customization, activation, and outreach efforts in preparation for the first election and continuously through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase 2, BALLOT*safe* and other systems will be customized to address Arkansas's requirements such that UOCAVA voters are best supported.
- Voter Education During this phase, voters will be notified of the modernization and how it impacts them through multiple communication channels.

• Integration and Testing – The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters.

Milestones:

- a) Technology Modernization Completion Primary Election
- b) Technology Modernization Completion General Election

### 4. Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the USE Program to enhance the technology and services provided to UOCAVA voters. Each progressive election will include greater enhancements to achieve the incremental goals established in phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan. Please note, Arkansas does not have a separate Presidential Primary election.

Milestones:

- a) Completion of Election Analysis and Assessment Report Primary Election
- b) Primary Election Completion
- c) Completion of Election Analysis and Assessment Report Primary Election
- d) General Election Completion
- e) Completion of Election Analysis and Assessment Report General Election

### 5. Final Analysis and Reporting

### Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase will collect the relevant data from the 2012 General Election(s) as well as reports and data from the previous elections. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of USE Program Final Report

### 3.4. Reports

### 1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Arkansas Secretary of State's Office will prepare quarterly programmatic and financial progress reports. For the purposes of the USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

The financial progress report will provided:

• Will be provided in accordance with project requirements and schedule.

The following programmatic and financial progress reports will be prepared:

- a. Fourth Quarter 2011 Programmatic and Financial Progress Reports
- b. First Quarter 2012 Programmatic and Financial Progress Reports
- c. Second Quarter 2012 Programmatic and Financial Progress Reports
- d. Third Quarter 2012 Programmatic and Financial Progress Reports
- e. Fourth Quarter 2012 Programmatic and Financial Progress Reports
- f. First Quarter 2013 Programmatic and Financial Progress Reports

### 2. Data collection points reports

There will be several data collection point reports prepared throughout the USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned

- Types and number of problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

- a. Primary Election EAAR
- b. General Election EAAR (will be incorporated in the Final Report)

### 3. Final Report

The USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

#### 4. Management Approach

#### 4.1. Introduction

ES&S and Scytl have formed a strategic alliance to provide the necessary technology and tools to allow Arkansas to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. The Arkansas Secretary of State's Office intends on using an organized project management methodology with ES&S and Scytl to achieve these goals in a sustainable and organized way. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, local election personnel, and election officials from other jurisdictions. This cooperative of the Arkansas Secretary of State's Office, election officials, election service and system providers, and researchers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved, future state process.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

#### 4.2. Project Organization

#### 4.2.1. Project Director

The Arkansas Secretary of State's Office will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

#### 4.2.2. Project Steering Committee

The project steering committee will be comprised of the project director, project manager, key personnel from ES&S and Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with the strategic goals and objectives and key factors in Section 4.4.

#### 4.2.3. Project Manager

Election Systems and Software (ES&S) will serve as project manager for the USE Program. ES&S maintains a global team of PMI certified Project Management Professionals and Elections Experts with specific experience in election solution implementations. The ES&S Project Management Office (PMO) has over 285 years of combined elections experience, which has allowed the PMO to develop election specific best practices to accommodate the unique and challenging aspects of the election industry. This team of professionals is trained to manage projects pursuant to the Project Management Institute's project management principles. Each Project Manager is supported by a team of Technical Engineers, Subject Matter Experts, and Support Specialists to assure that each aspect of the project is managed effectively and efficiently.

#### 4.2.4. Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project manager and will be responsible for data collection and analysis. The research team will form hypotheses and will report findings. All research products will be validated with the steering committee which will prepare the conclusions.

#### 4.3. Project Resources

#### 4.3.1. ES&S

ES&S and Scytl will work collaboratively to leverage the strengths of each company for the purpose of installing and supporting the BALLOT*safe* system. Specifically, ES&S will provide development expertise in the areas of system integration for voter registration and election management systems. The ES&S training department will provide instructional information and facilitate training activities. The ES&S support group will install and coordinate the usage of BALLOT*safe* with Scytl subject matter experts. The ES&S Helpdesk will provide 1<sup>st</sup> and 2<sup>nd</sup> tier level support to the State and local election officials and ES&S and Scytl will work jointly to provide any 3<sup>rd</sup> tier level support required.

#### 4.3.2. Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the USE Program, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department.

#### 4.3.3. Academic Researchers

The USE Program will utilize outside academic researchers – Michael Alvarez and Thad Hall – for some of the research and analysis efforts. In their academic careers, they have focused on elections, voting behavior, election technology, and research methodologies. The Arkansas Secretary of State's Office believes that the addition of these experts will enhance the quality of the program's research and assist in tackling some of the prevalent challenges facing democratic elections.

#### 4.4. Project Strategic Goals

The UOCAVA System Enhancement Research (USE) Program will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters. In addition, when the system has been demonstrated a success with UOCAVA voters, Arkansas intends to extend its utilization to other voters, including those with disabilities.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

#### **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.
- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), Arkansas will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

**Plan:** Implement tools and services provided by ES&S and Scytl in a phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving Arkansas's capabilities to support our overseas voter population.

#### 4.5. Research Methodology

The USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

#### 4.5.1. Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis, considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

#### 4.5.2. Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies to better meet their needs. As a starting point, the Arkansas Secretary of State's Office knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens who are located in remote locations. In addition, although active duty military members complete Federal Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, Arkansas citizens are likely to experience widely divergent voting experiences depending upon their country of residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries also varies widely. The aforementioned are but a few of the well known challenges faced by our overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

#### 4.5.3. Technology Enhancements

While Arkansas is already aware of many areas where BALLOT*safe* can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of Arkansas's voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT. <i>safe</i> will work in coordination with online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on time.
Absentee Ballot Request	BALLOT <i>safe</i> will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT <i>safe</i> to track the return and processing of the AB request. With an account, the voter	Traditional postal delivery and return of ballot requests introduce unpredictable delays into the process which delay future steps. Voters can often forget when a	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them

	will also be able to setup email reminders to complete requests for each election.	ballot request is due for an election or may complete it incorrectly.	correctly.
Absentee Ballot Delivery	BALLOT <i>safe</i> will provide online ballot delivery of precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT <i>safe</i> online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	Traditional postal delivery of ballots is lengthy and unpredictable. It is also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	The electronic delivery of ballots through a secure internet based portal will provide consistent access to eligible voters which will improve the successful completion and return rates of ballots.
Absentee Ballot Return and Tabulation	BALLOTsafe will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOTsafe will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, if selected by the state ballots may contain the ballot choice barcode which assist in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately upon processing through BALLOTsafe and through email notifications.	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their ballot is returned and if it was accepted. Furthermore, without automated interfaces, there are delays in the processing and tracking of ballots.	The use of an online electronic portal to provide correct return information and return documents will improve the ease and rate of successful return of ballots. Automated interfaces and the use of barcodes will shorten the processing delay and shorten the time it takes to provide tracking information to voters.

# | 4.6. Performance Management

**4.6.1.** Performance Management Approach To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the USE Program goal and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- To manage the project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 4.4. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

#### 4.6.2. Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success		
Improve the rate of completed UOCAVA voting transactions from registration to ballot return.	At each step in the absentee voting process, the number of voters who complete each phase of the process increases. This will be measured on a per election basis, comparing previous election of that type to the current election. For example, the 2012 Primary Election will be compared with the 2008 Primary Election.		
Increase the percentage of	For each Federal Election, there is an increase in		
UOCAVA voters participating and	percentage of UOCAVA voters who participate in at least		
voting in Federal elections.	one portion of the voting process.		
Reduce the failure rates for	Based on a comparison of the average failure rates for		
UOCAVA voters experienced in	each stage in the absentee voting process with the failure		
each of the various stages of the	rates of the current election, there is a decrease in the		
absentee voting process.	failure rate in each stage.		
Provide tools and services that can benefit other jurisdictions.	The solution provided supports the legal, procedural, and technical requirements of other jurisdictions.		
Provide security measures to protect	Data collected through system audit logs, internal		
users' personal identifying	auditing, and interactions with voters does not indicate		
information and any transmitted	that any user's personal identifying information or		

election material.	sensitive election material was compromised in any way.
Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives	Reports provided through the USE Program include reliable data, complete analysis, and discerning conclusions for each of the objectives above.

#### 4.7. Risk Management

#### 4.7.1. Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- Risk identification. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis**. Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- Commence at the Project planning stage, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and

opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

- **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.
- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - The risk owner who is the person responsible for managing the response plan
  - The risk response strategy that will be used
  - The description of the mitigation or contingency plan
  - Any stakeholders impacted by the risk
  - The cost of the risk response
- **Risk Mitigation plans**: This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

#### 4.7.2. Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated against.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- e. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

#### 4.8. Current and pending project proposal submissions

Not Applicable.

Title of proposal and summary:	NA	
Source and amount of funding:	NA	
Percentage of effort devoted to each pro-	ject:	NA
Identity of prime applicant:		NA
List of subcontractors:		NA

Technical contact:

Name:	XXX
Address:	XXX
Phone:	XXX
Fax:	XXX
eMail:	XXX

Period of Performance:	XXX
Award period:	XXX
Award amount:	XXX
Man months:	XXX

Relationship (if any) with the current request:  $\boldsymbol{X}\boldsymbol{X}\boldsymbol{X}$ 

#### 4.9. Qualifications

#### 4.9.1. Introduction

To assist personnel from Arkansas, the Arkansas Secretary of State's Office has selected ES&S and Scytl to provide operational, research and technology support with their key personnel list below. Arkansas believes ES&S and Scytl have the best product and personnel to provide the services and support sought for the EASE grant execution in Arkansas.

#### 4.9.2. Key personnel

**Martha Adcock, Director of Elections-** Martha Adcock is an attorney with over 25 years experience. During her career she has handled both trial court litigation and appeals while serving as in-house counsel for a telecommunications company, enforcing environmental regulations, and working extensively with nonprofit organizations. While working with a nonprofit she served for a number of years as a reviewer of federal grant applications. Her experience working on state-wide campaigns to place issues on the ballot and working to educate voters and encourage voter participation in elections, prepared her to serve in her current position as the Director of Elections for the Arkansas Secretary of State.

**Rob Hammons, Assistant Director of Elections-** Upon graduation from the University of Mississippi in 1999 and a move to central Arkansas, Rob began a career in elections with the State Board of Election Commissioners. From 1999 until 2003 Rob acted as the Agency Program Coordinator for the State Board overseeing the training of election officials, the certification of voting systems, the compliance of polling sites statewide with the Americans with Disabilities Act, investigating elections irregularities and reviewing reimbursements to counties for state funded elections.

In October of 2002 the Help America Vote Act was passed through Congress which included new legislation and requirements for states beginning in 2006. During this time a team was assembled under the Secretary of State to oversee the implementation of those guidelines and requirements. In the summer of 2003 an invitation was given to Rob to join this team.

From July 2003 until January of 2011 Rob acted as an election coordinator overseeing and monitoring elections for 21 counties, as well as being the administrator of grants statewide for polling site accessibility grants through the US Department of Health and Human Services. During this period, Rob assisted his counties through the implementation of the new mandated voting systems, training of election administrators, and election night reporting.

In January of 2011 Rob was promoted to Assistant Director of the Elections Division by Arkansas Secretary of State Mark Martin.

**Justin Clay, Voter Registration Administrator-** As the Voter Registration Administrator, Justin plays a central role in maintaining Arkansas's uniform statewide voter registration database and is responsible for assisting local election officials to ensure compliance with the National Voter Registration Act of 1993 (NVRA) and the Help America Vote Act of 2002 (HAVA). Justin serves as a liaison between the Office of the Secretary of State, Arkansas's local election administrators, and ES&S, the voter registration software vendor. Before joining the Office of the Secretary of State in 2005, Justin received a BS in Business Administration from the University of Arkansas. As the Ethics Compliance Officer in 2006 and 2007, Justin assisted with the implementation of a new internal filing database for Candidate Contribution & Expenditure, Lobbyist, and PAC reports. Justin was also a key player in the initial implementation of online Financial Disclosure filing functionality and acted as a liaison between the Office of the Secretary of State and the Arkansas Ethics Commission. In addition to his duties as Voter Registration Administrator, Justin also assists with the design and testing for online applications, maintains the election results reporting website, and fulfills various requests from the general public.

**Fletcher Allen, Programmer Analyst** - Fletcher started in 1985 in the Computer Industry and has over 26 years experience as a programmer, team leader, project leader and supervisor. He has worked with UNIX, Linux, C, bsh, Ksh, csh, Mainframe's with COBOL and SAS, PC's with MS-DOS, Windows, Linux and SQL databases on PC's, Linux and Windows. Of the 26 years, he has 14 years of experience in Elections, starting in 1995 at the Pulaski County Election Commission.

Fletcher's current duties with the Arkansas Secretary of State Elections Division include but are not limited too maintaining the SOS Statewide Voter Registration (VR) System; interfacing with the ES&S vendor to design, test and upgrade their VR system; ensure that all aspects of the VR system are Arkansas compliant; verification process checks (daily, weekly and monthly); and ADHOC reports.

# Thomas H. Ferguson, National Sales Director, Electronic Ballot Access, Election Systems and Software

Thomas Ferguson is currently serving as the National Sales Director, Electronic Ballot Access and an Election Product Specialist for ES&S. He has approximately ten years of government management experience as the Director of Elections for the Office of the Secretary of the State of Connecticut. Prior to taking the position with the state, Mr. Ferguson served as the Registrar of Voters for the Town of Manchester, Connecticut for six years. Additionally, he is a pastpresident of the National Association of State Election Directors. During his tenure with the Secretary of the State, he was the Project Manager for the development and implementation of the Statewide, Centralized Voter Registration System. Mr. Ferguson was also the Project Manager for the development of Connecticut's browser based Campaign Finance Information System, as well as systems that house and manage the Connecticut's chief polling place officials. He has an extensive elections and project management background from his 25 years of work and experience in local and state elections.

#### Peter M Zelechoski, MBA-TM, CISSP, CISA, Election Systems & Software

Mr. Zelechoski has 9 years experience in the voting systems business sector with experience at county and state levels (US) and in international countries defining, customizing, and deploying voting systems, and operating voting systems/machines in elections. Mr. Zelechoski has experience as president, board, committee chair and committee member levels for large and small non-profit and not-for-profit groups. With 30+ years experience in computer systems, he has hands-on experience with data interchange in financial, business, and election applications

and as an architect for computer systems integration across platforms, networks, security boundaries. Mr. Zelechoski is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), a member of 1EEE P1622 Voting Systems Electronic Data Interchange standards workgroup, and a member OASIS EML task group (Election Markup Language). He has a Master of Business Administration in Technology Management.

#### Paul Miller, Business Development Manager, Scytl USA, LLC

Mr. Paul A. Miller, a former State and County Elections Official, is a highly qualified Project Manager, Elections Subject Matter Expert, and Technologist with more than 30 years'+ experience in technology and software development industries, foremost being in State and County Government Elections. He has been called upon by the EAC time and again, to provide Election Subject Matter expertise to panels, workshops, working committees, and testimony before the EAC commissioners. He was selected by the National Association of State Elections Directors (NASED) to serve as one of two NASED representatives to the Technical Guideline Development Committee (TGDC). The TGDC is a small panel of national experts tasked to work with the EAC and NIST to draft next generation voting systems standards.

Mr. Miller's election related experience has made him a nationally known subject matter expert within the elections community. Beginning with his tenure as Assistant Elections Superintendent-Data Processing in King County to Senior Technology/Policy Analyst at the Washington Secretary of State, he has gained a comprehensive knowledge of County Administrative Processes, Election Processes and Procedures, State and local Voter Registration Databases, Voting Systems, State Certification procedures, the Federal Testing and Certification Processes, Voluntary Voting System Guidelines and Federal and State Election Statutes. He has led innovative changes to county elections processes, most notably the most extensive use of its day in the nation of high-speed scanning to sort, process, and validate signatures in the absentee return ballot processes. He led the state's efforts to completely modernize its petition/signature checking processes, upgrade its voting system certification program in a high-visibility environment, and develop the state's HAVA- compliant Voter Registration System.

After being the state project manager for the 2010 implementation of U.S. Federal Voting Assistance Program's Electronic Voting System Wizard project in Washington state, Mr. Miller joined Scytl as Business Development Manager in April 2011.

#### Aaron Wilson, Project Engineer, Scytl USA, LLC

Mr. Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

#### Thad E. Hall, Ph.D. (Researcher)

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* (Princeton University Press) and *Abortion Politics in Congress: Strategic Incrementalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

#### R. Michael Alvarez, Ph.D (Researcher)

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, *New Faces, New Voices: The Hispanic Electorate in America*) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal *Political Analysis*, and co-director of the Caltech/MIT Voting Technology Project.

# State of Arkansas Budget Information Non-Construction Program

Under the USE program, BALLOT*safe* will be offered by ES&S-SCYTL as a software as a service (SaaS) model in order to facilitate its adoption and use by jurisdictions across the United States and its Territories in a cost effective manner. This model has several price components: Activation and Implementation Services Fees, Annual Right-To-Use License and Service Fees during the Research Program, and ongoing Right-To-Use License Fees and Per Ballot Processing Fees after the Research Program is completed.

For the initial Research Program, which includes the 2012 Election Cycle, the following deliverables will be provided:

Activation and Implementation Services	Software License and Services - 2012
System Activation & Initial configuration	Right-to-use license of BALLOTsafe
Definition of specifications	Election Specific System Configuration
Customization to meet specifications	Secure Primary and Backup Hosting
Installation and deployment	Help-desk / Technical Support
Integration with existing EMS	Enhancements, New Releases & Upgrades
Integration with existing VR	Account Management
Training & Documentation	
Project management	

#### Budget for the participation in the USE Research Program

The budget for the State of Arkansas to participate in the USE Research Program is \$259,000.00, as set forth in the table below. This budgetary quote includes the Activation and Implementation Services and Annual Right-To-Use License and Service Fees through the 2012 General Election Year.

Description	Fee
Activation and Implementation Services:	
Activation, Configuration, Customization, and Documentation	\$183,635.00
System Integration	\$70,000.00
Acceptance Testing	\$15,000.00
Project Management and Research Support	\$15,750.00
Training and Documentation	\$3,150.00
Total Activation and Implementation Services	\$287,535.00
<b>Software License and Services – 2012:</b> Right-to-use license of BALLOT <i>safe</i> , Secure Primary and Backup Hosting, Help Desk/Technical Support, Software Maintenance and Support for all elections through Nov 2012	\$54,590.00
Account Management and Research Data Support	\$15,375.00
Election Specific System Configuration	\$7,500.00
Total Annual License Fees and Services - 2012	\$77,465.00
Less: Discount	(\$106,000.00)
Total Fees	\$259,000.00

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#### **Ongoing Fees**

Following the initial phase of the Research Program, Ballot*Safe* is available for use and research in supporting UOCAVA voters, as well as disabled voters and absentee-by-mail voters. The ongoing Annual Software License and Service Fees will consist of a fixed price per year and a per ballot processing/duplication fee as follows.

Description	UOM	2013	2014	2015	2016
Annual Right-To-Use Software License	License	\$49,590.00	\$52,000.00	\$52,000.00	\$54,600.00
Outgoing Ballot Processing Fee	Each	\$1.00	\$1,05	\$1,05	\$1,10
Incoming Ballot Processing Fee	Each	\$0,25	\$0,26	\$0,26	\$0,27
Automatic Ballot Duplication Fee	Each	\$0,75	\$0,79	\$0,79	\$0,83

#### The above fees entitle the State to the following:

- Right-To-Use License
- Upgrades and Enhancements from Product Roadmap and Bug Fixes
- Help Desk & Troubleshooting Support
- Primary and Backup Secure Hosting
- Research Data and Support
- Account Management

Should the State of Arkansas require additional Training, Election Specific System Configuration, or other Services not included in the Ongoing Fees table above, those services will be subject to a separate charge to be agreed to by the parties.

#### **Total Fixed Fees**

The total fixed fees budget (excluding Ballot Processing/Duplication Fees) to the State of Arkansas from ES&S/Scytl for participation in the USE research program through the 2016 General Election Year is \$467,190.00

#### Return on Investment Analysis for the USE Research Program

Based on initial analysis of information gathered, Arkansas expects over a 5 year period, to see a 10% return on investment – Arkansas believes that as the system gains wider acceptance, the number of voters using the system will improve the overall ROI. The enhancements and research being provided and conducted through the UOCAVA Systems Enhancement Research Program, cost and time savings will be realized for multiple costs items associated with the absentee voting process. Overall, the easier process and technology of the USE Program will enfranchise more voters such that the number of ballots processed and registrations will increase.

• Return on Investment – postal mail of ballots

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• Return on Investment – email of ballots

To support the email of ballots, it requires a significant per-election time investment from an IT official in the office to attach PDFs and address each email. By providing electronic ballot delivery via an online website, established in a onetime development and integration effort, there will be fewer costs over time as the cost to maintain the initial expenditure is much less than the per-election cost now incurred to print and mail ballots to the UOCAVA voters.

• Return on Investment – duplication of ballots

Currently, ballots returned by voters who receive them by email must be duplicated manually. This normally takes 2 or more people at least 5 - 15 minutes to duplicate one ballot. This accounts for the time it takes to duplicate and verify correct duplication in front of witnesses. The automated ballot duplication provided by BALLOT*safe* provides an automated work flow which reduces the number of people and time it takes to duplicate a ballot. This process also reduces the errors which are introduced and expedites the accounting which must be done. This saves time and money invested in employing many permanent and temporary election workers to perform this task.

• Return on Investment – communication with voters

The online presence of BALLOT*safe* will provide UOCAVA voters the ability to retrieve jurisdiction specific communication in the form of messages, online chat, and help menus. This will reduce the amount of support required by dedicated personnel and, thereby, reduce per-election cost associated with providing assistance.

These cost and time savings will add up to a positive return on investment. Specifically, the jurisdiction will save more money over time, by reducing per-election costs, than the amount of the initial investment through the grant. The research and analysis conducting during the grant period will collect real statistics and provide a more quantitative ROI analysis based on improved data collection policies and procedures.

#### Initial Return on Investment Calculation

	2012	2013	2014	2015	2016
BUDGET - actual costing	260,166	90,334	268,476	183,686	277.337
a) Direct Labor	188,326	64,012	192,111	130,131	195,972
1. Registration process	44 301	15,524	45 192	31 205	46 100
Open mail, print email and data entry	27,123	9,131	27,668	18,630	28,225
Resolve an inquiry of a voter calling to the Election Office	16,274	5,479	16,601	11,178	16,935
Contact a voter when he/she has provided an invalid registratic mail or email	on address, 904	913	922	1,397	941
2. Ballot request process	S1 370	27,394	83,005	55 890	84.GT4
Voter requests the ballot via email or fax	16 274	5,479	16,601	11 178	16,935
Update voter record with date of request for tracking purposes	4,068	1,370	4,150	2,795	4,234
Lookup correct ballot style for voter	4,068	1,370	4,150	2,795	4,234
Locate correct ballot file for voter	4,068	1,370	4,150	2,795	4,234
Sends ballot file or location of ballot file to voter via email or fax	< 4,068	1,370	4,150	2,795	4,234
Voter requests the ballot via mail	65,096	21.916	66,404	44 712	67,739
Locate correct scannable ballot	16,274	5,479	16,601	11,178	16,935
Insert correct ballot with envelopes into mailer package	16,274	5,479	16,601	11,178	16,935
Add postage and drop mailer package in the mail	16,274	5,479	16,601	11,178	16,935
Update voter record with date of mailing for tracking purposes	16,274	5,479	16,601	11,178	16,935
<ol> <li>Ballot return process</li> </ol>	62,655	21,094	63,914	43.035	65,199
Print email ballot image to paper	8,544	2,876	8,716	5,868	8,891
Open envelopes	5,696	1,918	5,810	3,912	5,927
Check signature to authenticate voter	8,544	2,876	8,716	5,868	8,891
Update voter record with return date for tracking purposes	8,544	2,876	8,716	5,868	8,891
Locate/obtain correct scannable ballot if returned ballot is not s (i.e. returned ballot was printed on voter's printer, or returned via					
email.)	8,544	2,876	8,716	5,868	8,891
Duplicate voter choices to scannable ballot	14,240	4,794	14,526	9,781	14,818
Compare duplicated scannable ballot with original document of choices to ensure no errors made.	f voter 8,544	2,876	8,716	5,868	8,891
b) Administrative and Clerical labor	14,124	4,801	14,408	9,760	14,698
c) Fringe benefits and Indirect Costs	28.249	9,602	28,817	19,520	29,396
d) Travel			ъ.		
e) Subcontracts/sub awards			p.		-

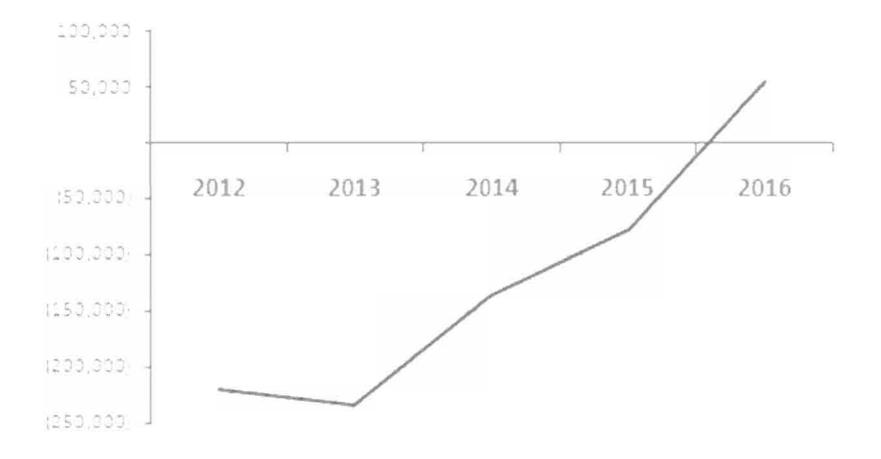
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1)	Consultants		w.	*	2	
g)	Materials and Supplies	27,340	9,665	30,748	21,739	34,582
h)	Other direct costs	2,126	2,255	2,392	2,536	2,690
BUDG	BET - new costing	480,131	104,400	170,278	125,141	145,374
3)	Direct Labor	112,995	32,006	76,844	45,546	58,792
- Ĩi	Registration process	26,581	7.762	18 077	10.922	13 830
	Ballot request process	48 822	13.697	33,202	19 562	25,402
	Ballot return process	37 593	10,547	25 566	15,062	19,560
	Print email ballot image to paper	5,126	1,438	3,486	2,054	2,667
	Open envelopes	3,418	959	2,324	1,369	1,778
	Check signature to authenticate voter	5,126	1,438	3,486	2,054	2,667
	Update voter record with return date for tracking purposes	5,126	1,438	3,486	2,054	2,667
	Locate/obtain correct scannable ballot if returned ballot is not scannable (i.e. returned ballot was printed on voter's printer, or returned via fax or email.) Duplicate voter choices to scannable ballot	5,126 8,544	1,438 2,397	3,486 5,810	2,054 3,423	2,667 4,445
	Compare duplicated scannable ballot with original document of voter choices to ensure no errors made.	5,126	1,438	3,486	2,054	2,667
D)	Administrative and Clerical labor	16,949	4,801	11,527	6,832	8,819
c)	Fringe benefits and Indirect Costs	16,949	4,801	11,527	6.832	8,819
d	Travel					
e)	Subcontracts/sub awards	•			W1	
0	Consultants	315,557	56,832	57,125	57,435	57,764
	Initial set up	259 000		-	÷	-
	Annual subscription	52 000	52,000	52 000	52,000	52,000
	Ballot processing	4,557	4,832	5 125	6.435	5 754
g)	Materials and Supplies	16,404	4,832	12,299	7,609	10,374
	Ballots	8,202	2,416	6,150	3,804	5,187
	Stamps and other mailing costs	8,202	2,416	6,150	3,804	5,187
	Other office material and supplies	-	-	-	-	-
h	Other direct costs	1,276	1,128	957	888	807
	Equipment	729	644	547	507	461
	Report and publication	547	483	410	380	346

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Cost reduction	(219,965)	(14,066)	98,198	58,545	131,963
	-85%	-16%	37%	32%	48%
Accumulated	(219,965)	(234,031)	(135,833)	(77,288)	54,675
ROI (Return on Investment ) over 5 years =	10%				

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#### THE BEXAR COUNTY ELECTRONIC ABSENTEE SYSTEMS FOR ELECTIONS (EASE) TECHNICAL PROPOSAL COVER PAGE

- 1) <u>Catalog of Federal Domestic Assistance (CFDA) Number:</u> 12,217
- 2) <u>BAA Number:</u> HQ0034-FVAP-11-BAA-0001.
- <u>Title of Proposal:</u> The Bexar County Electronic Absentee Systems for Elections (BCEASE) Project.
- 4) CAGE Code and DUNS Number: (b)(4)
- 5) Identity of applicant and complete list of contractors, and/or sub recipients: The applicant is Bexar County Commissioners Court on behalf of the Bexar County Elections Department. The BCEASE Project will be almost entirely subcontracted with funding awarded through an open, transparent, and competitive process.
- <u>Technical Contact:</u> Ms. Jacquelyn F. Callanen Elections Administrator
   203 W. Nueva San Antonio, Texas 78207 (210) 335-VOTE (8683) jcallanen@bexar.org
- Administrative/Business Contact: Ms. Jacquelyn F. Callanen Elections Administrator
   203 W. Nueva San Antonio, Texas 78207
   (210) 335-VOTE (8683)
   jcallanen@bexar.org
- Proposed Period of Performance: October 1, 2011 – September 30, 2012 (Ballot Certification Deadline for November 2012 General Election).

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#### TECHNICAL APPROACH

#### Executive Summary

Bexar County, Texas (includes the City of San Antonio) is a community of 1,714,773 individuals.<sup>1</sup> It is the fourth most populous county in Texas and the nineteenth most populous county in the United States. The city of San Antonio is now the second largest city in Texas (after Houston) and is the seventh largest city in the United States having recently surpassed San Diego, California.

Bexar County is often times referred to as "Military City, USA." This is because Bexar County is home to numerous military installations such as: Fort Sam Houston, Lackland Air Force Base, Randolph Air Force Base, Brooks Army Medical Center, and Camp Bullis. In fact, every single enlisted airman/airwoman in the Air Force is required to attend basic training at Lackland Air Force Base. The County is home to more than 195,000 Federal employees of which the largest segment is active-duty military personnel.<sup>2</sup>

The military community in Bexar County votes. In the gubernatorial general election of November 2010, there were approximately 7,500 Uniform and Oversees Citizen Absentee Voter Act (UOCAVA) voters who submitted their ballots from abroad. In the presidential general election of November 2008, there were nearly 17,900 UOCAVA voters. Of the more than 3,000 counties and parishes across the United States, Bexar County has the fifth largest number of UOCAVA voters being surpassed only by Los Angeles County (California); Harris County (Texas); San Diego County (California); and King County (Washington State).

The Bexar County Electronic Absentee Systems for Elections (BCEASE) Program is our community's attempt to improve the processes by which UOCAVA voters vote. The goals and objectives of the BCEASE Program are to: 1) Establish and operate a successful, sustainable, and affordable electronic system for voting by UOCAVA voters; 2) Increase the percentage of ballots that are successfully returned by UOCAVA voters; 3) Improve the convenience of voting; 4) Reduce the failure rates for UOCAVA voters experienced in each stage of the absentee voting process; 5) Provide the Department of Defense a model and infrastructure of UOCAVA voting that can be replicated regionally and nationally; and, 6) Ensure security measures are instituted to protect users' personal identifying information and any transmitted election material.

Bexar County requests \$474,327 in order to subcontract with a service provider to develop and implement a user-friendly system of absentee voting for overseas citizens of Bexar County. As part of this proposal, we also ask for funding to hire a local systems programmer who is answerable to the Bexar County Elections Administrator and who can work with the subcontractor of services. Finally, we ask for travel and training funding that is mandatory to the solicitation and some ancillary funding for day-to-day office supplies.

<sup>&</sup>lt;sup>1</sup> U.S. Census Bureau (2010).

<sup>&</sup>lt;sup>2</sup> Bexar County Department of Economic Development (2011).

#### Goals and Objectives

The goals and objectives of the BCEASE Program are six fold:

- Establish and operate a successful, sustainable, and affordable electronic system for voting by Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) voters;
- Increase the percentage of ballots that are successfully returned by UOCAVA voters;
- Improve the convenience of voting;
- Reduce the failure rates of UOCAVA voters experienced in each stage of the absentee voting process (such as voter registration, absentee ballot request, blank absentee ballot delivery, absentee ballot marking, absentee ballot tabulation, and absentee ballot return verification) specific to Bexar County; and,
- Provide the Department of Defense a model and infrastructure of UOCAVA voting that can be replicated regionally and nationally.
- Ensure security measures are instituted to protect users' personal identifying information and any transmitted election material.

The BCEASE Program will be very user-friendly from the UOCAVA voter's point of view. All that is required by the voter is access to the internet and a mailbox. The voter can access either the Bexar County Elections Department or the Federal Voting Assistance Program (FVAP) website (<u>www.fvap.gov/</u>). Once at the FVAP website, the voter can do everything from register to vote; request a sample ballot; download a ballot; and/or track a ballot. Once the ballot is completed and printed, the ballot can be mailed and tracked with a bar code unique to the voter.

The vast majority of the development and implementation of the BCEASE Program will be conducted by a subcontractor to the Bexar County Elections Department. The requested service will address each of the eight evaluation criteria outlined by the solicitation in descending order of importance. The features of the procured system and its benefits are outlined as the following:

Criteria	Feature of System	Benefits of the Feature
Significance	<ul> <li>The system will be user- friendly and web-based.</li> <li>It will allow for an integration of voter registration databases with actual ballot downloading and submission.</li> <li>It will include a data source generation to ensure consistency across the various ballot styles.</li> </ul>	<ul> <li>There will be online access to voter help, information, and resources.</li> <li>There will be instant online registration.</li> <li>Voters will be assured of success through an electronic ballot marking process.</li> <li>Human error will be reduced.</li> </ul>

Criteria	Feature of System	Benefits of the Feature
Sustainability	<ul> <li>The system will be "cloud" based and hosted.</li> <li>It will have low annual fees and maintenance costs.</li> </ul>	<ul> <li>The cost of use is reduced over time because Bexar County will not incur the long term cost of the cloud.</li> <li>Other funding sources can potentially be used in the future.</li> </ul>
Impact	<ul> <li>It will be a user-friendly and accessible ballot.</li> <li>It will have a marking tool that is web-based.</li> </ul>	<ul> <li>The system will improve accessibility and UOCAVA participation rates.</li> <li>Confidence in the integrity of the system will be improved for the UOCAVA voter.</li> </ul>
Strategic Approach	<ul> <li>Ballots will be made available as early as possible. Reporting tools will be built into the system.</li> </ul>	<ul> <li>The system will improve UOCAVA participation rates.</li> <li>Benchmarks will be set.</li> </ul>
Innovation	<ul> <li>The system will be "cloud" based.</li> </ul>	<ul> <li>Ballot errors will be reduced.</li> <li>Access for disabled voters will be improved.</li> <li>Voters can use their personal email accounts instead of their military/work email account.</li> </ul>
Scalability	<ul> <li>All eligible OUCAVA voters will have access to the program.</li> </ul>	Accommodates more ballots     cast as participation grows.
Collaborative	<ul> <li>The various jurisdictions within the County will benefit.</li> <li>Neighboring counties can make site visits and participate in technical assistance conferences hosted by Bexar County.</li> </ul>	<ul> <li>Bexar County will share lessons learned and assist neighboring counties to improve processes.</li> </ul>
Cost Benefit Analysis	• Licensing will be for at least five years.	<ul> <li>Budget certainty is guaranteed for five years.</li> </ul>

The procured system will also offer two sets of functionality: one for the Bexar County Elections Department and one for the UOCAVA voter.

For the Elections Department:

• There will be a "back office" website. It will be a secure portal for election and voter management as well as a tool for generating reports and statistics. The service provider will train the Elections Department on how to maneuver through this portal.

- Ballots will be created electronically.
- A voter management module will allow the Elections Department to synchronize the list of eligible voters with the list of maintained registered voters.

For the UOCAVA voter:

- There will be on-screen marking capabilities which ensure that voter error is reduced.
- There will be a bar code on absentee ballot envelopes.
- Voter fraud will be reduced by authenticating email addresses and unique serial numbers.
- A "news feed" will provide UOCAVA voters with information on an as needed basis.
- A ballot return tracking system that allows the UOCAVA voter to track the status of the mailed ballot.
- There will be a "concierge desk" for voters for purposes of troubleshooting unforeseen issues in voting along with a "Frequently Asked Questions" (FAQ) hyperlink.
- Sample ballots will be made available on-line.

#### Current Versus Proposed Failure Rates:

Overseas voters have a much harder time casting ballots successfully than those individuals who reside in the community and are usually walking distance from their polling location. During the last Gubernatorial election (November, 2010), for example, there were 7,805 Federal Post Card Applications (FPCAs) requested. All were mailed. However, 2,556 (32.7%) were sent to an address that was "undeliverable" for Bexar County residents compared with only 19.8% for overseas voters statewide. Only 2,593 (33.2%) of the overseas Bexar County ballots were actually returned successfully.

The BCEASE has the potential to double the number of ballots that are successfully returned and cast. Instead of using "snail mail" to deliver ballots overseas and having 32.7% be returned to the sender, those 32.7% of voters simply have to log onto their nearest computer and download the ballot off the internet.

The BCEASE Program also has the potential to expedite the process of requesting a ballot. Currently, overseas voters receive a hard copy ballot in the mail. This process can sometimes take up to two weeks. Under the BCEASE Program, the ballot can be sent to the overseas voter electronically thereby reducing the time it takes to get to the voter.

#### Security Measures to Protect Ballot Integrity:

The BCEASE will include a feature that allows for ballots to be marked electronically prior to being printed. This will allow for voter intent to be very clear from the Elections Department point of view and will prevent issues analogous to "hanging chads."

Moreover, there will be safeguards to ensure "one person, one vote." Specifically, each voter's ballot will have a unique serial number/bar code that is not only electronic, but on the printed ballot itself.

### Schedule and Milestones:

Key Activity (What?)	Timeframe (When?)	Responsible Party (Who?)	Progress Report
Grant Award.	Month 0.	Department of Defense (DoD)	Quarterly Reports
Hire Systems Programmer.	Month 1	Ms. Jacquelyn Callanen, Bexar County Elections Administrator	n/a.
Post Request for Proposal (RFP) for Subcontractor of UOCAVA System.	Month 1	Mr. Daniel Garza, Bexar County Purchasing Department	n/a.
Award UOCAVA System Subcontract.	Month 2	Mr. Daniel Garza, Bexar County Purchasing Department	n/a.
<ul> <li>Strategic Planning Orientation</li> <li>Kickoff Meeting.</li> <li>Job Specification. Implementation Plan and Timetable.</li> </ul>	Month 2.5 – 3.5	Ms. Jacquelyn Callanen, Bexar County Elections Administrator	Report to DoD on 2/1/12.
<ul> <li>Build the System</li> <li>Bexar County Delivers <ul> <li>Ballot Data.</li> <li>Bexar County Delivers</li> <li>Voter Registration Data.</li> </ul> </li> <li>Draft Election Built. <ul> <li>Draft Voter Registration</li> <li>Credentials Loaded.</li> <li>Test the System.</li> </ul> </li> </ul>	Month 3.5 – 4	Subcontractor	Report to DoD on 2/15/12.
Primary Election Timetable (including runoff).	Month 4 – 6	Ms. Jacquelyn Callanen, Bexar County Elections Administrator	Report to DoD on 4/15/12.
General Election Timetable.	Month 12 – 14	Ms. Jacquelyn Callanen, Bexar County Elections Administrator	Report to DoD on 12/15/12.
Final Report to DoD.	Month 15.5	Ms. Jacquelyn Callanen, Bexar County Elections Administrator	Report to DoD on 1/15/13.
Post Election Support.	Month 15.5 – 75.5	Subcontractor	

#### **Reports**

The prospective vendor will be asked to comply with a schedule of reports that is determined by the Department of Defense (DoD). These reports will be submitted to the Bexar County Elections Department and will be submitted by the Elections Department to the DoD. The reports will be based on milestones, reduction in failure rates of UOCAVA voters in the various stages of the absentee voting process, and other relevant data. These reports will be of four major types:

Type of Report	Timeframe
Programmatic and Financial Progress Reports.	Quarterly.
Data Collection Points Reports.	Post Primary Election and
Number of UOCAVA Visitors to the Website.	General Election.
<ul> <li>Number of Ballots Downloaded.</li> </ul>	
Delivery Method Requested/Downloaded.	
Final Report	Post Grant Period.
Significance.	
Sustainability.	
Impact.	
Strategic Approach.	
Innovation.	
Scalability.	
Collaboration.	
Cost/Benefit.	
Standard Reports that are currently sent to the U.S. Elections	Post Primary Election and
Assistance Commission and the Texas Secretary of State.	General Election.

#### MANAGEMENT APPROACH

The Bexar County Elections Department will be the administrative and programmatic leader and agent of this proposal. The Elections Department offers a comprehensive mix of professionals, processes, and infrastructure to make the BCEASE proposal a success.

The Elections Department is led by Ms. Jacquelyn F. Callanen (see attached resume). Ms. Callanen has over thirty years serving the elections infrastructure of Bexar County. She has served as an Elections Judge; a Ballot Operations Coordinator; and Elections Manager. She has spent the last six years as Bexar County's Elections Administrator and has presided over elections in which the returns were tabulated in record time as well as record-breaking turnout.

Bexar County has more than two dozen incorporated communities; twenty school districts; a community college district; various justice-of-the-peace precincts; and other jurisdictions which involve elected officials. In fact, Bexar County is required to have up to 350 different ballot styles given the various permutations of who represents whom in the community.

Ms. Callanen will hire one Systems Programmer answerable to her. This individual will serve as the lead individual assigned to the subcontractor/service provider responsible for implementing the BCEASE Program. Ms. Callanen – with the assistance of the Bexar County Purchasing Department – will subcontract the vast majority of funding from this proposal to a service provider through an open, transparent and competitive process. Examples of service providers include, but are not limited to: Democracy Live; ES&S and Scytl; and Everyone Counts.

The Request for Proposal (RFP) will:

- Define and formalize the strategic goals of the BCEASE Program;
- Identify performance indicators; and,
- Justify why the existing process has to be modified.

The Request for Proposal will also require that the subcontractor accomplish the following:

- Analyze and measure the current processes;
- Identify potential risks to voter integrity of the current system and offer mitigating strategies; and,
- Project the effectiveness of the modifications.

#### CURRENT AND PENDING PROJECT PROPOSAL SUBMISSIONS

The Bexar County Elections Department is currently a recipient of the Helping Americans Vote Act (HAVA) grant award.

Grant Title: General HAVA Title III Compliance

Purpose Area: General HAVA Compliance

Funding Source: Title 11, Section 251

Maximum Grant Amount: \$9,060,612.69

Awarding Agencies: U.S. Election Commission/Texas Secretary of State

Percentage of Funding by Awarding Agencies: 95% Federal/5% State

CFDA Number: 90.401

Authority: The availability of funds is authorized by Title II, Section 251 of the Help America Vote Act (HAVA), Public Law 107-252, October 29, 2002; 42 U.S.C. 15301

**Use of Funds:** Reimbursement of costs for the following purposes: Voter education; Election worker education; upgrading voting systems (compliance with new Federal standards); and acquiring an accessible voting system in each polling location.

**Grant Period:** November 8, 2000 – December 31, 2010 for HAVA compliance voting equipment and ongoing operation costs maintenance, licensing, storage, etc. and September 1, 2004 – December 31, 2011 for voter and election worker education.

Technical Contact:	Ms. Jacquelyn F. Callanen
	Elections Administrator
	203 W. Nueva
	San Antonio, Texas 78207
	(210) 335-VOTE (8683)
	jcallanen@bexar.org

List of Subcontractors: ES & S.

#### QUALIFICATIONS

Ms. Jacquelyn F. Callanen is the Bexar County Elections Administrator and will serve as the programmatic and operational leader of the BCEASE Program. Ms. Callanen's resume follows.

Senior election official for 20th largest county in the nation. Experience incorporates strategic planning, substantial budget, human resources, and project management. Excellent decision-making and critical resource management skills in high visibility, time-sensitive, high impact operations. Thirty years election experience. Certified Elections and Voter Registration Administrator (CERA). Proven diplomacy and issue resolution skills.

# EXPERIENCE

### ELECTIONS ADMINISTRATOR

Elected by the Elections Commission as Administrator for the 24<sup>th</sup> largest county in the US by a unanimous vote on September 9, 2005.

BEXAR COUNTY, TEXAS

- Responsible for all elections held in Bexar County
- Held the first election that had a 100% turnout.
- Held 5 major elections in Bexar County
- Recognized by Commissioners Court for having the earliest returns in an election held in Bexar County.
- Facilitated the bi-annual mailing of 886,00 voter registration cards
- Accomplished the federally ordered redistricting for the Congressional Districts and mailed 177,000 corrected copies of voter registration cards
- Responsible for Outreach programs in Bexar County

### ELECTIONS MANAGER

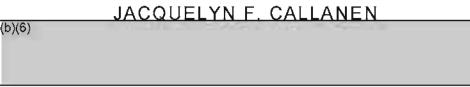
- Responsible for planning all aspects of elections, which include the logistics. coordination and performance of 2100 elections personnel.
- Key decision-maker in negotiations for new voting system for multi-cultural electorate.
  - Assisted in the development of training materials for over 1400 election judges and technical support personnel

BEXAR COUNTY, TEXAS

- Directed and assisted in the implementation of the new voting system for 850,000 registered voters of Bexar County.
- Directed and assisted in the Outreach Program for the electorate of Bexar County in the use of the new iVotronic voting system
- o Assisted in the design and production of the delivery system of the new voting system
- Directed over 145 county and contract elections operations for 24<sup>th</sup> largest county in the US, including the 8<sup>th</sup> largest city in the US – 856,000 registered voters, 23 political subdivisions.
- Responsible for the Programming and Proofing of all elections conducted in Bexar County.
- Responsible for the tallying and reporting of all election results.
- Responsible for developing all contracts for the conduct of elections in Bexar County which include \$3 million in annual costs.
- Coordinate with Commissioners Court and the Auditors for the successful management of over \$9.1 million in HAVA funds.

2001-2005

2005-Present



- Responsible for the implementation of the IVR telephone system, which handled 20,000 phone calls for the November 2004 Election and all subsequent elections.
- Managed first Joint Republican and Democratic Primary in county history.
- Coordinate with various Bexar County Departments for the timely procurement and delivery of all supplies necessary for the conduct of all elections.
- Advisor to political parties, office holders, candidates and consultants for election services.

# BALLOT OPERATIONS

#### BEXAR COUNTY, TEXAS

1996 - 2001

#### COORDINATOR

- Coordinate with all entities for the preparation of ballots for all elections.
- Developed process for the production and proofing of ballot styles for all elections.
- Coordinate with Ballot Printers for the timely delivery of ballots.
- Develop, implement and supervise a system for the accurate distribution of all ballots to the presiding judges for the conduct of elections.
- Develop, implement and supervise a system for the retrieval and tabulation of all ballots for accurate results.
- Prepare all sample ballots.

Responsible for developing all contracts for the conduct of elections in Bexar County.

#### ADMINISTRATIVE CITY CLERK'S OFFICE 1990 - 1991ASSISTANT CITY OF SAN ANTONIO

 Coordinated all election activities necessary for the conduct of the City of San Antonio General Election and Runoff Election.

BEXAR COUNTY, TEXAS

 Created the San Antonio elections personnel database to manage all election activities as well as payroll for the 1600 employees.

#### ELECTION JUDGE

- Election Day Presiding Judge
- Deputy Early Voting Clerk
- Temporary Election Clerk for the by mail process
- Training of election judges

#### TEACHER

1967-1983

1981-1996

- Northside Independent School District, San Antonio, Texas o Third Grade - Timberwilde Elementary
- Blessed Sacrament Elementary, El Paso, Texas
  - o Third Grade

## EDUCATION

- Mount Mercy College
- Certified Elections and Voter Registration Administrator (CERA), Auburn University & The Elections Center, 2002

## ASSOCIATIONS & ACTIVITIES

- Pew Charitable Trust Voting in America Member
- EAC Advisor to Quick Start for Uniformed and Overseas Voters, March 2008
- Committee on a Military Services and Overseas Civilian Absentees Voters Act
- Elections Center Research Project
- Voting Project Initiative Microsoft, Facebook, Twitter
- Texas Association of Elections Administrators Vice President 2010-2011
- Texas Secretary of State Seminar Speaker
- Pilot for Texas Secretary of State Initiative on emailing of ballot to Military 2008 2010
- ES&S National Advisory Board
- Great Northwest Homeowners Association Board Member and Secretary
- Northside Independent School District Bond Committee
- Northside Independent School District PTA
- Bexar County Bond Committee New Jail Proposal
- San Antonio 2000
- CCD Instructor Our Lady of Guadalupe

### REFERENCES

(b)(6)

#### BUDGET PROPOSAL

#### OBJECT CLASS CATEGORIES (BASED ON AN 12 MONTH PERIOD)

	TOTAL
A. Direct Labor:	
n/a	\$0
SUBTOTAL	\$0
B. Administrative and Clerical Labor:	
n/a	\$0
SUBTOTAL	\$0
C. Fringe Benefits and Indirect Costs:	
n/a	\$0
SUBTOTAL	\$0
SUDIVIAL	30
D. Travel:	
Airfare (\$800/roundtrip x 2 trips x 2 individuals).	\$3,200
Lodging ( $225/night \times 3 nights \times 2 trips \times 2 individuals)$ .	\$2,700
Per Diem (\$65/day x 4 days x 2 trips x 2 individuals).	\$1,040
Airport Parking (\$18/day x 4 days x 2 trips x 2 individuals).	\$288
Ground Transportation (\$80/roundtrip x 2 trips).	\$160
SUBTOTAL	\$7,388
SCHOINE	
E. Subcontracts/Subawards:	
One-Time Countywide Set Up Fee (includes hosting and deployment, 40	\$200,000
hour on-site training, and project management).	
License Subscription and Support/Maintenance	\$50,000
Downloaded Ballots and Processing (\$1/ballot)	\$100,000
E S & S Ballot Royalty (\$0.35/ballot)	\$35,000
SUBTOTAL	\$385,000
E. Consultants	
<u>F. Consultants:</u> Systems Programmer	\$68,139
SUBTOTAL	\$68,139
500+01111	400,109
G. Materials and Supplies:	
Day-to-Day Office Supplies (\$400/month).	\$4,800
SUBTOTAL	\$4,800
H. Other Direct Costs:	
Okidata C711 Printer	\$9,000
SUBTOTAL	\$9,000

I. Total Direct Charges (sum of A through H):	
	\$474,327
SUBTOTAL	\$474,327
J. Indirect Charges:	
n/a	\$0
SUBTOTAL	\$0
K. TOTALS (sum of A through J):	\$474,327

Budget Narrative:

- A. Direct Labor: n/a.
- B. Administrative and Clerical Labor: n/a.
- C. Fringe Benefits and Indirect Costs: n/a.
- D. Travel: Bexar County would like to fund two trips for two individuals to attend two separate training and technical assistance conferences in Washington DC. Airfare is budgeted at \$800/roundtrip per person; lodging is budgeted at \$225/night for three nights per person per trip; per diem is budgeted at \$65/day for four days per person per trip; airport parking is budgeted at \$18/day for four days per person per trip; and ground transportation is budgeted at \$80/trip.
- E. Subcontracts/Subawards: The vast majority of funding from this proposal will be subcontracted to a service provider who can assist Bexar County with the development and implementation of this proposal. Funding requested is itemized as: 1) \$200,000 for one-time countywide set up fee (includes hosting and deployment, 40 hour on-site training, and project management); 2) \$50,000 for a five year license subscription and support maintenance; 3) \$100,000 for the five year projection of UOCAVA absentee ballots at \$1/ballot; and, 4) \$0.35/ballot royalty to the current HAVA contractor: ES &S.

While items 2, 3, and 4 are five year expenditures, the contracts for each expenditure will be made in year one for the entire amount with expenditures paid out as invoices to Bexar County are submitted.

- F. Consultants: Bexar County would like to hire one on-site Systems Programmer for the first 12 months of the grant period. This individual will not be an employee of Bexar County but will be contracted employee. Funding for this position is budgeted at the Bexar County Exempt Pay Table grade of E-8. Funding is budgeted at \$49,500 in salary and 10.72% retirement; 7.65% in Social Security and Medicare; 0.245% in life insurance; 0.15% in unemployment insurance; \$9,000/year in health insurance; and \$350/year in workers compensation. The total for this line item is \$68,139.
- G. Materials and Supplies: Day-to-day office supplies are budgeted at \$400/month.
- H. Other Direct Costs: An Okidata C711 printer/scanner will be required for the BCEASE Program in order to print and scan ballot requests and ballots for UOCAVA voters.
- I. Total Direct Charges (sum of A through H): \$474,327.
- J. Indirect Charges: n/a.
- K. Totals (sum of A through J): \$474,327.

# i. TECHNICAL PROPOSAL COVER PAGE

TITLE: EASE Project: Research and Development of Sustainable, Open Source, Multi-Platform Applications for use by election officials to improve outreach, services, communication, and ballot delivery to UOCAVA voters

BAA NUMBER: BAA H98210-BAA-11-0001

APPLICANT CAGE CODE: (b)(4)

APPLICANT DUNS: (b)(4)

APPLICANT:

#### WENDY S. NOREN BOONE COUNTY CLERK COUNTY OF BOONE, MISSOURI

KNOWN CONTRACTORS/SUB-RECIPIENTS

#### UNIVERSITY OF MISSOURI - COLUMBIA OFFICE OF SECRETARY OF STATE - STATE OF MISSOURI

#### TECHNICAL CONTACT:

Wendy S. Noren Boone County Clerk 801 E. Walnut Rm 236 Columbia, Mo 65201 Phone: 573-886-4295 Fax: 573-886-4300 EMAIL: wsnoren@gmail.com and wnoren@boonecountymo.org

#### ADMINISTRATIVE/BUSINESS CONTACT

Wendy S. Noren Boone County Clerk 801 E. Walnut Rm 236 Columbia, Mo 65201 Phone: 573-886-4295 Fax: 573-886-4300 EMAIL: wsnoren@gmail.com and wnoren@boonecountymo.org

#### PROPOSED PERIOD OF PERFORMANCE

8/01/2011 through 12/31/2012 for (system maintenance continued through November 2018)

# ii. TABLE OF CONTENTS

# Technical Approach and Justification:

Executive Summary
Goals and Objectives
Develop tools for online and electronic communication tools
How the Goals meet the Evaluation Criteria
Significance
Sustainability of Products
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Impact
Strategic Approach
Innovation
Scalability
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Cost Benefit Analysis
Security
Schedule and Milestones
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Management Approach
Current and Pending Project Submissions
Qualification of Key Personnel

# iii. TECHNICAL APPROACH AND JUSTIFICATION EXECUTIVE SUMMARY

Boone County Clerk Wendy Noren will lead a team of state, local and university experts who will:

- Research and develop UOCAVA outreach and education programs through non-traditional sources, emerging technology and modern data mining techniques to connect UOCAVA voters to their Local Election Authority (LEA);

- design online FPCA system designed to serve UOCAVA voters, reduce local election authority workload, increase data integrity and improve UOCAVA voter knowledge of and access to alternate ballot delivery availability;

- Research, design and develop online or other ballot delivery methods for all Missouri jurisdictions that will increase the probability that a UOCAVA voter will be able to receive, vote, cast and have counted their ballot;

-Research and potential development of online ballot delivery system that would be open to states and jurisdictions outside Missouri – subject to University capacity limits;

- Research and develop alternative processes for low cost processing of paper ballots returned by mail to improve accuracy and reduce LEA workload;

-Design systems with end goal of providing a low maintenance system for perpetual use by states and local governments;

- Provide research and produce mobile apps that can be used to help UOCAVA voters connect the LEA;

These systems serve to extend and expand the initial research and development done by Boone County to communicate to UOCAVA voters new opportunities for ballot deliver, provide web based access to request electronically delivered ballots and participation in 2010 Electronic Voting Support Wizard through the FVAP.

This grant will incorporate lessons learned from the design/development program to provide expanded ballot delivery systems and communication tools for both UOCAVA voters and LEA's in Missouri.

The primary deliverable under this grant will be an online application and ballot delivery system that is designed to provide synergy with current LEA process and improve data accuracy.

The University of Missouri and the Boone County Clerk will also research and develop ways to utilize technology concepts standard in commercial operations but unknown and currently unavailable election official to indentify and link UOCAVA voters with their LEA. The research will look into how to leverage available "big data" to develop tools to assist UOCAV voters.

The open source applications developed by the University will provided to all Missouri jurisdictions through 2018. The systems will be designed with the end goal of providing either perpetual use through migration to state or local hosting sites or development of a cost fee for service system affordable by even the smallest jurisdiction in the state. In addition, applications will be made available at no cost to state and local jurisdictions outside Missouri that have the ability to implement independent of the University of Missouri.

# iii. TECHNICAL APPROACH AND JUSTIFICATION

#### Goals and Objectives:

#### A. Develop deliverables for online and electronic communication tools:

The primary deliverable under this grant will be the development of online and other electronic applications that can be used by UOCAVA voters and LEAs to process registration and absentee applications; provide delivery of electronic format ballots, keep the UOCAVA voter informed on ballot status and improve tracking and reporting capabilities. The Boone County Clerk will coordinate the research and design of these applications with University of Missouri College of Engineering Computer Science Department, the Secretary of State through their state voter registration database vendor and local election authorities in Missouri. The design and development will build on previously designed applications used in Boone County for the implementation of MOVE to incorporate them into the state election management system as well as enhance and expand them to local jurisdictions statewide.

Missouri jurisdictions other than Boone County are reliant on the state voter registration database for absentee and election management processing. These functionality of this system can be enhanced to improve services available to voters under MOVE.

The Missouri rate for utilization of electronic delivery in the 2010 election was dismally low (approximately 1%) except in Boone County where more than <u>90% of the UOCAVA voters</u> eligible for electronic delivery requested and received their ballot through automated ballot delivery systems. This utilization rate was so low because of the following identifiable barriers:

- UOCAVA voters were not aware of the availability of this service
- Election Authorities had no incentive to encourage the use of electronic ballot delivery because the process available was significantly more burdensome than mailing a ballot.

Through the expansion of programs developed in Boone County statewide these barriers can be significantly reduce through systems that:

- communicate availability of electronic delivery of ballots to UOCAVA voters early
- develop online registration and absentee application systems that allow UOCAVA voters easy access to entering and where necessary printing appropriate applications
- to reduce LEA data entry workload and error rate provide for collection of the application data entered by the UOCAVA voter for delivery to LEA in a format that can be merged electronically to the voter registration database after the application is received and approved by the LEA
- eliminate duplication of effort currently needed to manage voter database, ballot counting systems and a new layer of electronic ballot delivery through the development of a consolidated ballot layout and coding system utilized for all systems
- maintain an automated communication flow to the voter of the status of the application so the voter does not have to go to a website to determine status;
- research the effectiveness of various alternative methods to capture voted ballot data submitted by mail and incorporate it electronically to ballot counting systems;

- develop systems to assist in the reporting requirements for LEA's
- research and develop tools that assist in the prevention of fraudulent use of technology used to provide services to UOCAVA voters
- develop all applications with the knowledge that over the next few years more people will be communicating and processing transactions through mobile smartphone technology rather than traditional computers;
- identify and develop mobile applications that can enhance the democracy experience of UOCAVA voters
- identify and develop sources for partnerships in getting these applications to UOCAVA voters (i.e. National Guard agencies for inclusion in materials provided to members being sent overseas, college registrars for students going abroad etc.)

# B. How the Goals meet evaluation criteria:

<u>Significance –</u> The significant variation between the rates of electronic delivery in Boone County versus the balance of the state demonstrates that these tools have potential to dramatically increase utilization of electronic ballot delivery. The Boone County experiments indicate that comprehensive programs that increase UOCAVA voter access and reduce LE costs can have a significant impact on usage rates of ballot delivery systems. By developing an open source system designed to be transferable to many jurisdictions across the country these grant funds can dramatically enhance the ability of any UOCAVA voter to have their ballot cast and counted in a timely fashion.

By researching how modern technology tools are used commercially to identify and provide services a specified customer base we can expand the knowledge base of potential services available to voters. Utilizing modern data mining techniques (with privacy by design concepts) could change the tools available to identify, track and serve UOCAVA voters. The technology exists today but no one has researched and developed tools to bring those concepts and technology to the voter service area. As an example, when I book a flight to XYZ I get email from rental car companies asking if I want to rent are car. This grant will research how that technology might be translated to our business function of serving voters. Other research area can be how we might utilize smart phone technology to identify and connect UOCAVA voters with the correct LEA.

The capacity to do this type of research identify cost effectiveness of application development is not available to the current vendor base serving the election community. Research on this scale can best be filtered and tested through a major research institution, such as the University of Missouri, that has the mission and technical skill set to develop a multi-disciplinary approach to the problems faced by UOCAVA voters and election officials.

#### Sustainability of product deliverables

The design and implementation of this system will be focused on the primary areas critical to sustainability of the product:

- The system must reduce increase the probability that a UOCAVA voter has the correct ballot in time to have it cast and counted;
- The system needs to decrease the workload andcosts for local election officials
- There is a long term commitment on the part of the University of Missouri to insure the end product will be available after 2018 for a low fee for service rate that is affordable to

any Missouri jurisdiction. We believe the model by then could be in the range of \$100 per election set up and 2.00 to 3.00 per ballot transmitted. This price range will keep LEA's utilizing a system because the cost of transmitting ballots through this system will be less than processing them by mail;

- There is a commitment on the part of the University of Missouri to allow migration of all applications at no charge to a state or local host site for ongoing use;
- The system must duplicate and enhance due diligence efforts currently used by LEAs to prevent fraudulent use of the UOCAVA process;
- The system must provide UOCAVA voters with easy access to the processes necessary for casting a ballot and utilize technology to enhance the experience for disabled voters;
- The system must provide confidence to UOCAVA voters that their voter data is used appropriately and only for processing ballots;
- The system must provide the UOCAVA voters the ability to use the technology available to them i.e. mobile phones, to easily process their requests, and communicate with their LEA through the development of downloadable applications from app stores;

These concepts will guide the development of all applications identified as deliverables to extend the useful life of any product developed.

#### Sustainability of Research Components:

The research on voter outreach through use of technology will identify costs associated with and how we leverage scarce funds to maximize our access to tools that connect us with UOCAVA voters.

It is highly unlikely that any local jurisdiction would be able to subscribed to and maintain the kind of data mining structures that will be explored but properly through research and building partnerships there may be components of this grant that will identify systems that could be appropriate at the state level.

Voter outreach applications will, like the other applications developed under this grant, continue to be available to Missouri local and state election officials.

#### **Impact**

Missouri currently processes approximately 16,000 UOCAVA ballots in a Presidential Election and up to 10,000 in an off year General Election. There is minor participation in primary elections. The Boone County numbers indicate that given easy access to choosing electronic ballot delivery, 90% of the UOCAVA voters will choose that option. Current usage in other Missouri jurisdictions was approximately 1%. Implementation of these proposals statewide can result in dramatic increase in services envisioned under MOVE.

In the 2008 Presidential Election 17% of UOCAVA voters whose applications were processed did not have a ballot counted. Primary reasons include the ballot was received too late, it was returned undeliverable, the status was unknown (indicating it was received by the voter too late or lost in mail). An additional 5% of the UOCAVA voters had a ballot counted from the FWAB submitted which indicates the regular ballot was not received in time to be returned and counted.

Approximately 100 ballots that were received timely were rejected because of failure sign or complete the appropriate affidavits. Primary elections present an additional set of errors when voters do not request a party ballot (required by state law)

Implementation of these proposals will reduce the error rates of ballot delivery, return and affidavit processing through the use of online application, ballot delivery and affidavit generation procedures that validate information, reduce data entry errors, and are evaluated for usability to reduce voter confusion.

Design of this system will also be evaluated to possibly allow other states and local jurisdictions to utilize the tools developed as capacity permits. Due to the open source nature of the products developed potential impact is nationwide adoption of common software.

# Strategic Approach

The primary deliverables under this will be based on prototype systems that were in place in Boone County and utilized in 2010. Boone County had versions of web based application processing and automated notifications of applications/ballot in place for several election cycles. Electronic ballot delivery through automated email system was developed and implemented in 2010. In addition an online ballot marking was designed to specifications developed in Boone County and provided to Boone County voters through the 2010 FVAP Electronic Voting Support Wizard (EVSW).

The Boone County experience demonstrates that the deliverables for electronic application, ballot delivery and ballot status notification increases UOCAVA service levels and reduced workload in processing applications, ballot delivery and responding to voter queries. In addition the Boone County Clerk will research and design best method for processing returned paper ballots and incorporating them into the ballot counting systems currently in use in Missouri.

This grant will be utilized to analyze how best to incorporate these successful design elements into the software used by the other 115 local jurisdictions in Missouri as well as develop new applications that will set up the online ballot delivery system. The online ballot delivery system will contain many of the elements that were designed by Boone County for the EASE project but will be modified to address issues not adequately covered during the short time frame of that grant:

- Usability testing of design elements as well as interface with assistive technology devices;
- Security issues related to downloadable ballots
- Conversion of voted paper ballots returned to LEA to format that allows producing machine counted results
- Utilization of ballots by UOCAVA voters who have disabilities

The University of Missouri will provide expert cyber security support throughout the design and maintenance to insure ballot integrity and will provide facilities and personnel for usability testing throughout the project. Additional consultant work is included in the budget to have usability consultations from expert(s) who have specific research and testing experience with ballots and where necessary "privacy by design" expert review.

The State of Missouri will provide under contract the modifications to the state voter database that will be required to import and export data elements necessary to accomplish full electronic process of application and online ballot delivery.

The University of Missouri will develop mobile applications that enhance the UOCAVA voter's ability to access the tools developed under this grant and process their applications and ballots. This will be enhanced by the military initiative to place a Smartphone device in the hands of all personnel. As more people move to these systems and away from traditional web/internet pages this will be critical need;

The Boone County Clerk, in conjunction with the University, will identify and recruit key government, industry, political, not-for-profits, commercial, university and journalists to research and identify best methods for:

- identifying the customer base and strategies to provide content to them through innovative search engine, social media, data mining that successfully used in other industries but are not available to election officials;
- development of partnerships for putting the tools in the hands of the UOCAVA voters

# Innovation:

- No current open source applications exist for use by election official in the areas we have identified as deliverables;
- No current affordable fee for service ballot delivery system exists that would provide for perpetual sustainability of the concepts outlined in the grant notice;
- The grant will fund research into alternative ways to process returned paper ballots to determine the most cost effective and accurate method for incorporating these votes
- The mobile applications to be researched and developed by the University will be unique and designed to be available to all election officials;
- New research will be been done to identify sources and develop cost modeling for alternative service delivery methods;
- New research to identify appropriate partners to enhance the availability of the tools developed by having them incorporate the tools into their service structure;
- All systems will be designed to meet Section 508 requirements and this study will further work with consultants who have specialized skills in identifying assistive technology components and usability requirements in the election process and incorporate those concepts into all design development processes;

#### Scalability:

The design of this system is geared toward maximum scalability of software components and ongoing service through 2018. The end cost model is designed for ongoing usability. The product will also incorporate design elements that would allow other states or local jurisdictions (assuming same ballot design criteria as Missouri) to utilize the system up to current capacity limits. These limits will be identified and costs developed to expand the process to any jurisdictions.

The project will utilize, if available in a timely fashion, common data format criteria to be established by NIST. The project is not designed to incorporate state specific ballot design issues that do not exist in Missouri (i.e. straight party voting, ballot rotation).

#### **Collaborative Qualities of the Project:**

The project will be collaboration between State, local election officials (116 jurisdictions) and University of Missouri -Columbia.

The University of Missouri Columbia is one of the nation's 76 land grant Universities whose mission is to expand the research conducted at the University beyond the campus and into communities. As such, the University works within a consortium of land grant universities to expand the research not only to Missouri communities but also to other states. This unique system may assist in expanding the work product developed under the grant to other states and local jurisdictions. In addition the University has developed prior working relationships with military base personnel, other colleges and universities and state agencies that will be involved in this project.

# Cost Benefit Analysis:

Although this is a statewide project covering all election jurisdictions we propose to focus cost benefit and return on investment analysis to the jurisdictions that process more than 200 ballots. These represent 75% of the UOCAVA voters and reduce the study pool from 116 jurisdictions to less than 20. These entities cover a range of jurisdictions with varying degrees of available staffing. They also contain jurisdictions that have military bases, colleges and universities and National Guard sites that are focal point for most UOCAVA applications. This way we can focus on more in depth analysis.

The system will incorporate tracking processes to analyze site visits, application access, online ballot delivery, error tracking. Cost benefits of various designs will be analyzed prior to implementation to determine most economical and broadest use design for long term implementation. Research programs and communication/marketing application will identify usage rates. If possible, traffic flow will be analyzed to determine ways to improve usage by UOCAVA voters. Utilizing partnership development will increase usage by UOCAVA voters thereby lowering cost per vote and LEA overhead.

Critical to this will be developing a cost effective method to translate voted paper ballots to readable formats in the ballot counting process. Allowing online delivery of ballots without this will cause an increase in LEA workload through having to re-mark ballots. Current estimates of vendor provided systems are not feasible on statewide basis so alternative processes need to be researched, designed and developed.

# Security Measures

Throughout the process we will have the University Cyber Security program assist with development of state of the art security procedures and controls. In addition, research will be conducted on the specialized nature of ballot security in the online environment and tools to protect against fraudulent use of services provided to UOCAVA voters.

#### Schedule and milestones:

# FPCA(Registration and Absentee Application) Web Tool

August 2011 – contract awards and determine data elements for state database; determine functional elements work plan for state vendor to develop quotes

August 2011 – Meet with targeted LEA's for design meeting and have Cyber Security research and reviews completed

September – initial design & design phase usability testing and define automated email system requirements

October – develop and test security/privacy plan for FPCA data transmission

October 1 – finalize design elements for University program development

November 1 -final design plan to State database vendor for contracting April 1 deliverable November – develop voter notification protocols to connect voter to the LEA and inform on the status of application

October 1 to December 1 University coding and testing of FPCA functions

December 1-7 – usability testing of final product

<u>MILESTONE</u> Key Assessment point: December 15 – FPCA testing and dual processing in Boone County.

Development of LEA training materials

January – April – live processing in Boone County and development of LEA training materials

April – final testing of State Database merge programs.

Late April/ May – LEA training of MCVR merged application processing

MILESTONE May 15 2011 – live implementation statewide

Key Assessment Point

Simultaneous – research and development of mobile apps for this function

#### **Online Ballot Delivery Tool:**

2011

August 2011 – define data elements for state database. Review design options. Meet with LEAs for design meeting and present design options

August 2011 – meet will ballot counting system subcontractors (Premier and Sequoia) to conduct feasibility study on creating exports of ballot definitions and review returned ballot processing options

September 1-15 – Cyber Security research and reviews and develops security plan and design phase usability testing and review IEEE and NIST common data format requirements

September 15-30<sup>th</sup> – review system plan to LEAs at state conference and define automated email system requirements

October – develop design elements for State Database – submit to vendor for pricing <u>Milestone</u> October 15 – final design plan with University

October 15 through December 15 – design and development of online system; research on ballot printing system

November 15 – Boone County sample presidential primary file extracts available to University

November 15 - finalize design contract with State database vendor

December 1 – usability testing of sample online ballot data

December 15 – Boone County notifies UOCAVA voters of new system for online signup test voter notification email system.

December 20 – data extracts of precinct district data for presidential primary from Boone County

<u>Milestone</u> December 27 – online ballot definition system live for Boone County 2012

<u>Milestone</u> week of January 15, 2012 – online ballot delivery system live for Boone County UOCAVA presidential primary voters (legal deadline January 20)

January 15 through March 15 – ongoing processing of Boone County presidential primary voters, statistical reporting and voter usage; Develop training materials

April 10-15 Usability testing of state database modifications

April 15 – complete final testing of State Database extract programs

April-May – LEA training

<u>Milestone</u> May 29, 2012 online ballot definition system goes live for 20 largest UOCAVA jurisdictions (and others who choose to participate)

<u>Milestone</u> Week of June 17 Online ballot marking system goes live for participating jurisdictions and voters

June 17-August 15 – ongoing statistical reporting and monitor modifications needed modifications needed

August 15 – Lessons learned review and modifications due

August 15 – August 25 additional training programs

August 25<sup>th</sup> final modifications due and online ballot definition system goes live for all jurisdictions

Week of September 17<sup>th</sup> – online ballot marking system available statewide (legal deadline September 21

<u>Mobil Apps</u> – this process will run in conjunction with the above systems and will include identifying and meeting with Missouri military base and National Guard personnel early in the process to insure timely delivery of services that service group;

# Research -

September 2011 – November identify and coordinate technology based voter outreach summits to develop technology distribution partners and pathways to connect UOCAV voter with LEA; survey UOCAVA voters and third party application processors (i.e. Overseas Vote Foundation)

November 2011 to January 2012 – define research models and additional mobile application concepts, finalize partnership contacts;

January to May develop partnership applications identified in research and conduct Cyber security research on electronic return of ballots;

June - deploy partnership applications in conjunction with state FPCA rollout

June – November – monitor partnership participation for connecting UOCAVA voter to LEA November – December 2012 – review and report data evaluate lesions learned and determine programs for future implementation; report on cyber security findings for potential for future models for online delivery of voted ballots;

Post 2012 (through 2018) – maintain online systems developed under this grant at no cost and provide ongoing assistance to LEA's; provide software to other state and local entities at no cost; develop low cost fee for service pricing model for post 2018 that any jurisdiction will be able to use. Continue research and development of applications for partnership development;

# REPORTS

Administration, status and financial;

Boone County will provide status reports on application development at least quarterly; Boone County will provide implementation reports within one week of each milestone that identifies problems and successes;

Research reports and recommendations for cyber security controls will be provided upon receipt by the Boone County Clerk;

Contracts will be available upon approval by Boone County Commission;

Status updates with state database vendor will be provided quarterly;

Boone County will arrange for FVAP personnel to participate in application testing and consolidate reports and recommendations from that testing;

Boone County will provide review and report on consultant work at least quarterly; Boone County will file report of progress in conjunction with any payment in excess of 10,000 to single source;

Boone County will separately track and report all financial transactions and maintain records appropriate with state and federal requirements provide all required financial reporting; Boone County will comply with all audit requirements arising from this grant but is requesting funding for additional costs Boone County will incur as a result of this grant (i.e. major program audit – see budget request)

Boone County will separately track all equipment and software purchase made from grant funds; All audit reports for Boone County will be available to the FVAP and the public at www.showmeboone.com/auditor

Boone County will development contracts and schedules to insure appropriate reporting compliance with federal grant requirements from sub-recipients;

Boone County will develop, in conjunction with the state and LEA's a method for defining any cost savings, error reduction, and possible cost increases; this data will be used in conjunction with application, ballot delivery and ballot processing statistics to develop a final return on investment report in January 2013;

Boone County will use statistical reports generated from current and developed systems to identify and report improvement in successful completion of ballots from application to counting for UOCAVA voters in Missouri;

#### Statistical Reports:

Online application and ballot delivery systems will be designed to track and report statistics of accessed, submitted, processed, received, approved and notified;

Email notification systems will provide statistics on quantity and content coding (i.e. application accepted emails sent; application rejected emails sent: etc)

Online systems will be designed to collect detailed transaction data and produce reports statistics for usage, error, voter status, voter activity and other including but not limited to: Date time source (ip address);

Prior to implementation, research will be conducted to identify a comprehensive set of transaction tracking recommendations that will be incorporated into the system;

Transaction statistics will be reportable by state or jurisdiction on demand and downloadable in common format (i.e. csv) for additional desired analysis and report generation;

Helpdesk transactions and reporting will be provided at state and local level;

Immutable audit logs will be developed and report generation of those logs will be available;

Mobile apps will be developed with tracking systems for downloads;

Mobile apps will be evaluated for inclusion in the Reynolds Journalism Institute annual survey of IPod apps

#### **Research reporting**

How to utilizing successful business models for data mining, extracting social network data, web transactions to connect UOCAVA voters with tools developed and their LEA;

Cyber security report on potential avenues for the future of returning ballots electronically;

Survey data from UOCAVA voters before and after the development of these products;

Survey data from states on availability of web based absentee/registration application and ballot delivery processing;

Reports and recommendations from each of the four proposed summits (see budget narrative) designed to assess best uses of available data mining options to identify and reach our customer base; build partnerships with social media, web search, not for profit and political who provide third party applications to create convergent technology; and engage media leaders to develop public education campaigns on availability of tools;

Usability testing reports and documentation on how to incorporate applications with assistive technology to maximize usage by disabled voters;

Quarterly updates of research status, findings and recommendations;

Special reports and papers that may derive from any of the above research;

How the technologies and systems developed can be expanded to the disability community and general voting population to increase return on investment;

These reports will be completed and filed by end of January 2013 along with a final report - contents will be developed in consultation with the FVAP staff.

# iv. MANAGEMENT APPROACH

Personnel:

PROJECT DIRECTOR: Wendy Noren Boone County Clerk

Wendy Noren will manage the grant on behalf of the County of Boone and coordinate with subcontractors in the design, development, testing and implementation of all products under this grant. She will also advise on research topics and coordinate consultants and identify potential participants in research studies on technical, security, and outreach efforts. She will be responsible for all administrative aspects of the grant and coordinating compliance by the subcontractors.

Ms Noren is serving as Project Director and is the applicant for this grant because many of the products to be designed and delivered have already been in production in Boone County. She has previously designed, programmed and implemented the automated web voter/absentee application sites, automated ballot email notification system and secure data transfer systems to an from the Secretary of State database. She also designed specifications and programmed the data extracts used in the pilot online ballot delivery system used in 2010 through EVSW.

Ms. Noren will be responsible for working with University of Missouri, Secretary of State and LEA's to create functional design specifications, assist with the development of specifications needed state database modifications; work with University staff on design of online applications; develop test programs for data extraction and transfer; conduct pilot program in Presidential Primary using live system; assist with development of training programs and provide financial management of the grant. Ms Noren will investigate methods of electronically counting ballots returned by mail (i.e. through barcode of votes cast). She will also assist with the development of survey applications and results, coordinate seminar development and review research progress.

It should be noted that most of the design elements already exist for these programs. Ms Noren will need to review them with the state and University, develop test scripts for any modifications monitor usability testing results and manage the dual processing. Programs for use in Boone County were developed in 2010 and will require only minor modification.

This project will be accomplished through establishment of inter-governmental contracts between the County of Boone (Boone County Clerk), the Office of the Secretary of State and the University of Missouri-Columbia.

#### Secretary of State Role:

The contracted responsibility for the Secretary of State is to coordinate services that will be provided by vendor who has the contract to maintain and develop enhancements to the state voter registration database (MCVR). These services will include the development of extracts

from and imports to MCVR to accomplish the necessary updates from web based transactions and creation of ballot data for online ballot delivery.

The goals for this part of the project are to design the imports, interfaces and exports of data to reduce redundancies in election management processing between the MCVR system, the ballot counting system and the new system for online ballot delivery two options will be studied:

Option 1

- create exports of precinct, precinct split, district, and jurisdictions files for export to a web interfaced developed by the University
- entry of candidate, proposition, races files on the web portal designed by the University by LEA's
- export of the necessary date from the University back to the MCVR and for use with the ballot counting system used by the county

Option 2

- create the all of the files on the MCVR system and export all data to the University system

Both systems will need to be reviewed to determine the best, most economical, usable and expandable process. Advantages and disadvantages have been identified for both options. The Secretary of State and the Boone County Clerk will work with LEA's in determining the preferred option based on current and future needs.

The State of Missouri contract for maintenance of the MCVR system is currently in an RFP process. At this point we cannot say who that vendor will be or what the terms of the contract will provide.

We know certain portions of these extracts will fall under the general terms of the vendor maintenance contract (creation of extracts for currently stored data) and other components will probably require additional payment to the vendor as special enhancements.

The State and the Ms. Noren have already started preliminary review of current and future fields needed to accomplish either option so they will be prepared to quickly develop criteria for the vendor to review and develop cost estimates.

# University of Missouri - Columbia role

The major portion of this products, research and services arising from this grant will be provided through the inter-governmental contract with the University of Missouri-Columbia. The University of Missouri is one of 76 land grant institutions in the US and the state's only higher education research institution. By law and longstanding practice, the mission of the Missouri's flagship campus is to extend the benefits of its research capacity to all Missouri citizens and communities.

The responsibilities and designated divisions are broken down as follow:

<u>College of Engineering Computer Science Department</u> <u>Reynolds Journalism Institute (RJI)</u>

-Design, develop and implement online application and ballot delivery systems; develop electronic communication systems for LEA's and UOCAVA voters and maintain these systems through 2018;

- Provide open source applications that could be available at no cost for migration and implementation by any state or local government who can support its functions.

- Provide a low cost perpetual solution affordable to all Missouri jurisdictions after the maintenance period is over;

- Research and develop mobile apps for extending the use of these systems to the broadest number of UOCAVA voters;

- Research modern business technologies for data mining to for identifying and serve a specific eustomer base and make recommendation for possible development of such technologies;

- Research, identify and develop partnerships with targeted groups to maximize usage of products developed;

- Provide cyber security research, recommendations and implementation for all products developed;

- Incorporate design elements that maximize usability and interface with assistive technology to insure a positive voting experience for persons with disabilities;

- Research and develop lowest cost and most accurate method for processing electronically delivered ballots that are returned by mail (i.e. votes embedded in barcode to scan);

- Research the potential future needs and security issues relating to electronic return of voted ballots and make recommendations for potential areas of development;

- Other research topics that arise through summits organized to maximize usage and outreach;

- Research and recommend ways the products developed under this grant can be expanded to disability groups or the general public to increase the return on investment;

- Assist in the development of return on investment criteria;

- Prepare necessary files and systems to meet the statistical reporting requirements of this grant;

- Work with designated personnel to develop and provide facilities for training programs for LEA's

These two divisions will provide a strong pool of experts to perform the above services and are committed to providing all resources necessary to meet the outlined tasks.

RJI was established in 2004 with a \$31 million grant and its mission is to use develop technology for media and advertising use in promoting democracy. It has a one-of-a-kind technology futures lab that is at the forefront in the development of new ways to keep citizens informed through media and advertising.

The College of Engineering has state of the art facilities, technology experts and cyber security personnel that can develop a safe, secure, usable solution to the problems faced by UOCAVA voters.

# Truman School of Public Administration

- develop and provide training for LEA's on the systems developed
- work with College of Engineering to develop training materials and programs
- develop a lessons learned component for post 2012 election review

Boone County will contract separately under this grant for the training services provided by the Truman School. Missouri LEAs and the Secretary of State have a longstanding relationship with the Truman School personnel who have previously developed and provided both training programs and "lessons learned" sessions. They have also managed one of the most successful College Pollworker Programs in the country through a grant from the EAC.

They have previous knowledge of the kinds of training materials needed for the wide range of people who conduct elections. They will review the products during design and testing phase and work with the Boone County Clerk on the initial live processing phase to develop necessary materials and arrange the training schedules. Approximately 150 LEA personnel will need training on the new systems.

#### Usability testing:

The County will contract separately under this grant for use of the University's usability testing labs and personnel. The testing will be based on outside consultant recommendations for usability testing of ballots.

# Strategic Goals:

- To improve the ability of UOCAVA voters to apply, vote and have their vote counted; -To provide low cost, usable, permanent process for Missouri LEA's to provide electronic application and ballot delivery tools to UOCAVA voters;

- Develop systems that will reduce the workload for LEA's and improve the service to UOCAVA voters;

- To incorporate sound usability testing and components that enhance the experience of disabled UOCAVA voters;

- Develop tools to increase the probability the systems developed are used by UOCAVA voters;
- Develop partnerships to make the systems developed available to UOCAVA voters
- Research methods to identify and serve UOCAVA voters;

- Provide the strategies and research previously detailed in the University responsibilities

#### Current Analysis:

No Missouri county other than Boone County has any automated, web-based registration and application system. All other counties must enter data from forms submitted.

The only electronic delivery method available to all counties but Boone is to individually address and write an email, attach a pdf of the correct ballot and affidavits and send.

#### Justification for modification

These procedures are time consuming and have a higher rate of error than automated systems

These procedures discourage use of electronic ballot delivery

Process:

Each of the defined responsibilities contain the elements of processes to be used

#### Potential risks and mitigation factors:

Unless system is designed correctly it could cause another layer of work for LEA; Unless designed correctly the user interface could cause a higher error rates by voters; Collected and transmitting sensitive data across multiple platforms increase possibility of privacy breach;

#### Mitigation factors:

Strong design elements that identify areas to reduce LEA workload Strong usability testing to insure user interfaces do not create ballot errors Create strong privacy by design and security controls into the system

#### Performance indicators:

Evaluation of statistics on ballots applied, sent received and comparison to prior data. Voter satisfaction surveys LEA satisfaction surveys

#### Projections for effectiveness of modifications:

Boone County had 90% participation rate when voters given were the option for electronic delivery of ballots;

Boone County had reduced data entry errors when voters were allowed to enter their own data; Boone County saw a reduction in staff time need to process applications and ballot delivery packets;

Development of ballot tabulation method for returned ballot will reduce labor cost to transfer voted paper ballot to scan ballots.

1. Current and Pending Project Proposal Submissions

Boone County Clerk currently has the following grant agreement:

Title of Proposal and Summary:

# EAC Logic and Accuracy Grant – develop a toolkit for automating the pre-election logic and accuracy test process

Source and amount of funding: US EAC \$25,000 through 12/31/2012 Percentage of effort to funding: <10% Prime Applicant: Wendy S. Noren Boone County Clerk Technical Contact: Wendy S. Noren Boone County Clerk 801 E Walnut Rm. 236 Columbia Mo. 573-883-4295 573-886-4296 Period of performance June I, 2011 through Dec 31, 2012 Award period – same as above Labor hours devoted to project – 280 How projects are related: Data elements extractions pulled for Logic and Accuracy Grant will be same as data elements extractions pulled for this grant Data extractions are used to create random ballot selections for logic and accuracy testing

#### Qualifications: Project Director

Ms. Noren has been managing elections in Boone County Missouri since 1978 and designed, developed and programmed all of the voter registration software utilized in Boone County and all programs referenced in this proposal including: programs incorporating voter web transactions for registration and absentee application to the registration database, automated email notifications of application and ballot status and secure transfer voter data for to and from the state voter database. In addition she had designed as worked with county web programmers who coded all of the front end voter entry interfaces for voter registration and absentee application.

In 2010, Ms. Noren designed the specifications for Missouri's participation in the FVAP EVSW pilot program was responsible for programming all of the data extractions and FTP secure to the FVAP vendor to use in providing the online ballot marking system. Approximately 70% of Boone County UOCAVA voters utilized the system even though the final version from the vendor was not available until a week after they received the PDF version of their ballot. Based on the comments of users and Ms. Noren's own experience with the system, she believes this is the best method for providing electronic delivery of ballots to UOCAVA voters and it is important to expand its use to all Missouri jurisdictions.

Ms. Noren has also had extensive experience on a state and national level in researching and recommending policy and procedures for elections officials. Specific to this project is work on the Board of Advisors to the US EAC and its subcommittee reviewing voting system standards and the National Academy of Science State Database Interoperability study. These projects have given her extensive contact with leaders in all fields relating to integration of new technology to the election process.

Biography attached

Also attached:

#### Sub-contractor CV:

Dale Musser - Project Director for University of Missouri - Columbia

#### BUDGET PROPOSAL COSTS ASSOCIATED WITH DELIVERABLES

1. Direct Labor

Project Director – 200 hours 39.45 per hour 82,061 annual 7,800

Hours:

Design Development – 40 hrs Coding and Testing - 60 hrs Research Review - 40 hrs Administration and Reporting – 60

Legal Counselor 819.00 40.95 per hour 20 hours \$85,176 annual

Contract development and review - 20 hours

Administrative and Clerical

100 hours at 12.00

Account payment processing and general clerical (copies, correspondence) Total 1200.00

Fringe Benefits - county does not have negotiated F&A

1,137 Project Director 112 Legal Counsel 1,249 Total

Calculated by: 11,966 annual for benefits total Project director @ 9.5% of total annual Legal counselor @ .96% of total annual Travel 16,500

Training on new system requirements in Columbia Mo. – participants will be election authorities from all over state.

150 at 110 per person

Based on CONUS lodging, breakfast and lunch MIE

Training sessions for election officials on new programs developed under grant

Subcontractor

University of Missouri - Columbia 500,948

Proposal and justification attached

Additional:

University of Missouri Training: 30,000

To be negotiated after training modules defined. Pricing based on prior services cost Training sessions over varying period for 150 people in computer labs Design development of training materials

University of Missouri - Usability lab and testing program - 30,000

To be determined after usability testing program finalized Estimate provided based on prior usage and projected test modules

State of Missouri Secretary of State 75,000

Amount will reimburse the state selected vendor who will provide maintenance and modifications to state voter registration software.

Amount is estimate until:

1. State completes its RFP process and finalizes contract

2. We finalize the design specifications for new procedures

3. Modifications are submitted to vendor to negotiate items covered under general maintenance (no charge) or if they are modifications not covered under general maintenance. Modification costs will be billed to state and reimbursed by grant funds.

Consultants:

Consultants can not be contracted for until grant funds approved and purchasing policy followed. We anticipate these will be sole source service contracts but the scope of work will have to be reviewed under purchasing policies:

Consultants will be used for the following purposes:

#1 - \$12,000

Usability test design consulting – need to have someone who has specific research, design and testing with ballots and election related materials.

Cost based on prior estimate maximum 1500 per day.

#### #2-\$10,000

Develop reporting system, assist with compiling and review research reports, and assist with survey review and consolidation

Current election schedule (4 elections in 8 months) will make it impossible to compile and submit necessary reports from project director. Need someone with experience in monitoring and reporting election costs and translating that into public policy goals.

Based on cost estimate - rate and terms will be determined in contracting phase

#### #3-\$5,000

Need consultation on assistive technology issues to advise system developers. Contract to be negotiated if appropriately funded

Materials and Supplies:

Training manuals – 150 at 40.00 per unit. Based on prior pricing of training materials.

Other Direct Costs:

#### \$35,000

Ballot Converter system (1) – will be used to test cost effectiveness of one option for tabulating returned voted ballots. Includes software and hardware for ballot conversion to optical scan ballot. Quote from vendor (Advance Ballot Solutions) will be subject to County RFP requirements unless sole source.

\$5,000 Reimburse County of Boone for additional audit costs for under major program audit requirements. County would not have these costs without the grant. Request is based on cost of last major program audit.

# ADDITIONAL FUNDING REQUEST FOR HOSTING SEMINARS

The research and outreach components of this grant would be greatly enhanced through the convening of 3 small group (no more than 8) seminars with experts in the certain areas of concentration. They would actually be work sessions that would allow researchers to have access to expertise to focus research and outreach concepts. We believe these are key to the success of the overall program.

Group I – expertise in data mining and commercial data collection – guide research on ways to identify and serve UOCAVA voters. What tools are businesses using to identify and reach their customer base through data mining. When I book a flight to XYZ city how am I getting emails from rental car companies with deals for that city. Can we mine that same kind of data, what data should we target and how much does it cost

4-5 peoplePossible cost:25,000 – We may have to pay this group to participate

Group 2 – representative of groups that are 3<sup>rd</sup> party application providers (i.e. Overseas Vote Foundation, League of Women Voters)

It does us no good to have forms that collect and merge data with our database if people go to these sites – how do we get them to help us get the data we need.

4-5 people Possible cost:

7,500 travel etc.

Group 3 - Google Facebook Linkedin Twitter etc (maybe PEW with this group)

Can we utilize their resources to target the groups we need to service? Could we use Google as the host site for  $3^{rd}$  party users to post the application data they collect to merge with our data? What technology do they have that we can use. Example – can we get to a Facebook person who was born in Columbia Mo and is now in Prague?

4-5 people Cost could be 25,000

All of these we would like to get for free. We would like to negotiate this with FVAP and get the best brains for the lowest price.

#### Technical Proposal Catalog of Federal Domestic Assistance Number: 12.217 BAA number: H98210-BAA-11-0001

#### California Online Voter Registration (COVR) Project Proposed Performance Period: August 2011 – November 2012

CAGE Code: (b)(4) DUNs Number: (b)(4) Applicant: Secretary of State, State of California Sub recipient: Department of Motor Vehicles, State of California

Technical contact: Chris Maio Information Technology Division Secretary of State's Office 1500 11<sup>th</sup> Street, 4<sup>th</sup> Floor Sacramento, CA 95814 Phone: (916) 653-7835 Chris.Maio@sos.ca.gov

Administrative/business contact: Debbie O'Donoghue Secretary of State's Office 1500 11<sup>th</sup> Street, 6<sup>th</sup> Floor Sacramento, CA 95814 Phone: (916) 653-6173 Debbie.ODonoghue@sos.ca.gov

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#### I. TECHNICAL APPROACH AND JUSTIFICATION

#### A. Executive Summary

California has 90,000 uniformed and overseas citizen absentee voters (UOCAVA voters). Many more citizens who are eligible to vote and living abroad have not yet registered to vote. The Federal Voting Assistance Program (FVAP) estimates the number of military and overseas citizens from California to be 672,686. UOCAVA voters – particularly military personnel – live, work, and serve our country from locations all over the world, yet California's paper-based voter registration system makes it difficult for them to participate in our democracy. To better serve citizens who live and work in remote locations of the world, California needs to develop a fast voter registration system, not one reliant on the mail delivery of hand-marked paper voter registration cards. Fortunately, California law is changing. The State Legislature has authorized online voter registration to coincide with the rollout of a new statewide voter registration database in 2015, and Senate Bill 397 (SB 397) is moving through the Legislature this year to require the Secretary of State (SOS) to begin online voter registration as early as 2012.

While California is poised to remove the legal barriers to online voter registration, California's state budget circumstances are dire. The SOS has experienced severe budget cuts since 2008 and state and local agencies in California face further cuts this year and in coming years, making the development and rollout of new projects extremely difficult. An infusion of FVAP funding for the proposed California Online Voter Registration (COVR) Project would help make online voter registration a reality for UOCAVA and other voters in next year's Presidential Election.

The SOS proposes to develop and implement online voter registration for UOCAVA voters and other California citizens in time for the 2012 General Election. The COVR Project involves creating an interactive voter registration website to serve military and overseas citizens and other California citizens. The website will include key questions from the Federal Postcard Application (FPCA) for military and overseas voters, so that UOCAVA voters can both register to vote and request a special absentee ballot online. To provide online voter registration, the SOS proposes to create an electronic, interactive connection between the California Department of Motor Vehicles (DMV) and the SOS in order to match records and transfer signature images from the DMV to the SOS. The DMV has electronic signature images on file for an estimated 94% of California citizens, eliminating the need for voters to sign a paper voter registration card.

The COVR Project will allow UOCAVA voters located anywhere in the world to complete their voter registration application online and receive instant confirmation of a DMV match. The SOS will receive online voter registrations immediately and forward them to the 58 county elections officials in California for processing. The COVR Project will greatly expedite voter registration and – for the tens of thousands of voters who register in the final weeks before Election Day – will drastically shorten the time between registering to vote and receiving a ballot. Once built, the COVR Project will be sustainable within existing SOS budget resources for future elections. Therefore, the SOS is seeking only one-time funding from FVAP to develop, test, and roll out online voter registration in the coming months, so that California can cover UOCAVA voters' needs for the 2012 Presidential General Election and beyond.

#### **B.** Goals and Objectives

While California has systems in place to transmit blank ballots and voting materials by email and fax, our paper-based voter registration system remains a barrier for overseas citizens. California law still requires all voters to sign a paper voter registration card by hand and mail that card back to California to register to vote. Using paper and the international postal service means lengthy delays before elections officials can receive and process new voter registrations.

UOCAVA voter mobility complicates matters further. According to the 2010 U.S. Census, about 15% of Californians move every year. Military personnel and their families, however, move much more often. Military officers move to new bases about every three years, which means about 33% of the officer population moves every year. Others in the military move even more frequently. In the first year or two of service during military training, and again during deployment in active military engagements, service personnel may move locations several times during the course of one year. In addition, since UOCAVA only provides for the automatic transmission of ballots for two election cycles to voters who register an overseas address using the FPCA, UOCAVA voters must re-apply for special absentee status every two years. Paper-based voter registration is cumbersome when it comes to registering and re-registering a mobile population and ensuring that ballots and voter information go to the correct mailing address.

#### Goal: Strengthen Democracy by Better Serving UOCAVA Voters and other California Citizens

One of the SOS's goals as chief elections officer for California is to strengthen democracy by engaging more people in elections and voting. The SOS has a responsibility to ensure that registering to vote and casting a ballot is as easy as possible for all eligible citizens. Providing online voter registration to UOCAVA voters and other California citizens fits squarely with this larger goal.

In 2009, the SOS created an online fillable voter registration form that voters could fill out, print, sign and mail to their county elections office. In 2011, the SOS developed a means of electronically capturing all the data from the online voter registration form so that elections officials can avoid re-entering the data into their systems when the paper print-outs of those forms containing voter signatures arrive in the mail from voters.

#### **Objectives**

The following is a list of objectives for the COVR Project:

- Establish and operate a reliable, secure, easy-to-use, interactive voter registration website for military and overseas citizens that can also be used by other Californians wishing to register to vote.
- Establish and operate a reliable and secure electronic system to collect and match data, verify voter identity, and transfer signatures from the DMV to the SOS for online voter registration applicants.

- Reduce the amount of time from registration to ballot receipt for UOCAVA voters.
- Reduce the number of UOCAVA ballots sent to the wrong mailing address due to delays in receiving paper voter registration cards.
- Increase the number of military and overseas citizens who are registered to vote in California.
- Increase the percentage of UOCAVA voters who return their ballots by Election Day by removing the delay caused when paper voter registration forms are sent in the mail to elections offices in processing registrations, which in turn causes a delay in sending blank ballots to UOCAVA voters.
- Create a successful model for online voter registration replicable in other states.

#### New Electronic Tools to Improve the Voting Process for UOCAVA Voters

The COVR Project involves creating an interactive voter registration website to serve military and overseas citizens and other California citizens. The website will include key questions from the FPCA for military and overseas voters, so that UOCAVA voters can both register to vote and request a special absentee ballot online. To provide online voter registration, the SOS proposes to create an electronic, interactive connection between the DMV and the SOS in order to match records and transfer signature images from the DMV to the SOS. The DMV has electronic signature images on file for an estimated 94% of California citizens. Transferring signature images from the DMV to the SOS eliminates the need for voters to sign and mail a paper voter registration card.

The COVR Project will allow UOCAVA voters located anywhere in the world to complete their voter registration application online and receive instant confirmation of a DMV match. The SOS will receive online voter registrations immediately and forward them to the 58 county elections officials in California for processing. The COVR Project will greatly expedite voter registration and – for the tens of thousands of voters who register in the final weeks before Election Day – will drastically shorten the time between registering to vote and receiving a ballot. Once built, the COVR Project will be sustainable within existing SOS budget resources for future elections.

#### Increasing New UOCAVA Registrations: California Online Voter Registration Drive

In 2012, the SOS plans to conduct a "California Online Voter Registration Drive" using the SOS's own voter outreach resources and coordinating efforts with FVAP and the Overseas Vote Foundation (OVF). The SOS online voter registration website will be available to both UOCAVA voters and the general public, and the SOS will make its availability known through print, radio, and television news media in California as well as international media outlets, which have U.S. citizen audiences. The SOS will also build on past successes in reaching out to people through global social networking websites, such as Facebook and Twitter. Outreach efforts may be focused around the message: "Not registered to vote? We've got you covered: California Online Voter Registration Drive. Sos.ca.gov/COVRD."

#### Reduction in Failure Rates for UOCAVA Voters

In the November 2010 General Election, California sent out 89,582 ballots to UOCAVA voters. While the overall turnout rate in California for the November 2010 was 60%, only about 28%, or 25,208 UOCAVA voters, returned a voted ballot. The good news is that 95.5% of UOCAVA ballots that were voted and returned were also counted in the November 2010 General Election.

Ballots sent to	UOCAVA Ballots	UOCAVA Ballots
UOCAVA voters	voted and returned	counted
89,582	25,208	24,082
	28% turnout	95.5% success

UOCAVA Voting in the November 2010 General Election

Certainly many factors contribute to the lower turnout rate among UOCAVA voters, but the SOS believes online voter registration will lead to higher turnout among UOCAVA voters, because elections officials will be able to process voter registrations more quickly, which will allow ballots to go out to UOCAVA voters more quickly, giving UOCAVA voters more time to vote.

While the federal Military and Overseas Voter Empowerment (MOVE) Act requires UOCAVA ballots to be sent 45 days before Election Day, people can register to vote – or re-register at a new address – all the way up to 15 days before each election in California. This means elections officials mail ballots 45 days ahead for all voters registered *at that point in time*, but elections officials continue sending ballots to individual UOCAVA voters as new UOCAVA voters register (or re-register at a new address) between 45 days and 15 days before each election. The lag time caused by the current paper-based voter registration system very likely leaves a significant number of UOCAVA voters without a sufficient opportunity to receive and return a ballot in time to be counted. (Under state law, counties can – and most do – send out ballots 60 days before an election).

With the COVR Project, UOCAVA voters who register up to and on the deadline to register to vote 15 days before the election will still have time to vote, because their registration will be received electronically immediately, their signature on file with the DMV can be transferred immediately, and elections officials can process the registration – without waiting for a signed paper voter registration card to arrive in the mail – and send a ballot to the voter – either by mail, fax, or email as permitted by state law and the MOVE Act. Many counties, including some of California's largest such as Los Angeles, San Diego, Alameda, Sacramento, Fresno, and San Francisco already let UOCAVA voters download a blank ballot from the county website.

Even if the voter does not have a signature on file with the DMV (about 6% of eligible voters may not have a DMV record), the voter can still print, sign, and mail the voter registration. The SOS will still capture the electronic data the voter enters on the SOS website – including a voter's request for a special absentee ballot. As soon as the voter registration form with signature arrives in the mail, the county elections official will merely need to add the signature to the voter file, finish the registration process, and send voting materials.

The COVR Project will very likely reduce the existing 5% failure rate California experiences with UOCAVA voters who submit a voted ballot, because: 1) online registration will help ensure UOCAVA voters are properly registered; and 2) online registration will provide UOCAVA voters more time to download, mark and fax back their voted ballot by the close of polls on Election Day. In addition the COVR Project is estimated to increase UOCAVA voter turnout overall, because elections officials will be able to process voter registrations more quickly, which in turn allows UOCAVA voters to receive blank ballots more quickly and creates more time to vote. While it's difficult to project an exact reduction in failure rate or increase in turnout, the SOS estimates an overall reduction in UOCAVA voter failure rates and an overall increase in UOCAVA voter turnout in 2012 as compared to the last presidential election in 2008.

#### How the COVR Project Could Benefit UOCAVA Voters in Other States

If FVAP funds the COVR Project, California will become the first large state in the U.S. to offer online voter registration for UOCAVA voters and the general electorate. The COVR Project will become a model for other states considering moving toward online voter registration and online special absentee request services for UOCAVA voters.

To encourage other states to follow California's lead, the SOS plans to: 1) share the COVR Project process and results with elections officials in other states through the National Association of Secretaries of State (NASS) and the National Association of State Election Directors (NASED); 2) provide technical and policy assistance to other states wishing to move to online voter registration; and 3) share the results of the COVR Project with the media and public.

#### Security Measures

To protect personal identifying information and to prevent fraud, the following security measures will be built into the COVR Project:

- Registration will not be accepted online if it does not match a real person with a California driver's license or identification card.
- DMV signature images will not be viewable by the online applicant in order to prevent attempts to register using another's identity and then vote by mail. In California, each signature on the vote by mail ballot (or UOCAVA absentee ballot envelope and oath form signed when returning a ballot by fax) is checked against the signature in the voter registration database. If the signature doesn't match, the ballot is not counted. Therefore, even if a perpetrator successfully registered online in someone else's name, the signature they provide when they try to vote in the other person's name will not match the signature image on file, and the ballot will be tossed out.
- Registration will not be complete until the standard registration processes are completed successfully. These processes include checking the registration against the federal Social Security Administration, death records index, felon records, and checking the existing voter registration database for duplicates.

In general, the SOS will employ best practices in establishing website security, such as Secure Sockets Layer (SSL) encryption and dedicated lines between the SOS and the DMV. All SOS technology systems are protected by a firewall to prevent outside access. Finally, the SOS will conduct regular security reviews of the online voter registration system.

#### C. Schedule and Milestones

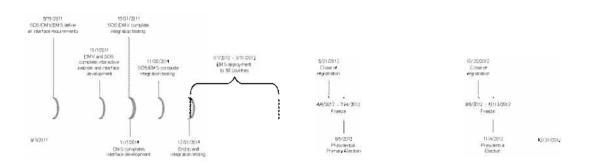
The following schedule describes in detail how the SOS will complete the COVR Project in time for the November 2012 Presidential General Election. In fact, the SOS plans to develop and deploy this project by the beginning of April 2012, 60 days in advance of the June Primary Election. The SOS plans for an April roll out because there are only seven weeks between the June Primary Election certification and 60 days before the November General Election. Seven weeks is typically not a sufficient amount of time to make significant changes to the SOS website and county voter registration systems.

Assuming a project start date of August 1, 2011, the SOS will define, develop, test and deploy an interactive web application for the SOS website and the associated data interfaces between the SOS and DMV during the eight-month period from August 1, 2011 to April 1, 2012.

The SOS and DMV will need to define the interface requirements by August 15, 2011, and the SOS and DMV will each begin their independent application development efforts. The SOS and DMV will complete their development by October 1, 2011, and complete integration testing by October 31, 2011.

The SOS and county Election Management System (EMS) vendors – assuming California counties also receive FVAP funding to create an automated system for receiving online voter registration data – would then complete their development and integration testing by November 30, 2011.

Full end-to-end testing will be complete by December 31, 2011. This provides counties with the opportunity to work with EMS vendors from January 1, 2012 to March 31, 2012, to the extent the 58 counties in California conduct projects to change county EMS systems to allow automated voter registration data transfer.



Note: California counties intend to seek FVAP funding to automate the receipt of online voter registration data – including the digitized signature images from the DMV – from the SOS. California counties intend to use FVAP funding to work with the three EMS vendors doing business in California to develop a method to collect the data from the web service hosted by SOS and import that data into their EMS. To bolster the security of this system, the EMS vendors will need to develop a means of presenting data received through the online registration system to a data analysis tool.

If both the SOS application and the California counties' application are funded, the SOS will collaborate with the DMV, the counties, and the EMS vendors so that all of these organizations can begin their development efforts concurrently. The SOS and DMV will need to complete their development first. Once the SOS is successfully receiving signature images from the DMV, the EMS vendors can complete their development of system upgrades to collect and import the voter registration data and signature images into the county databases on an automated basis.

## **D.** Reports

The COVR Project will be designed to allow the SOS to track the number of UOCAVA voter registrations submitted via the online voter registration website, so that the SOS can report to FVAP and the public on the success of the project. In addition to tracking the number of voter registrations received, the SOS will create a baseline report as of April 1, 2012, which shows the number of UOCAVA voters registered before the availability of online voter registration. The SOS will create a "results" report to show how many UOCAVA voters are registered as of January 15, 2013, after voters have had a chance to register online during the 2012 election season.

The SOS will also track and report to FVAP quarterly on the progress of completing the COVR project and on the progress of spending FVAP grant funding and submit a final report to FVAP by April 1, 2013, or sooner as required by FVAP.

The SOS will provide the following reports to FVAP:

- Programmatic and Financial Progress Reports Quarterly
- Data collection points reports April 1, 2012 (baseline); January 15, 2013 (results)
- Final Report April 1, 2013, or sooner as required by FVAP.

## **II. MANAGEMENT APPROACH**

#### A. Strategic Goals

The SOS has two strategic goals with the COVR Project: 1) enfranchise more UOCAVA voters by providing a web-based, interactive tool to register to vote ahead of the November 2012 Presidential General Election; and 2) open the door to online voter registration in California as a whole.

## 1. Enfranchise More UOCAVA Voters

The COVR Project is designed to increase the overall number of overseas citizens registered to vote. According to the United States Census Bureau and the 2009-2010 California Biennial Report to the Election Assistance Commission, California has nearly 90,000 registered UOCAVA voters. The SOS estimates thousands of eligible citizens from California who are living abroad – both military personnel and civilians – are not yet registered to vote. According to FVAP, the number of unregistered but eligible military and overseas citizens is nearly 700,000. The ease of online voter registration will help more citizens living abroad, on domestic military bases, and in California take the step of registering to vote and requesting a vote by mail ballot. Once registered, UOCAVA voters will have the option of receiving their ballot via mail, fax, email or via Internet download (more information below).

#### 2. Open the Door to Online Voter Registration in California

In 2009, the California Legislature passed SB 381 (Calderon), Chapter 613, Statutes of 2008, permitting online voter registration but requiring it to coincide with the roll out of a new statewide voter registration database, called VoteCal, for California. The current estimated date for completion of VoteCal is mid-2015, four years from now.

In light of the success of online voter registration in other states and the widespread support among voting rights advocacy groups and military and overseas assistance agencies, the SOS is seeking FVAP funding to fast-track for online voter registration in California. California SB 397 (Yee) requires California to establish an online voter registration system in advance of VoteCal and is on track to reach the Governor's desk by the end of this summer. However, SB 397 does not provide funding for the SOS, the DMV or counties to develop and implement online voter registration. SB 397 would allow voters, who have a valid California driver's license or state identification card, to fill out their registration card online and use their DMV signature for voter verification. The SOS estimates that 94% of California citizens eligible to vote have a signature image on file with the DMV.

By establishing an interactive, web-based tool for UOCAVA voters to register online and making the tool available to both UOCAVA voters and the general electorate, the SOS – with the help of FVAP – can successfully open the door to online voter registration in California for the first time ever and do so in time for UOCAVA voters and other eligible citizens to register and vote in next year's Presidential General Election.

#### **B.** Personnel

Secretary of State's Office key personnel includes: Chris Maio, Chief of Information Technology Division (ITD); Debbie O'Donoghue, Deputy Secretary of State, Voter Education and Outreach Services; Janice Lumsden, Deputy Secretary of State, Operations; and Dora Mejia, Chief of the Management Services Division. The Department of Motor Vehicles key personnel include: Shamim Khan, Deputy Director, Licensing Operations Division; and Robbie Crockett, Budget and Fiscal Branch Chief, Administrative Services Division.

## C. Collaborative Activities

The SOS has collaborated with state and local agencies in California on a number of projects involving compliance with the National Voting Rights Act of 1993 (NVRA), the Voting Rights Act of 1965 (VRA), and the Help America Vote Act (HAVA). Below is a brief description of collaboration with the DMV and with counties specific to improving California's voter registration system.

## 1. Past and Present Projects

The SOS has collaborated successfully in the past with the DMV to create technological and procedural improvements to California's voter registration database to move toward compliance with HAVA. The past collaboration with the DMV created a system of: 1) checking voter registration applicants' state driver's license and identification card numbers against the DMV database; and 2) checking – via the DMV – applicants' social security numbers against the federal Social Security Administration database. The SOS and DMV are presently collaborating successfully on a multi-year project to procure a new statewide voter registration database system, called VoteCal. The past and present collaborations with the DMV on improving the statewide voter registration database provide a solid foundation for this proposed collaboration. The SOS has collaborated successfully with California's 58 counties on improvements to the statewide voter registration system. Those improvements involved upgrading the CalVoter system and building county interfaces to improve voter list maintenance processes as required by HAVA.

## 2. Proposed Collaboration for this Project

The SOS proposes to create an interactive system between the SOS and the DMV, which will make online voter registration possible. While the proposed project does not involve collaboration with counties, the SOS anticipates future collaboration with counties to streamline the process of providing counties the new voter registration data collected from the SOS voter registration web interface.

#### D. Methodology: Steps in Development of Online Voter Registration Tool

There are four major steps in the development of an online voter registration tool for California:

First, the SOS will create a web application that allows military and overseas citizens and the general electorate in California to register to vote. The website will prompt military and overseas citizens to answer the questions needed to request and receive a special absentee ballot (see questions 1, 4.c., 6, and 7 on the FPCA <u>http://www.fvap.gov/resources/media/fpca.pdf</u>) The SOS will establish an interactive web service hosted at the DMV to perform matching. Second, the SOS will develop a method to aggregate the information for applicants where a match was made and technological capability to collect signature images from the DMV. Third, the DMV will develop a system to provide signature images to the SOS. The system will involve developing a method to respond to SOS requests for signature images. Based on discussions with the DMV, a batch process has been envisioned as the most efficient route for DMV to develop. Fourth, the SOS will provide voter registration data collected from the online voter registration website together with the DMV signature images to the counties. Counties unable to draw down data from the existing SOS-county web service will have the option of requesting and importing the data via a manual process, e.g., the SOS could provide the data on portable storage media and the county could enter the data manually into its system.

#### E. Financial Management

The SOS has successfully managed \$380.7 million in federal HAVA funds. The SOS's overall budget for the current fiscal year is \$162,000,000. This grant would represent less than one (1) percent of SOS's overall budget. Key staff members, Janice Lumsden and Dora Mejia, who manage the agency's budget and federal grant funding, will manage all grant funds received from FVAP for this project. The SOS will use the agency's existing administrative and accounting procedures to ensure that FVAP grant funds are properly managed.

#### F. Analysis and Measurement of Current Processes

#### 1. Current Paper-Based Voter Registration Process

California's current voter registration process for all eligible citizens begins with the individual applicant completing and signing by hand a voter registration application and delivering in person, by mail, or via a third-party voter registration drive to a county elections office, the SOS, the DMV, or an agency designated under the NVRA as a voter registration agency.

UOCAVA voters have the option of using the FPCA to register to vote and request a special absentee ballot. While California accepts and processes faxed FPCA forms, current California voter registration law – which requires a hand signature – requires UOCAVA voters to follow up by mailing the paper FPCA with their signature. UOCAVA provides for the automatic transmission of special absentee ballots for two election cycles to voters who register an overseas address using the FPCA.

The current process is cumbersome for UOCAVA voters, because supplies of paper voter registration applications are not readily available in remote locations of the U.S. or U.S. territories or in foreign countries. UOCAVA voters must, therefore, either contact their county

elections office by mail, phone, or email to request a voter registration application to be mailed or must have access to the Internet as well as a computer attached to a printer to download and print the federal post card application (FPCA). Aside from these barriers, UOCAVA voters may also have difficulty, depending on their location, accessing a postal service to mail the completed and signed application back to the United States. Each of these impediments makes it difficult and time-consuming, if not impossible, for UOCAVA voters to register to vote in time for an upcoming election.

#### 2. Current Voter Registration Card Receipt

Under California's existing voter registration system, each of the 58 counties receives voter registration applications from residents in the county and enters the data from each application into the county database. Currently, each county enters voter registration data by manual key entry or by optical scanning with character recognition. California's statewide voter registration database, "Calvoter," contains a copy of all county voter registration databases and is kept current by daily updates from the counties.

#### G. Analysis and Measurement of Proposed Processes

#### 1. Online Voter Registration Process

Under the proposed project, the SOS will establish an interactive website that allows UOCAVA voters – and other citizens – to register to vote online. UOCAVA voters will be able to access the website from a remote computer, smart phone, or other electronic device with Internet capabilities. The website will be compatible with common Internet browser software. UOCAVA voters will be able to enter online all information required to register to vote, request a special absentee ballot, will receive immediate notice of whether their information matches a DMV record, will submit their registration via the website, and will receive an electronic confirmation that their application was received by the SOS. Following receipt of the online application, counties will follow up with a voter registration confirmation postcard as is standard practice under California law for all new voter registrations.

#### 2. Online DMV Check Process

The project will allow the SOS to establish an automated process to compare voter registration data an applicant enters against the DMV database immediately – before the applicant finishes the online registration process. If a match is found, the applicant receives an immediate notice via the registration website. The SOS estimates approximately 94% of citizens eligible to vote in California have a DMV record. The DMV estimates that all of its existing records currently contain a digitized signature. If no match is found, the applicant receives an immediate notice that the applicant should print, sign, and mail the registration application. The system will be able to support access by both UOCAVA voters and other citizens during periods of very high workload as is common during the close of registration before a major election.

#### 3. Electronic Signature Transfer

The SOS will create an interface with the DMV to accept digitized signatures from the DMV's database, eliminating the need for UOCAVA voters with a DMV record – and other citizens who use the online voter registration website – to print, sign, and mail a voter registration application.

#### 4. Online Voter Registration Data Receipt

The SOS will capture all data entered on the interactive online voter registration website and couple it with the corresponding digitized signature received from the DMV for each applicant where a match can be made. The data will then be presented to the county elections officials through a web service made available within the SOS/County wide area network. The data for applicants that did not match a DMV record will also be stored and made available to the county through this same web service.

County elections officials will have the option of receiving this data via a manual process (e.g., portable storage media) or through an automated process that would import it into their election management system for further processing. Records that include the signature image can proceed through the voter registration process while records without signature image from the DMV would wait in a queue until the county receives the voter registration application.

Counties unable to import this data via an automated process, will be provided printable reports containing the data, which counties may process manually – either via key entry or optical scanning as with paper voter registration applications.

Note: California counties intend to apply for an FVAP grant to carry out a project to establish an automated electronic transfer of voter registration and digitized signature data from the SOS, thereby streamlining and expediting the online voter registration process.

#### H. Potential Risks and Mitigating Strategies

The potential risks are substantial and should not be held in second position behind convenience. The data coming from this application should not be treated like a traditional record generated through the current paper process. Since the application is available over the Internet, the records are being generated by an un-trusted source and will be treated as such. Some risks are not easily mitigated or involve manual processes to maintain security.

The level of automation offered by this system will potentially drive the elections officials to take a hands-off approach to managing their data. Budget cuts and the need for efficiency may ultimately drive the county to redirect resources from the voter registration task and trust the system to do the work of humans.

People who have not provided the DMV with a signature for many years may have an increased potential for their ballot to be invalidated due to the differences between their current signature

and the one on file with the DMV. The county may have a more recent signature on file than the one being presented by the DMV and the elections official should ensure the most recent signature remains in the primary position for ballot or petition validation. To mitigate this risk, the SOS has confirmed the DMV can provide the date of when the signature was collected from the registrant and we will be presenting that date together with the signature image to the counties.

The DMV has also indicated that there will be signature quality issues on approximately 10% of the images due to the quality of the digitizer pads used to collect the signature image. These aged image and image quality issues should be addressed over time as people return periodically to renew their licenses when a new image is collected on a more modern digitizer pad.

This application creates a new attack vector for individuals inclined to perpetrate voter registration fraud or mischief. As more states implement similar online voter registration systems this application may become the target of an advanced persistent threat. It should not be unthinkable for an adversarial nation to disrupt an election, attempt to affect its outcome or otherwise cast public doubt about the validity of the results.

As more and more personal information breaches occur throughout government, retail, and banking industries, the likelihood of someone having enough information to register other people to vote increases. Through existing county elections official's websites, it is very easy to determine if an individual is already registered to vote. The attacker would only need to catalog and then register those who are not and then devise a method of casting ballots for them. The attacker may also change information about existing registered voters, perhaps requesting an address change, political party preference change, or opting to become a permanent vote-by-mail voter to potentially intercept a ballot.

Although they will certainly be designed into the system, traditional technical security mechanisms like "Completely Automated Public Turing test to tell Computers and Humans Apart," known as "CAPTCHA," and data encryption may be insufficient to detect or thwart these attack vectors. The skilled attacker will make the registrations appear very real to avoid detection.

To mitigate these risks, new data analysis methods will be developed to identify potentially fraudulent records and this analysis will need to occur regularly at both the state and county level. State elections investigators will be trained to perform this analysis and will coordinate with the counties to pursue their investigations.

Since the web application will behave interactively with respect to DMV matching, it could serve as a fishing tool for the attacker who has no interest in voter registration and is more interested in using the tool to verify identifying information to perpetrate fraud in general. For instance, the attacker may have a list of names and drivers license numbers but does not have the dates of birth. He would simply need to run the list through the application and guess at the birth date until the application indicates a successful match. The use of a CAPTCHA will slow the attacker down but it will not eliminate the ability to misuse the online voter registration system.

## I. Performance Indicators for Each Proposed Process

#### 1. Online Voter Registration Application Process

The project will be completed so that military and overseas citizens have access to the SOS Online Voter Registration Application at least 60 days before the 2012 Presidential General Election and for future elections as the system continues to operate

Military and overseas citizens with a matching DMV record are able to submit their application via the Internet 80% of the time. (This performance indicator is set at 80% in anticipation of some potential technological problems which may occur either with the applicant's computer device or Internet access or with the SOS's system due to the likely high volume of applications near the voter registration deadline.)

The SOS online voter registration website gives military and overseas citizens the option of printing, signing, and mailing their application, if they experience technical difficulties with submitting their application over the Internet.

#### 2. Online DMV Check Process

Immediately upon receipt of an online voter registration application, the SOS is able to check DMV records for a match 90% of the time. (This performance indicator is set at 90% in anticipation of potential system difficulties which may occur either during initial roll-out or as volume spikes near the voter registration deadline.)

The DMV check process will be successful for 70% of online voter registration applicants. (The SOS estimates that more than 90% of California citizens eligible to vote have a DMV record, however, this performance indicator is set at 70% in order to anticipate variations or errors in personal information, for example, nicknames, misspellings, or transposed numbers, which may result in no DMV match.)

#### 3. Electronic Signature Transfer

The SOS is able to obtain a digitized signature from DMV records for each new online voter registration within 24-48 hours of receiving the voter registration application data.

#### 4. SOS Transfer of Online Voter Registration Data to Counties

The SOS is able provide online voter registration data to counties 100% of the time, whether this transfer is made manually (via portable storage media) or via an automated electronic transfer to county EMS systems.

## J. Justification for Moving to Online Voter Registration

The justifications for moving to online voter registration for UOCAVA voters are straightforward: 1) Remove barriers to registering and voting for UOCAVA voters; and 2) Improve convenience, speed and accuracy of voter registration services for UOCAVA voters.

#### K. Projections of the Effectiveness of the California Online Voter Registration Project

Increasing UOCAVA Voter Registrations: California voter registration data shows that about 70-75% of people eligible to vote are actually registered to vote. Applying the same percentage to the number of registered UOCAVA voters in California, 90,000, the SOS estimates there are about 30,000 eligible military and other U.S. citizens from California who are living abroad but are not registered to vote. Online voter registration is projected to be extremely effective at the basic goal of registering more people to vote, because online registration is quick, interactive, and accessible anytime from home anywhere around the world. Overseas military personnel stationed abroad and citizens living abroad with a DMV matching record will neither have to request a voter registration form nor will they have to print, sign, and mail the paper form to the United States. Voters who register online can complete their application from home or anywhere they have Internet access and will receive a DMV confirmation immediately from the website. Several states have already implemented online voter registration, including Arizona, Washington, Oregon, and Delaware. Those states have documented the effectiveness of online voter registration both in terms of voter satisfaction and confidence and in terms of cost savings. A study of Arizona and Washington showed people who registered to vote online found it to be convenient and easy to use. People who registered online also tended to vote in higher numbers than those who registered to vote using a paper form.

<u>Reducing Delays in Sending Voter Materials and Receiving Voted Ballots:</u> Speeding up the process of voter registration means voters will receive their ballot and other voting materials more quickly. Therefore, the COVR Project designed to reduce delays in sending voter materials to UOCAVA voters and allowing a timely return of the voted ballots.

<u>Cost Savings</u>: On the potential for future cost savings, a study of Arizona's system found that a Arizona County using the "EZ Voter" online registration system lowered costs to 3 cents per registration compared to 83 cents per paper registration. Online voter registration in California is expected to generate significant savings for the SOS in reduced printing costs, reduced postage costs, and reduced labor needed to receive and forward incoming paper registrations to counties. The SOS expects counties to save labor currently needed to distribute, track, receive, and scan or manually key data from paper voter registration cards into county voter registration databases.

#### L. Overall Performance Measurements

Overall performance measurements for the COVR Project are: 1) California will register significantly more UOCAVA voters in 2012 than in previous comparable federal elections; and 2) California will be able to send voting materials to UOCAVA voters more quickly as a result of the efficiencies created by online voter registration than in previous federal elections.

## M. Current and Pending SOS and Related Project Proposal Submissions

## 1. Parallel Request to EAC to use HAVA funds for the COVR Project

The SOS has submitted a letter to the Election Assistance Commission (EAC) requesting permission to use existing HAVA section 251(b)(2) minimum requirements payment (MRP) program funds already distributed to the SOS for the purpose of creating online voter registration for California. HAVA MRP funding is currently designated for other uses; however, if no FVAP funding is provided for the COVR Project, the SOS will likely pursue the option of using HAVA MRP funding next year or in the coming years to create online voter registration for California. The EAC has not yet responded to the SOS's request letter.

## 2. California Counties Application to FVAP for Complimentary Project

Three California counties, Los Angeles County, Orange County, and Trinity County, plan to submit an application to FVAP for grant funding to work with their respective EMS vendors to create a bridge that will allow all counties to receive online voter registration data from the SOS in an automated fashion. While this project is separate from the COVR Project, both projects compliment each other and are necessary to provide the most streamlined online voter registration experience possible for UOCAVA voters.

Contact: Neal Kelley, Orange County Registrar of Voters, (714) 567-7620.

## N. Qualifications

## Secretary of State's Office

Chris Maio, Chief of Information Technology Division (ITD), California Secretary of State. Maio has over 21 years in state service, beginning his career in licensing and enforcement at the Department of Consumer Affairs before becoming dedicated to information technology at that department. Maio worked in all facets of information technology both as a senior technical specialist and management before joining SOS. For the last 5 years, Maio has served as a unit and section manager in ITD before being appointed chief in 2009. As ITD Chief, Maio is responsible for the oversight and the day-to-day management of all information technology services, including the statewide voter registration system, for the Office of the Secretary of State.

Debbie O'Donoghue, Deputy Secretary of State, Voter Education and Outreach Services. O'Donoghue has worked for the Secretary of State for 10 years. O'Donoghue oversees all SOS voter outreach activities and has coordinated projects with California's 58 counties involving federal grant programs from the federal Department of Health and Human Services, under Section 261 of the Help America Vote Act (HAVA). Janice Lumsden, Deputy Secretary of State, Operations. Lumsden has nearly 25 years in state service, beginning her career with auditing, accounting and budget positions in several state departments. For the last 6 years Lumsden has served as the chief operating officer at the SOS, overseeing the Elections, Political Reform, Archives/Museum and Business Programs as well as administration, information technology and project management support activities.

Dora Mejia, Chief of the Management Services Division, California Secretary of State. Mejia received her Bachelor of Science degree in Business Administration, Accountancy and Finance from California State University, Sacramento. She is a Certified Public Accountant with over 25 years experience in accounting and finance. As Chief, Mejia is responsible for the oversight and the day-to-day management of the budget, accounting, human resources, and business service areas for the Office of the Secretary of State, including Federal grant funds.

#### Department of Motor Vehicles

Shamim (Mimi) Khan first joined DMV in February 1997, serving as the Deputy Director of the Administrative Services Division for almost ten years before being appointed as the Deputy Director of the Licensing Operations Division. Prior to her tenure at DMV, Khan worked for the Department of Food and Agriculture, and Chief of Human Resources, and served as the Director of Administrative Services. Additionally she has worked at the Department of Health Services and the State Personnel Board. Khan holds a Masters degree in Public Administration from USC and obtained her undergraduate degree in government from CSU Sacramento.

Robbie Crockett was appointed Chief of the Budgets & Fiscal Analysis Branch. In this capacity, he oversees the Budget Office, which prepares and administers the department's annual budget, and the Cost Accounting/Forecasting Section, which is responsible for the Activity-Based Costing system and the annual forecast of workload indicators. Crockett has a degree in Business Administration with a concentration in Accounting from California State University, Sacramento. During his time at DMV he has been involved in a number of projects including: Vehicle Registration on the Internet, Commercial Vehicle Registration Act, Smog Impact Refund Fee, VLF Refunds, VLF Rebates, Registration Fee Increase, SB 1500, National Motor Vehicle Titling Information System and the Diesel Smog project.

#### Technical Proposal Catalog of Federal Domestic Assistance Number: 12.217 BAA number: H98210-BAA-11-0001

#### California Online Voter Registration (COVR) Project Proposed Performance Period: August 2011 – November 2012

CAGE Code (b)(4) DUNs Number: (b)(4) Applicant: Secretary of State, State of California Sub recipient: Department of Motor Vehicles, State of California

Technical contact: Chris Maio Information Technology Division Secretary of State's Office 1500 11<sup>th</sup> Street, 4<sup>th</sup> Floor Sacramento, CA 95814 Phone: (916) 653-7835 Chris.Maio@sos.ca.gov

Administrative/business contact: Debbie O'Donoghue Secretary of State's Office 1500 11<sup>th</sup> Street, 6<sup>th</sup> Floor Sacramento, CA 95814 Phone: (916) 653-6173 Debbie.ODonoghue@sos.ca.gov

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## **VOLUME 2 – BUDGET PROPOSAL AND JUSTIFICATION**

## I. Itemized Budget

The following budget proposal and justification describes the overall California Online Voter Registration Project (COVR) Project, including the Secretary of State (SOS), the Department of Motor Vehicles (DMV), and the DMV consultant budget proposals. The overall budget for the COVR Project is \$468,522.20.

As required by the Federal Voting Assistance Program (FVAP) grant notice, the SOS has prepared and submitted a SF 424 budget form for the SOS, the DMV and the DMV's consultant. In addition, the SOS and DMV have prepared the attached spreadsheets to help describe the proposed budget.

The justification of the proposed DMV budget and the DMV consultant budget are included under the section "E. Subcontracts/Subawards" and section "F. Consultants" below.

## A. Direct Labor

The attached spreadsheets contain a high level description of the technical tasks and the hours of work by staff person for those tasks.

## **B.** Administrative and Clerical Labor

The proposed budget does not include a request for FVAP funding to cover administrative and clerical labor as this project does not require an extensive amount of administrative or clerical support significantly greater than routine levels of support.

## C. Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.)

The SOS has a <u>benefits</u> rate of 41% of the total SOS direct labor costs of \$64,901.30, which is \$26,609.53. Therefore, the total labor costs, including benefits, are \$91,510.83, as shown on the attached spreadsheet. The SOS has a federal government indirect cost rate of 68%, approved by the federal Election Assistance Commission, which (as applied to \$91,510.83) equals \$62,277.37.

The DMV has a <u>benefits</u> rate of 49.06% and an indirect cost rate, approved by the California Department of Finance, of 20.88%.

## **D.** Travel

The proposed budget does not include a request for FVAP funding for travel costs. No travel is required for completion of the COVR Project.

#### E. Subcontracts/Sub Awards: California Department of Motor Vehicles (DMV)

The COVR Project is designed to allow military and overseas citizens (and the public) to register to vote online and have digitized signatures on file with the DMV transferred to the SOS for voter registration purposes. The SOS will send an electronic request with specific data to the DMV in order to request the digitized signature. SOS will bundle the requests from the 58 counties and send a signature request file to DMV. SOS will label each request with a globally unique identifier (GUID) and the affiants' Driver License or Identification Card number (DL/ID). DMV will send the request file to the DL/ID Photo Vendor to retrieve the digitized signature. DL/ID Photo Vendor will retrieve the digitized signatures using DL/ID number and first three positions of the last name. DL/ID Photo Vendor will return the signature request file to DMV. DMV will place the file at OTECH for SOS to retrieve.

The DMV will develop its system to provide the following:

- All transmissions of data and digitized signatures will be through a secure transfer file protocol (SFTP).
- Service for signature requests between 21,000 and 120, 000 per bundle.

## F. Consultants: Consultant to DMV

The proposed budget includes a request for FVAP funding for the DMV to hire a consultant. Due to the expedited schedule for completion ahead of the 2012 Presidential Election, the DMV will hire a consultant to augment in-house staff resources. The DMV proposes a consulting contract of \$132,000 to provide a total of 1,056 hours at \$125 per hour.

The DMV's consultant will assist with programming development and system testing needs. The consultant will also document workflow and network architecture; assist with developing a specifications document and test plan; develop use cases; and transfer skills to the DMV for ongoing system maintenance.

Under state law, the DMV must first solicit bids before entering into a consulting agreement. If the SOS is awarded an FVAP grant for the COVR Project, the DMV will begin the bid process to hire a consultant. The bid process can take approximately 30 days. Therefore, the SOS will provide FVAP the signed Consulting Agreement and supporting documentation, including a copy of the consultant's statement of work, upon execution of the consulting agreement.

## G. Materials and Supplies

The proposed budget does not include a request for FVAP funding for materials and supply costs. The SOS will pay from its own funds for any materials and supplies required for completion of the COVR Project.

#### **H.** Other Direct Costs

The proposed budget includes a request for FVAP funding for user fees the DMV will incur in development and deployment of the COVR Project. First, the DMV will incur a one-time increased user fee for the increase in data storage volume associated with this project with the California Office of Technology. Second, the DMV will incur an increased data processing user fee for the increase in data volume to be processed. Ongoing user fees in future years will be covered with existing resources, not FVAP funding.

#### II. Budget Justification: Return on Investment (ROI) Analysis

#### **ROI Specific to UOCAVA Voters**

Federal law requires UOCAVA voters to register as special absentee voters every two years, which requires using the paper-based Federal Post Card Application (FPCA) process. Elections officials process FPCA forms received by mail and fax by manually entering data from the FPCA form. There is no automated process for handling FPCA forms. Since most states don't hold off-year statewide elections – and since California does not plan to hold a statewide election in 2011 – the SOS begins with the presumption that virtually all 90,000 of the currently registered California UOCAVA voters will need to complete an FPCA form in 2012 to be able to vote in the 2012 Presidential Election.

When the COVR Project is complete, UOCAVA voters will be able to register to vote and apply for special absentee status using the SOS online voter registration website, instead of printing, signing and faxing or mailing an FPCA form. UOCAVA voters will also be able to submit a mailing address and method of ballot receipt on the COVR website. The estimated cost per online voter registration once the COVR Project is up and running is less than 10 cents.

California counties currently spend an <u>average</u> of \$2.44 to process (i.e., receive and enter the data into the voter registration database) each state voter registration card (VRC). In some counties, including Los Angeles (\$4.79), the cost of processing each VRC is very high, because election staff must manually enter voter information (name, address, etc.). In other counties, including Orange (\$1.35), the cost is lower because VRCs can be scanned and the data from digital images imported into the voter registration database. The average cost to process the National Mail Voter Registration Form and the FPCA is estimated to be much higher, because no California county has the ability to scan and import data from these forms.

The SOS estimates a net savings of \$2.34 per online registration over the current paper-based voter registration system. This figure is based on the current average county cost of processing state voter registration cards (VRCs), which is \$2.44 per registration, minus the estimated cost of operating the online voter registration system, which is estimated to be less than 10 cents per registration.

Therefore, if 90,000 existing UOCAVA voters register and submit special absentee status requests online instead of on paper in 2012, California counties will save at least **\$210,000** (\$2.34 net savings per registration x 90,000) in the first year of operation of the COVR Project.

The COVR Project is designed to generate higher numbers of UOCAVA registrations than in prior election years, because registering online is quick and easy for anyone with access to a mobile device with Internet capabilities. For every 10,000 additional UOCAVA voters who register online, California will save an additional **\$23,400** (\$2.34 x 10,000).

## ROI Overall for California

FVAP's investment in the COVR project will benefit all California voters, not just UOCAVA voters, because the online voter registration website will be open to the public. Therefore, a more accurate ROI can be calculated using the total number of online voter registrations expected in California in 2012 and beyond.

During the 2008 Presidential Election, California counties processed at least 4 million VRCs. This figure is based on the SOS's biennial report to the Election Assistance Commission (EAC), which shows counties received more than 8 million VRCs during 2008-2009. If a similar number of voter registrations (4 million) are submitted during the 2012 Presidential Election, and just 25% of those new registrations are done online, then 1 million registrations will be processed online instead of on paper, creating a total **county savings of \$2,340,000 in 2012 alone** (1,000,000 registrations x \$2.34).

In addition, the COVR project will create <u>additional</u> cost savings of 51 cents per online registration in printing and postage cost savings. This figure is over and above the estimated \$2.34 in processing cost savings per online registration. California spends 7 cents print each VRC on special card stock and 44 cents each time a voter submits a VRC by mail, because each VRC contains a pre-paid first class postage stamp. Conservatively speaking, the SOS expects at least 1,000,000 people to use the COVR website to register to vote in 2012 instead of using a paper VRC. Therefore, the **SOS will save \$510,000 in printing and postage costs in 2012 alone.** 

Overall, the COVR Project is estimated to save California counties \$2,340,000 and the SOS \$2,850,000 in 2012, which creates an ROI on this project during the first year of operation.

# **Technical Proposal**

Catalog of Federal Domestic Assistance (CFDA) Number: 12.217 BAA Number: H98210-FVAP-11-BAA-0001

Title of Proposal:

"Developing Universally Accessible, Secure and Sustainable Balloting Solutions for Chicago's UOCAVA Voters"

<u>CAGE Code</u>: <u>DUNs Number</u>: (b)(4) (b)(4)

<u>Applicant</u>: Chicago Board of Elections <u>Partner Contractor</u>: Everyone Counts

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Period of Performance: Date of Award through December 31, 2012



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#### **Technical Approach and Justification**

#### **Executive Summary**

The Chicago Board of Elections is pleased to submit this application for participation in the Electronic Absentee Systems for Elections (EASE) Grant. We are committed to research, develop, field test and evaluate methods to improve our ability to support our UOCAVA voters. If awarded this grant, we will be able to demonstrate further our use of the latest technologies including a reliable, flexible, and easy-to-use ballot transmission and online marking tool for UOCAVA voters and election administration tools designed to reduce obstacles that UOCAVA voters commonly encounter.

The Chicago Board of Elections is highly committed to ensuring UOCAVA voters are given every opportunity to participate in our democratic process. The Board has a track record of quality service and continuous improvements in that process and has received favorable feedback from UOCAVA voters, who have expressed gratitude for same-day delivery of ballots, whenever possible, via the Internet.

The Chicago Board of Elections has consistently surpassed the 45-day requirement for distributing UOCAVA ballots by delivering ballots 60 days before the election. In the most recent General Election (November 2010), hundreds of UOCAVA voters were the very first voters anywhere in Chicago to cast ballots – ahead of local citizens long before the start of Early Voting and Absentee Voting.

Despite this record, more can be done to improve military and overseas voters' ability to vote. Specifically, we seek to reduce the need to access printers and postal service by increasing the ability to cast ballots via secured fax and Internet services. Increasingly, computer users have ready access to lightweight laptops and mobile devices, but not necessarily printers. Even when there is access to a printer, the voter must then rely on a postal service (USPS, courier service, military, diplomatic, and foreign) for timely return of ballots and other election materials. With many UOCAVA voters serving in remote locations, such as forward operating bases in Afghanistan or at sea, round-trip transit time can take weeks, if not longer.

Individuals deployed at sea may go months without calling at a port and receiving mail. Other voters may be assigned to temporary duty at a location other than their permanent duty station, requiring that postal mail be forwarded, which worsens the transit time. This leads to a likelihood that a voter may be disenfranchised because of inadequate time to receive and return the ballot. This situation is further compounded when issues arise that require the voter and the elections office to communicate to resolve an issue, requiring a second round-trip transit of materials – almost guaranteeing that the voter's ballot cannot be received in time to be counted.

Fortunately, alternatives exist. The omnipresent nature of the Internet provides for use of technology to provide expedited and real-time support for the UOCAVA voter. Even in areas where a printer or postal service is difficult or even non-existent, Internet access is generally available. Technology presents a considerable opportunity for significant progress in the ability to provide timely support to UOCAVA voters, increasing their participation and confidence in elections, and, more importantly, the success rate of those that do participate.

To this end, Chicago welcomes the opportunity to investigate and use technological solutions to overcome the barriers to full and timely participation by the UOCAVA community and provide better tools to the voter, improving the voter experience.

To assist us in this effort, we intend to engage the services of Everyone Counts. Everyone Counts is a firm completely dedicated to the use of technology to improve elections processes. They are 100% US owned and have been in the business of supporting elections since 1997. Everyone Counts had one of the best track records of success in the 2010 election with respect to the use of these advancing technologies.

## Goals and Objectives

The Chicago Board of Elections is applying for this grant to conduct research on behalf of the 8,000 UOCAVA voters the agency traditionally serves in a Presidential Election. Additionally, the Board is applying for this grant in order to provide the UOCAVA voters with a more accessible, secure, and efficient process for requesting absentee registration, ballots, and voting in federal, state, and municipal elections. With the assistance of the EASE grant, this program has a significant impact on our UOCAVA voters' voting experience, all while providing meaningful research data for FVAP now and in future elections over the years.

Specifically, Chicago is addressing each mandate as required by UOCAVA, including easing the registration and absentee ballot sign up process, transmitting the ballot electronically, providing UOCAVA voters with the opportunity to electronically track their ballot, ensuring that ballots are transmitted a full 60 days prior to an election (exceeding the federal requirement of 45 days prior to the election), and, finally, providing reporting on the data collected. Chicago's strategic approach allows this program to be sustainable and scalable, using technological innovation to deliver the best possible solution. We have explored and agreed upon the budget to sustain this program for the next several years.

We are focusing on the following objectives:

- Decrease failure rates that UOCAVA voters experience with the absentee voting process.
- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Develop tools to help election officials improve the handling of UOCAVA ballots and share these results so other jurisdictions may also receive benefit.
- Provide a secure and universally accessible solution that protects the voter and the ballot package.

## The Approach

After accessing their ballot, the voter is provided several options for ballot delivery and return.

## A. Blank Paper Ballot Delivery

- 1. The voter authenticates with the secure ballot delivery interface
- 2. Voter is provided with their correct ballot style
- 3. Ballot is downloaded, along with the associated oath, envelope template, and return instructions, as required by Illinois Law
- 4. Voter marks and completes ballot by hand

- 5. Voter signs the oath
  - a. Voter returns the ballot package by one of the following methods
  - b. Postal Service
  - c. Licensed courier (such as FedEx or DHL)
  - d. Through diplomatic mail from a U.S. embassy or consulate
  - e. FAX (Although FAX has been allowed under a federal court order in a previous special election, this would require changes in state law that the Election Board would need to seek through the General Assembly and the Governor's Office.)
  - f. Scanned and Electronically Mailed PDF (This would require changes in state law that the Election Board would need to seek through the General Assembly and the Governor's Office.)

#### B. Online Ballot Marking

- 1. The voter authenticates with the secure ballot delivery interface
- 2. Voter is provided with their correct ballot style
- 3. Voter marks and completes the ballot online (This would require changes in state law that the Election Board would need to seek through the General Assembly and the Governor's Office.)
- 4. Voter choices are rendered on the ballot as a digital, 2D bar code (This would require changes in state law that the Election Board would need to seek through the General Assembly and the Governor's Office.)
- At this point, the voter has the option to download the ballot and other material or have the ballot delivery system email the ballot and supporting material to the election office. (This would require changes in state law that the Election Board would need to seek through the General Assembly and the Governor's Office.)

Download, Sign and Return	Electronically Sign and Return			
<ol> <li>Bar coded ballot is downloaded, along with associated oath, envelope template, and return instructions</li> <li>Voter signs oath</li> <li>Voter returns ballot package in one of the following methods         <ul> <li>a. Postal Service</li> <li>b. Licensed courier</li> <li>c. Diplomatic mail</li> <li>d. FAX*</li> <li>e. Scanned and emailed PDF*</li> </ul> </li> <li>* Would require changes in state law for pilot program.</li> </ol>	<ol> <li>Voter uploads an image of their signature to the ballot delivery system*</li> <li>Ballot delivery system affixes the signature to the oath*</li> <li>Provide opportunity for voter to review the ballot, as well as the oath with their affixed signature*</li> <li>Ballot delivery system emails the ballot, along with the signed oath to the elections office on behalf of the voter using the voter's email address as the "From" address.*</li> <li>* Would require changes in state law for pilot program.</li> </ol>			

## C. Delivery Options

## D. Email Encryption

If the voter chooses to have the ballot delivery system email their ballot, encrypted, electronic mail services will be used between the ballot delivery system and the elections office. This secure method of electronic mail delivery addresses a threat identified in NISTIR 7551 (A Threat Analysis on UOCAVA Voting Systems).

## E. Automated Ballot Duplication

Ballots produced by the ballot delivery system contain a 2D bar code that consists of the ballot style, precinct, and the voter's preferences. This bar code provides an effective and efficient means of duplicating a non-machine readable ballot to a tabulation ready ballot produced by a ballot on demand system.

With this capability, Chicago could streamline its system to avoid the duplication of thousands of returned ballots if Chicago achieves the goals for significant growth in participation by UOCAVA voters. The bar code contains no personal identifying information. Owners of some smart phones with the appropriate computer application can inspect the bar code to verify personal identifying information is not contained in the bar code.

Over time and subject to overcoming legislative, certification, and technological challenges, we will pursue additional methods to support the duplication of ballots. We will investigate the upload of bar code data into the certified tabulation system using the same memory card technology used for transfer of voting data from Direct-Recording Electronic voting machines (DREs). This will avoid the use of duplicated paper ballots when used with a 2D bar code, further increasing the efficiency of the process.

## F. Return Envelope Tracking

The envelope template contains a bar code with the voter's unique ID. This bar code enables identification of the voter when the ballot envelope is scanned by the sorter when received, flagging the voter in the voter registration system as having returned the ballot.

## G. Accessibility

The ballot delivery system is required to be both Section 508 (ADA) and Section 203 (alternative languages) compliant. An additional benefit of the solution we have chosen is that we will be able to explore the possible deployment of such systems to serve voters with disabilities – in addition to the UOCAVA community. With enabling legislation, such a system could afford voters with disabilities even greater capacity to vote privately and independently by marking an on-line ballot more easily than marking a standard absentee ballot and without the need to cast a ballot in person at an Early Voting site or an Election Day polling place.

## H. Integration with existing EMS Systems

The ballot delivery system is required to be compatible with our election management system to reduce the complexity of transferring ballot definition information to the ballot delivery system in preparation for the election.

## I. Voter Authentication

To validate the authentication of voters, and to ensure that all voters receive the correct ballot style, each voter will be required to log on using distinct credentials. Authentication will be

accomplished by the voter entering their first name, last name, and other yet to be determined information that will uniquely identify the voter.

In Chicago, the voter's signature and oath are submitted with each ballot. The signature is considered the authoritative authentication of the voter when the ballot is returned for processing. However, authentication of the voter in the ballot delivery system is required to ensure the correct ballot style is provided to the voter.

In the event that the voter is unable to be located in the voter registration database, they will be asked for their address to determine the appropriate ballot style.

Chicago will provide the vendor, Everyone Counts, with an extract of their voter registration database. Initially this will be accomplished with a flat file export, which will be periodically reexported for the purposes of updating on-going registration activity. As this research project progresses, we will investigate and, if appropriate, implement a more real-time web servicesbased integration, reducing hands-on efforts.

#### J. Real-time VRDB Authentication

As a part of our ongoing research, we will evaluate options for voters who are not found in the Chicago Board of Elections' database to be located utilizing a direct link to Illinois Voter Registration System (IVRS). This would provide maximum flexibility for voters who believe they are registered in a particular jurisdiction when they are, in fact, registered in a different jurisdiction. Once located within the IVRS, the voter can then be redirected to the jurisdiction of their registration. This integration will likely be late in the grant cycle.

#### K. Election Administration Efficiencies and Common Data Formats

As part of our research, we have chosen to experiment with solutions that could drive down the ongoing cost of the administration of serving UOCAVA voters, while increasing accuracy of the UOCAVA ballots, reducing the potential for human error and serving more voters with their full ballot. Additionally, because this effort will implement Common Data Format, it will make integration of eLect independent of different EMS and voter registration systems.

#### eLect Administration Wizard - Phase 1

This functionality would provide the ability for Chicago to build their own ballots through an online wizard vs. contracting with an outside vendor (in this case, Everyone Counts) to produce UOCAVA ballots. By selecting this module, the per election administrative fees associated with this activity – and the ongoing per election fees beyond 2012 – could be eliminated and election administration would be streamlined and managed by the Chicago Board of Elections.

#### eLect Administration Wizard – Phase 2

In this phase of the technology rollout, the wizard would be integrated with Chicago's EMS and Voter Registration Databases using Common Data Format. Everyone Counts will enhance the wizard for ballot building by allowing for the automated export of data into the eLect Administration tools. This second phase delivers a fully integrated module between the Chicago Board of Elections, all databases used in administering the election and Everyone Counts. This solution also supports the common data format project being sponsored by FVAP.

## L. Online Voter Registration

Chicago provides the ability to register on line through a PDF that can be completed using a computer keyboard and then printed out for a "wet" signature. We plan to research options to further enhance these tools to facilitate voter registration. This may include integration with the ballot delivery system to provide all potential UOCAVA voters the ability to register over the Internet. Additionally, we will pursue a "registration launch" system where the voter would not need access to a printer. Whether on a laptop or a handheld device, the user would be able to enter the voter registration data to launch the mailing of a card to the voter that the voter then could sign and return to complete the registration process. The complete ballot delivery system will also support the completion of the Federal Post Card Application (FPCA).

## M. Integration with existing online systems

The Board of Elections would work to integrate any and all online solutions with the existing database for logging the receipt of ballot applications, the emailing or mailing of ballots, and the receipt of returned ballots – as well as logging the status of each UOCAVA ballot application and the receipt of the returned ballot on the Internet so that the voter may verify the status of his or her application and the receipt of the returned ballot.

#### N. Voter Outreach

Chicago will also look to improve our ability to provide outreach to our UOCAVA community. We intend to use tools and services provided by Everyone Counts to facilitate messaging to UOCAVA voters, options include SMS text messaging, email, and other methods. This messaging capability will allow us to be proactive in communicating with voters. Example scenarios of possible uses include:

- From a list of past UOCAVA voters, the Board can issue reminders to those who have not yet applied for their ballots or not yet returned their ballot close to the election deadline.
- Encouraging voters to vote early, helping manage system load

## O. Mobile Kiosks

Our vendor has a kiosk solution that they are developing and testing that allows a means of setting up a "voting center" type environment that could be used in areas where there is a concentration of voters (such as a military hospital) or where a unit may be deployed and unavailable during the election period (such as a submarine). We have been invited to facilitate some level of applied research with these tools.

#### P. Help Systems

Although the exact method of implementation remains to be determined, we will implement a robust suite of help features using the resources of both the vendor and our election team. This would include:

- 24/7 email and telephone support during the entire voting period
- Online chat support
- Context-specific help and FAQ's

It is expected that the vendor would handle technical issues related to the site, as well as afterhours calls, and that the Chicago Board of Elections would handle business hour inquiries for election-related items.

## Q. Post-Election Survey to Measure Voter Satisfaction

To provide a means for improving our implementation and to provide FVAP feedback on research completed, we will include an optional survey for voters to complete.

## R. Business Continuity

To ensure that our UOCAVA community is well served by this system at all times, twenty-four hours a day seven days a week, the vendor will be required to have a robust business continuity plan that will ensure the system remains available in the event of failures of primary servers and communications. This includes proper backups of systems and data, alternate sites in the event of failure of the primary site, and redundant hardware and communications.

In addition, a highly secure (physical and technological) environment will be required to ensure the integrity of the voting process. The vendor will be required to have sufficient capacity to survive peak ballot access traffic.

## S. Security

Security of our proposed solution is paramount and will the prime criterion in measuring the effectiveness of our project and a key factor in its continuance after the grant period. All communications between the voters' browser and the server will be secured using a minimum of 256-bit encryption.

If the voter elects to have the ballot delivery system email the ballot back on their behalf, the email shall be sent encrypted using a minimum of 256-bit encryption.

Voter-related data stored on the vendor's system will be encrypted using 2048-bit encryption. The ballot delivery system shall not retain any record of the voters' selections anywhere on the system, including transaction logs, cache, etc., after the voter has exited the system.

The vendor is required to maintain a physically secure facility using the most secure industry standards for threats against communications and malicious file threats (e.g. highly secure firewalls, procedures to protect against denial of service attack, anti-virus and anti-spyware applications, etc.).

## **Evaluation Factors**

## Significance

- Addresses <u>every</u> stage of the voting cycle voter registration, ballot delivery, ballot markup, ballot return, ballot tracking, and challenges after ballot return
- Links to our Online Voter Registration system
- Improves FPCA capability
- Links to resources such as online, tailored voter pamphlet
- Links to enhanced ballot tracking system
- Provides ability for voter to mark up ballot online 24 x 7 anywhere there is Internet
- Allows last minute UOCAVA voters to obtain and return ballots until the absolute legal deadline 10 days prior to Election Day
- Provides option for the voter to have the ballot delivery system email the ballot on their behalf using encryption

## Sustainable

- Relatively low annual fees. When completed, the administrative wizard would eliminate the need for per election fees.
- As a hosted solution, will not significantly increase load of elections staff
- It is anticipated that savings and efficiencies realized from implementation of this system will minimize impact of ongoing costs.
- Ability to provide universal access to the ballot by leveraging the capabilities implemented for UOCAVA voters to assist voters with disabilities.

## Impact

- All UOCAVA voters will be eligible to use proposed system.
- Current UOCAVA registration for a Presidential Election year is approximately 8,000. We anticipate a significant increase as we prepare for the 2012 elections.
- Should other counties wish to join our efforts we have identified a scalable and cost effective model for them to participate
- To the degree that enabling legislation passes at the state or federal levels, the features of this proposal also would offer the capacity to improve our service to voters with disabilities, as well as voters with last minute requests for replacement ballots
- The Board of Election Commissioners is scheduled to conduct two elections the General Primary in March and the General Election in November in calendar year 2012.
- Anticipate the Board of Election Commissioners will seek to double the UOCAVA return-ballot rate with the use of this system, and the increased voter outreach will further increase participation in out-years

## Strategic Approach

- Overall comprehensive, multi-pronged solution that allows the voter a choice of ways to receive and return their ballot
- Allows for real-time capability of the Internet to overcome inherent issues with movement of ballots and other materials via a constrained postal system
- Provides access to ballots 24x7 anywhere there is the capability to connect to the Internet
- Testing of several new concepts (such as CAC card authentication and encrypted email return of ballots) that could allow better integrity of the process
- Tests new capability to improve efficiency of processing UOCAVA ballots once received in the elections office through use of 2D bar code technology
- Improves ability to assist UOCAVA voters with previously under-emphasized issue of challenged ballots, which might otherwise go uncounted

## Innovation

- Automated ballot duplication; that is, the ability to translate ballots not compatible with tabulation equipment to tabulation ready ballot using 2D bar-code
- Development of a capability to store data in 2D bar codes to memory cards for direct upload into tabulation system bypassing scanning of ballots
- Use of Common Data Format for integration between eLect solutions, EMS, voter registration systems, and other databases makes eLect more agnostic to other vendor products.
- Option for voter to upload signature image and have the ballot delivery system and attach to FPCA and email FPCA on behalf of the voter using encrypted email (future)

- 24 x 7 capability of obtaining replacement ballot rather than business hours only
- Kiosks remote voting stations
- Use of messaging capabilities for voter outreach

#### Scalability

- The capabilities developed in this effort can be extended to any other county with similar legislative requirements and restrictions.
- The design principals proposed by Chicago, along with the vendor Everyone Counts, have taken into account the challenges associated with scaling to accommodate additional voters and functionality.
- Use of 2D bar code technology on ballots will allow elections offices to absorb significant increases in voters using this system without significant impact on staffing for duplication or tabulation of ballots
- Everyone Counts, using the proven design employed within this grant, has conducted large elections electronically in a number of jurisdictions without any scalability issues
  - o Australia March 2011 50,000 Voters
  - Honolulu May 2011 18,000 Voters
  - National Student Parent Mock Election 2004 hosted 4 million voters on one day

#### Collaborative

• The design of our proposed implementation is such that it should be usable by any other jurisdiction that does not have more restrictive statutes.

#### Cost Benefit Analysis

A traditional cost-benefit analysis normally compares costs and savings. It is important to note that in efforts like this, benefits are often more qualitative than quantitative. In fact, some of the features discussed may increase costs slightly, but when balanced against the improved service to our UOCAVA voters, are worth the costs.

The second important note is that for the most part, features and capabilities proposed in this application are not priced separately, but part of a single license fee/maintenance fee from the partner vendor. The only other costs are per election costs, again for the use of the entire package with costs not broken out by function/capability.

Benefits from use of this system are detailed in depth in the Evaluation Factors subsection above and also in the Performance Indicators, Projections, and Performance Measures subsection under the Management Approach. Costs are detailed in the Budget Section.

<u>Schedule and Milestones</u> The following milestones will be used for each election during the EASE grant time period:

- Kickoff Meeting the first meeting after the contract has been awarded, during which team members are introduced, stakeholders documented, and key election project properties defined. Regular communications plan will also be defined.
- **Finalize full project scope** and detailed requirements. To include measurable objectives by project deliverable.
- Active Project Management Cycle including delivery of components for user acceptance testing and release.
- Data Delivery Chicago provides vendor with data
- Election Logic and Accuracy Testing the completion of client User Acceptance Testing, after which the election is locked for voters
- Election Go Live the first day when voters can vote in the online election (a minimum of 45 days before Primary and 60 days before the General Election).
- Election Close the final day of voting in the election. No further voting activity. Site remains active for ballot tracking and challenge resolution activity.
- Election Certification In general, the proclamation of official results occurs 21 days after the Primary Election and 21 days after the General Election.
- Reporting Upon issuance of final proclamation, the research data will be aggregated and the final report will be written. Reports are available on-demand at anytime during the election to authorized individuals

The following is a sample Gantt chart for one election.

5 1				tul Aun San	Oct Nev Dec	Inn Fab Use	2nd Quar
2	Color Legand			an wool seb	OCI NOV DEC	DER FOR MER	Ab weak
	Client Task						
3	Project Phase Begin					l.	
4	Milestone		-	1			
5	- 2013 General Election	8/1/11	1/31/12				1
2	Contract Awarded	5/1/11	8/011	⊕ 801			
7	- Initiation	8/8/11	8/18/11	<b>W</b>		I	1
8	Kickoff Vetting	8/8/11	8/8/11	Client,	veryone Cour	rts	÷
9	Job Specification Calle	8/9/11	8/9/11	ີ: Kັ∈≋enti	eryone Cour	its	1
10	Implementation Plan	8/10/11	8/10/15	Every	one Counts		Ť
11	Project Plan	8/17/11	8/17/11	Every	one Counts	!	1
12	- Build	8/29/11	9/5/11	99		ŧ	
13	Client Delivers Draft Ballot Data	8/29/11	8/29/11	8/2	٥	/	1
1-	Client Delivera initial Voter Registration Data	8/29/11	8/29/11	3/2	9		9
15	Orafi Election Built	8/29/11	9/2/11	BEVE	ryone Counts		
15	Braft Voter Registration Gredentials Loaded	9/5/11	9/5/11	F Ev	eryone Counts	6	2
17	- Test	9-6/11	9/21/11	99			1
18.	Everyone Counts Testing and Review	\$45/11	9/13/11	. Č1	veryone Coun	i,s	8
19	Voter Registration Detabase to Everyone Counts	9/13/11	9/13/11	4	8/13		
20	Client Testing and Review	9/14/11	9/20/11	a d	Chent	!	1
21	Election Logic and Accuracy Testing	9/21/11	9/21/11	ĥ	Ctlent.Everyor	e Counts	
22	Election Locked for Voters	9/21/11	9/21/11	. 4	9/21	!	1
23	- Election	9/24 11	11/8/11	Ģ			
24	Election Goes Live	9/24/14	11/8/11	li 4	9/24		1
25	Scheduled Voter Registration Database Releases	9/24/11	11/8/11	0	Chent		
26	Scheduled Voter Registration Database Updates	9/24/11	15/8/11	6	Everyc	ne Counts	1
27	Election Maintenance and Reporting	9/24/11	11/8/11	6		ine Counts	
28	Election Closes	11/8/11	11/8/11	18	÷1/8	I	1
28	- Report	11/8/11	11/15/11		-		
30	Final Report, including Measurement against Strategic Goals and Leasons Learned	11/3/11	11/15/11		C Every	one Counts	1
31	- Post Election Support	11/8/11	1/31/12		4	>	1
32	Election Remains Functional and Available in case of recounta or audits	11/8/11	1.31/72		-	Everyor	ne Counts
32	Certification of Election Results	11/29/11	11/29/11		🔶 ††	29	1

## **Reports**

Comprehensive reporting will be implemented to monitor and provide analytical tools for all portions of the election management process. This is facilitated by having reports in the following areas:

- On-Demand Reporting Interface
- Logging of Systems Activity (for further analysis)
  - Real-time staffing and process planning by election office
  - Post-Election Analysis of Activity
  - System performance and issue
- Voter Surveys
- Customer Service and Help Desk Log Reports and Analysis
- Project Management Milestone Reporting
- Post-election reports
- UOCAVA Voter available tracking interface

This section is based on currently available reports in Everyone Counts' product suite. During the project planning and implementation phase, additional reports may be requested of the vendor. Experience gained through use in actual elections may also drive additional reports to meet the needs of other counties or to satisfy FVAP research needs.

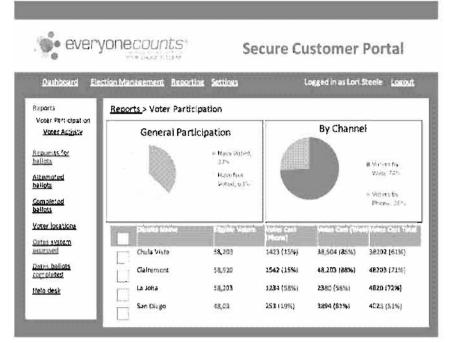
## **On-Demand Reporting Interface**

An on-demand reporting interface will provide real-time access to information regarding the activity of all running elections

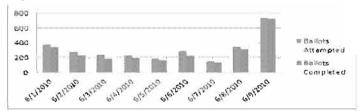
## Reports Provided

- Voter Activity: The Voter Activity Report provides insight into system use. This includes:
  - Voting Activity / Hour
  - Voting Activity / Day
  - Total Voting Activity (within date range)
- Voter Participation: This report provides
  - Turnout by District/Ballot Style
  - Other as determined by Chicago Board of Elections and FVAP
- Voter Locations: Report showing the source location of voting activity. Reports are based on the IP address, and
  - Source City, ie: Los Angeles, United States
  - Source Domain, ie: .mil, .gov

## **On-demand Reporting Interface**



**Ballots Attempted/Completed** 



Typically, the graph spikes around the time of notification emails and reminders.

#### Voter Location Report

Country	City	Date	Logins
United States	New York	6/1/2010	377
United States	Los Angeles	6/1/2010	281
Canada	Toronto	6/1/2010	234
Great Britain	London	6/1/2010	228
France	Paris	6/1/2010	182
Germany	Berlin	6/1/2010	288
Canada	Ontario	6/1/2010	182

Japan	Tokyo	6/1/2010	178
		Total	2862

## Data Logging

Everyone Counts uses event logs to archive all administrative and user access within the voting system. No logged data will ever associate a voter with the preferences they have marked on any ballot, ensuring voter privacy.

The following information is logged:

Access Period	This field refers to the period of the election and is customizable. Typically each election has three primary states: Content Review, L&A, and Live. All summary reports provided shall utilize data acquired during the "Live" period		
Time (TimeZone)	This field is the server Date/Time stamp when the event occurred		
Time (System Time)	his field is the Coordinated Universal Time, UTC, represented in OSIX Time		
SessionID	This field is a browser session hash and is the unique identifier for all voters accessing the system		
Event	<ul> <li>This field represents the variety of events logged during each election:</li> <li>User Login</li> <li>User Logout</li> <li>Ballot Accessed</li> <li>Ballot Printed</li> <li>Ballot Submitted (where available)</li> </ul>		
IP Address	This field is either the standard four-part IP address or optionally a hash of the IP Address, intended to ensure voter privacy IP addresses can be used to identify the city of the user that is voting from.		

Access Period	Time (Canada/Pacific)	Time (System Seconds)	SessionID	IP Address	Event
Live	19-04-2010 09:06:29	1271693189	817e203e135bad14dc1cbde203bed87f	207.229.6.250	User login
Live	19-04-2010 09:09:00	1271693340	3200d91b5f9f77526db200a130762ad3	68.147.223.212	User login
Live	19-04-2010 09:09:46	1271693386	a41b590c0dbf2c311acc28fcc72b871d	208.97.113.34	User login
Live	19-04-2010 09:12:19	1271693539	112819fc8deb4f19fb056d1aa7c790c4	203.18.176.243	User login
Live	19-04-2010 09:15:05	1271693705	4e00ed4ea30e952f88e20aedf54de867	208.80.96.57	User login
Live	19-04-2010 09:15:16	1271693716	b742efff2b14d9cb2394352c25dca8cf	74.198.12.3	User login
Live	19-04-2010 09:17:15	1271693835	176ce37d032ed935a598de4d4261365f	64.39.171.41	User login
Live	19-04-2010 09:18:42	1271693922	c438782c27a8297c22df6d4c5269df17	199.212.48.2	User login
Live	19-04-2010 09:19:57	1271693997	7cddb3a3633a02cc652c2dbc2119c80d	68.179.94.250	User login
Live	19-04-2010 09:21:16	1271694076	b27d56e7c48a4059cc975dbf1a400eaf	96.49.111.135	User login

#### Data Sample of Logs

The data sample above represents the first 10 logins during a Live Access Period opening at 9am.

#### Data Analysis

Upon the conclusion of all elections, data will be analyzed to measure the effectiveness of each election.

## FPCA Signup Activity

Reports will be provided to Election Administrators showing signup activity and adoption rate of online-based FPCA sign ups.

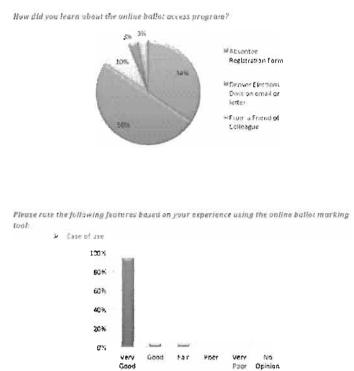
#### **UOCAVA Voter-Accessible Tracking of Ballot**

Each voter has the ability to log into the state or county ballot tracking tools to access all available information regarding their ballot. Additionally a voter may be provided with a distinct receipt code at the end of the ballot marking process that may used to ensure their ballot was received by the county. Tracking information includes:

- Ballot accessed
- Ballot printed
- Ballot in-Transit
- Ballot received by County
- Ballot available for tabulation

#### Voter Satisfaction Surveys

As a part of each election, voters are asked to complete a voluntary customer survey. These questions are collated and a report generated for each. Below are <u>example</u> questions with associated responses. We will be developing further questions to assist us in improving our UOCAVA operations.



#### Additionally, free-form questions will be asked, and all responses collated for analysis.

Fleuse provide any additional comments on the online ballat marking tool below.

- This is definitely a great system. Thank you.
- Seems like a great improvement over the previous mall in ballots. I have received mall in ballots In the past after the election date. This is an improvement, though I still received the mall in ballot by regular mail along with Instructions on how to vote online. Seems like it might have been faster/cheaper/easter to receive electronic notification rather than regular mall.
- This is by far the easiest way for me to vote as an absentee voter. Fax, email, and mall ballots are all possible but very difficult to complete. This online voting process is easy, keep using and improving it!
- This (online voting) is great. I feel like my vote will be counted without relying on 2 postal systems. Plus it cuts down on paper, which is always a plus.
- None
- I appreciate the ability to still cast my ballot as an American temporarily living overseas. I always fett my mail in ballot never was counted & worried it would not make it in time. I feel my vote will be counted on the day of the election using this method.
- Much more convenient than faxing.
- get out the Online Votel No one knew this was possible until 1 got my piece of paper and posted it on Facebook. Thank you Amanda Hill for Att, of your help!

#### Help Desk Statistics

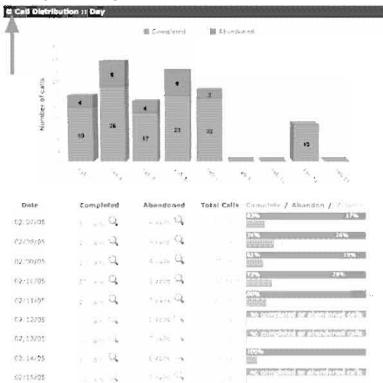
Help desk reports provide the following analysis of the amount of activity and usage of help desk systems throughout an election. Help desk reports provided include:

- E-Mail / Chat / Call Distribution
  - Average Hold Time / Delay for Response
  - Number of Calls
    - By Day
    - By Hour
  - Abandonment Rate
- Symptom Analysis
  - Symptom causing inbound support request
  - Solution Provided

## Symptom Analysis Example

Symptom	Resolution	Count
Could Not Login to Voting System	Reset Credentials	38
Forgot Voting System URL	Re-sent URL to Voter	17
Signup Request	Signup user	9
Questions about online voting	Provide documentation	3

#### Support Distribution Report Example



#### **Regression Analysis of Log Data**

At the conclusion of each election, all anonymous log data is analyzed for meaningful data to further the research associated with online voting systems. Intelligence is extracted in the following key areas:

- Peak Voter Activity
- Time to complete ballots
  - Time to complete contest (based on length)
- Preferred method of voting
- Number of errors warned
  - Number of errors corrected

#### Messaging

Reporting included with eLect Notify (email notifications)

- Message Open Rate
- Message Click-Through Rate (if links are included in the message)
- Unsubscribe Rate
- Bounce Report

#### **Project Management Reports**

Regular reports on project management milestones, as well as reports regarding financial progress of the project, will be provided to FVAP as key milestones are reached. These reports will address the successes, challenges, and barriers of the implementation and its use.

#### Management Approach

Chicago will be focused on the core requirements for UOCAVA voters, including easing the registration and absentee ballot sign up process, transmitting the ballot electronically, providing UOCAVA voters with the opportunity to electronically track their ballot, ensuring that ballots are transmitted a full 45 days prior to a Primary Election (60 days prior to a General Election), and, finally, providing reporting on the data collected. Chicago's strategic approach allows this program to be sustainable and scalable, using technological innovation to deliver the best possible solution.

We are focusing on the following objectives:

- Decrease failure rates that UOCAVA voters experience with the absentee voting process.
- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Develop tools to help election officials improve the handling of UOCAVA ballots and share these results so other jurisdictions may also receive benefit.
- Provide a secure and universally accessible solution that protects the voter and the ballot package.

#### Current Process

Chicago receives voter registration requests from UOCAVA voters in several different ways paper forms mailed to our offices, emailed inquiries, the state voter registration system, and the Federal Post Card Application (FPCA). Although not as prevalent, we also receive few registrations via the Federal Write-in Absentee Ballot (FWAB).

All active UOCAVA voters are emailed a pdf of the paper ballot 45 days in advance of primary and 60 days before general elections. UOCAVA voters who have requested email ballots (either one time or permanent) will be emailed ballots and instruction at the same time paper ballots are mailed. UOCAVA voters can call, email, or FAX requests for an email ballot anytime up to 10 days before Election Day. (After that deadline, the Chicago Board of Elections responds to inquiries with FWAB materials.)

UOCAVA voters have several options for returning their voted ballot to the elections office. They can mail the paper ballot, email the ballot, or FAX the ballot.

Ballots with problems (e.g. oath not signed, signatures on oath does not match signature on file, etc.) are challenged and every attempt is made to contact the voter to resolve the issue through letters, email (if an email address is on file), and telephone. Unfortunately, many UOCAVA voters cannot be reached in time, due to their remote locations.

#### Justification for modification of current processes

The current process is too reliant on a delivery service (postal service) that takes too long to deliver the ballots (or registration requests) both to and from the UOCAVA voter. The current process of emailing ballots also is reliant on the UOCAVA voter having ready access to a printer to be able to print the ballot before marking it and returning it by mail. Additionally, the transient nature of many UOCAVA voters means that additional delivery time is required to

forward the ballot to the voters' actual location. This is particularly true of deployed military personnel.

Many UOCAVA voters do not keep their mailing address current with the election office resulting in mail never delivered or delayed even further by forwarding. Nationally, FVAP estimates that 17% of military voters never receive their ballots. Use of the Internet allows the voter access to their ballot and a means of voting anywhere there is access to the Internet anytime after 45 days prior to the Primary Election, 60 days before the General Election. Additionally, email addresses have a higher likelihood of remaining current than physical mailing addresses. Even if the physical or email address is no longer current, an interested UOCAVA voter can proactively access their ballot twenty-four hours a day, seven days a week through our partner's (Everyone Counts) services by going through the links available on the FVAP web site.

The UOCAVA voter can immediately return their ballot electronically via several means. A process that previously took several weeks or longer can now be completed and in the election office in an hour, as early as 45 days prior to the Primary Election and 60 days prior to the General Election – and then continuing through 10 days before Election Day.

#### Proposed processes

To facilitate voter absentee registration, we will use Everyone Counts' eLect Platform to provide a link to the Chicago Board of Elections voter registration system where the voter can provide the required information electronically. Alternatively, voters can continue to complete a FPCA electronically and either print, sign and mail the FPCA to the elections office, or upload a signature and have Everyone Counts deliver it to the appropriate county's election office electronically. The FPCA creates a registration in cases where none currently exists. The Board of Election Commissioners then needs the signed and completed form, with the last residential address, to be submitted.

Forty-five days prior to the Primary Election (60 days prior to the General Election), UOCAVA voters will be able to access their ballot through Everyone Counts' eLect Today product. Through the authentication process, they will receive the proper ballot for their registered address. The voter will then have several choices regarding voting and returning their ballot

1) Print a blank ballot, cast their ballot by hand, sign the oath, and mail the paper ballot and oath to the election office by postal service;

2) Use the online wizard to cast their ballot; download the cast ballot, oath, and other materials; sign the oath; and mail the paper ballot and oath to the election office by postal service, a licensed courier/motor service, or through diplomatic mail;

3) If state law can be amended to allow for a pilot program, use the online wizard to cast their ballot, download the cast ballot, oath, and other materials, sign the oath, attach the ballot and oath to an email, and email or FAX the packet to the election office; or

4) If state law can be amended to allow for a pilot program, use the online wizard to cast their ballot, upload their signature to eLect Today, eLect Today attaches their signature to the oath, eLect Today attaches ballot and oath to an email, and eLect Today emails packet to the election office using voter's email address (This feature is an enhancement to be developed).

eLect Today will print a 2D bar code on cast ballots with the voter's choices embedded, as well as the precinct and ballot style. (Important note: No personal identification information will be included in the bar code, which can be verified using some smart phone apps.)

When ballots are received at the elections office, the elections office will use eLect Transcriber to auto duplicate ballots received into tabulation ready ballots using the 2D bar code. This auto duplication process will save staff hours for handling the increased number of UOCAVA ballots generated by this proposal. A future enhancement we are planning is to develop a means of storing the voter's choices on a memory card (similar to current DRE process), which would be used to upload into the tabulation system, further improving the efficiency of the process.

We intend on using Everyone Counts' eLect Notify product to improve outreach and communications to UOCAVA voters. eLect Notify allows elections officials to send emails or text messages to voters. For instance, this could be used to notify a voter that there was an issue with their ballot (e.g. forgot to sign) or to warn voters that had not yet returned a ballot and the election date was fast approaching.

Using Everyone Counts' eLect Platform, we will provide access to various county and state reference material such as online voter pamphlets and ballot tracking. This will allow UOCAVA voters to obtain additional information about candidates and measures. The ballot tracking features will allow voters to verify that the election office has received their ballot.

Everyone Count is developing a mobile kiosk solution (eLect Mobile) that we intend to test for providing service to concentrated areas of UOCAVA voters, such as at military hospitals or local military bases. We will also provide some level of applied research in polling sites to gain voter feedback on these new tools.

Everyone Counts' application is already tested with our election management systems (EMS) that are used to develop our ballots. As part of this grant, Everyone Counts will be developing an Administrative Wizard using Common Data Format technology to allow election officials the ability perform some of these tasks themselves and eliminate the per election fee, while making the process less dependent on other vendors' products.

Initially voter data will be transferred to Everyone Counts' eLect system by flat file, As the project proceeds, we intend to develop more real-time integration between our voter registration systems and eLect Today to ensure the most up to date information about UOCAVA voters is available. This integration could also pass information back about voters who have voted to assist election officials in their staff and resource planning and to update tracking information.

To protect the integrity of data and enhance the secrecy of the voters' choices, we intend to make maximum use of encryption technology for communication between the voters' browser and eLect Platform, the email transmitted to the election office by eLect Today, and data stored on eLect Platform. If the voter emails the ballot on their own, we will not be able to provide encryption services.

Chicago is committed to continually improving our service to the UOCAVA voter. To facilitate this effort, we intend to make maximum use of the survey tools offered by the eLect Platform to solicit feedback from the UOCAVA voter and identify areas needing improvement.

Many of the features being developed to provide better services to UOCAVA voters will also allow the Board of Election Commissioners to explore and advocate for changes in the law that could better serve other communities of interest, particularly voters with physical challenges. An online system would allow voters to mark a ballot independently using a computer. This offers more independence to blind voters and those with dexterity issues who may be able to use a computer more effectively than a pen with a paper absentee ballot. We expect to be able to do this without increased costs. Efficiencies gained by using these tools with local communities can help offset the per-ballot cost of new services whose initial goal is to enhance ballot access for UOCAVA voters.

Risk	Impact	Prob	Mitigation
Election system vendor is unable to meet the needs of the project on schedule.	high	low	Selected a vendor with a strong track record of success. Manage vendor deliverables with weekly status updates.
Ballot data is finalized with insufficient time to implement online election.	high	high	Integrate online election vendor systems with EMS systems for direct transfer of data. Thorough pre-testing. Timeline same as print vendor.
Will vendor be able to demonstrate system integration with voter registration system?	high	very low	Currently use flat file transfer - well establish method for current processes.
UOCAVA voter registration data changes frequently during the course of the election.	low	med	Link to VRDB. Schedule voter registration database updates to vendor in advance.
UOCAVA voters may not have Internet access.	high	med	Continue current practice of mailing paper ballots for those voters
Tight project timescales mean that delays will lead to missed election go live date.	med	med	Limit features/capabilities implemented first election to current, stable capabilities. Selected vendor that has previously stood-up an election on tight timeline.
Ballots of online election contain errors.	high	low	Audit vendor's quality assurance process. Ensure all acceptance, Logic and Accuracy tests are completed successfully before election go live date.
Project subject to malicious electronic attack	med	med	Work to security based on DCA approved and other standards. Create a detailed business continuity and disaster recovery plan.

#### Risk identification and mitigation

[		1	
Submission of multiple ballots by the same voter.	very Iow	high	Control detection and control of multiple ballots at election office using existing controls
Physical security at data center may be compromised	high	low	Maintain security management measures compliant with SAS 70 Type II[TI1] defined in the data center service level agreement.
Vendor staff may present a security risk to the project	med	low	Require security checks on vendor employees to assess risk of possibility of such occurrences.
Customer demand for the election services might be larger than anticipated.	med	low	Ensure that the technical system is built to cope with the largest possible demands. IT works closely with sales for capacity planning. Automatic monitoring of system configured for notifications 24/7 should system go outside of expected parameters.
Negative news stories about the new voting methods appear in the local press.	med	high	Engage with local press during the voter engagement campaign and provide them with positive stories and photo opportunities to education them about benefits.
Turnout is low impacting research results.	low	low	Strong UOCAVA voter outreach and messaging program starting well before first election.
Culture change issues may generate negative feelings in internal staff and stakeholders working on the project.	high	med	Start internal promotion of the project as soon as possible after contract agreement. Also provide complete visibility of the service development to end users throughout the process.
Risk that the vendor will not maintain leadership position in fast changing industry.	med	low	Selected vendor with strong track record and committed leadership
Risk that CEO and other key leaders may leave company	med	low	Strong succession planning and employee development program. Cross training. Strong process documentation
Some of the technologies may be new to some election staff	med	med	Limit number of new features/capabilities implemented first election. Ensure staff receives relevant training before they employ their skills.

#### Performance Indicators, Projections, and Performance Measures

#### Voter registration

- Increased participation with more readily available electronic access to an online tool, we expect higher percentages of UOCAVA voters will be able to participate and return their ballots.
- Reduced errors if voters are able to enter data electronically directly to the database, transcription errors (e.g. from illegible handwriting) will be reduced.
- Cost savings if voters enter the data themselves, costs for data entry will be reduced. Costs will be further reduced by increased accuracy, reducing the need for follow-up.
- Expect that voter registrations submitted on paper forms (state registration form, FPCA, FWAB) will migrate to online registrations. Forecast that for the 2012 General Election, more voters will register online than use paper.
- Baseline figures for source of registrations:

0	total registrations	State paper form	FPCA/FWAB	online
last 12 months -	7,163	35	7,138	N/A
2008 (presidential	) - 7,966	N/A	7,966	N/A

#### Ballot delivery

- Availability will provide the UOCAVA voter with twenty-four hour, seven day a week access during the 45 day voting period (30 days for Special Elections).
- Ballot Accuracy voter is assured of receiving the correct ballot styles, contests, and candidates specific to their registered address.
- Increased voter participation with a user-friendly tool to assist in voting in a timely manner, expect more UOCAVA voters will exercise their right to vote.
- Guaranteed delivery delivery of ballot guaranteed for UOCAVA voters using eLect Today, whereas ballots sent via postal service may not be delivered due to incorrect addresses, slow service, voter on temporary duty elsewhere, etc.
- Forecast that for the 2012 General Elections the percent of UOCAVA voters obtaining their ballot electronically will double, with that number tripling by 2014.
- Baseline figures for ballots delivered electronically:

3	Cotal LIOCAVA Ballots Issued	Ballots delivered electronically
	olar OOOA YA Danois issued	Danois derivered electromeany
2010 General -	7,163	6,181
2009 Special Election	n - 2,093	1,786
2008 General -	7,966	6,328
2007 Municipal -	819	325
Constant of Constant Action		11

• Statistics for non-delivery of ballots not available locally.

## Ballot return

- Availability will provide the UOCAVA voter access 24 x 7 during the 45 day voting period (30 days for Special Elections).
- Increased voter participation with a user-friendly tool to assist in voting in a timely manner, expect more UOCAVA voters will exercise their right to vote.
- Improved timeliness with the ability for UOCAVA voters to immediately access ballots when they are available (45 days before the Primary Election and 60 days before the General Election), and the potential for UOCAVA voters to be able to cast and return

their ballots without a printer and without waiting for postal service delivery and return, UOCAVA voters will be better able to meet statutory deadlines. This should help significantly reduce and nearly eliminate the prospect of ballots being "returned too late" to be counted.

- Voter errors since eLect Today will prohibit over-votes and warn about under-votes, voter errors will be virtually eliminated. Ballots completed online will eliminate voter intent issues, as stray marks and non-compliant marking of the ballot will be impossible.
- Ballot tracking UOCAVA can track receipt and acceptance of their ballot by the elections office via ballot tracking link.
- Online voter pamphlet UOCAVA voters will have access to comprehensive information about candidates and measures online through links on Everyone Counts' eLect Platform. Currently, UOCAVA voters generally do not receive voter pamphlets because they are frequently not printed before ballots are mailed.
- Figures for accessing the online voter pamphlets and ballot tracking applications are not currently broken out for UOCAVA voters. Everyone Counts will be asked to capture this data for UOCAVA voters accessing these items via their site.
- Baseline figures for UOCAVA voter turnout compared to overall voter turnout:

	<u>All turnout</u>	UOCAVA turnout	UOCAVA "gap"
2007 Municipal General	33.08%	21.98%	33.56%
2008 Presidential General	73.87%	88.46%	N/A
2009 Special Election	10.39%	17.73%	N/A
2010 Gubernatorial/Midterm	52.88%	32.50%	38.54%

- Forecast that there again will be no gap in the 2012 Presidential General Election, but that the UOCAVA participation rates will grow to close the gap currently occurring in many non-Presidential Elections: any 2013 special elections, the gubernatorial "mid-terms" in 2014 and the municipal election in 2015).
- Forecast that all ballots that are delivered, voted and returned electronically will be returned on time.
- Forecast that with use, UOCAVA voters will migrate from printing ballots and mailing them back via postal service, to allowing eLect Today email them back on the voter's behalf. No statistical data currently available for a baseline, but Chicago will track how voters cast their votes and return their ballots (print blank ballot; mark votes electronically, print, mail back; faxed back; emailed back themselves; or eLect Today emails back) after implementation of the project.
  - Goal is that for years 2012-2016, 75% of ballots are returned, whether electronically through secured email or through other means.

#### Auto duplication

• Reduced costs - lower staff costs and time as manual effort is reduced. As an alternative method for the traditional transcribing of ballot preferences from a voter-submitted 2D barcode to a scannable ballot paper, Chicago anticipates scanning 2D barcodes directly to a memory card that is readable by a tabulation machine directly. This streamlined, alternate method of ballot reproduction will significantly reduce ballot reproduction costs.

- Scalable auto duplication allows election offices to absorbed increased UOCAVA participation without significantly increasing ballot processing effort and staff. It also allows election offices to expand the capabilities being developed for the UOCAVA community to other communities, specifically voters with disabilities.
- There is no baseline figure, as duplication of UOCAVA ballots is not currently needed. Performance in this area will be judged by computing what manual duplication would have cost without auto duplication compared to actual costs using auto duplication.

#### **Ballot** challenges

- Improve resolution rate for those participating in the electronic process. Ballots will be returned and processed earlier since ballot round trip transit time is greatly reduced, leaving more time to resolve challenges. With email or mobile phone numbers, UOCAVA voters with challenged ballots can be notified electronically in a timely manner, again leaving more time to resolve.
- Lower incident rate use of the online tool will help reduce challenges in the first place by electronic enforcement of business rules.
- Forecast that the percentage of UOCAVA voters whose ballots are not processed due to unresolved challenges will be cut in half.
- Baseline figures for % of UOCAVA ballots not counted due to unresolved ballot challenges: 20-200 per election

#### Other

- To measure if voters are having problems using the system, we will track the number of individuals that start to use eLect Today, but abandon the process before completion.
- Will also ask Everyone Counts to report and track statistics concerning system reliability and system and application errors encountered.

## Financial Management

This project will include financially-based milestone deliverables. Payment to the vendor will be due upon successful completion of predefined acceptance tests for each milestone.

## <u>Milestones</u>

Milestones are shown in the Technical Approach section above.

## Current and Pending Project Proposal Submissions

The Chicago Board of Elections does not have any current or pending project similar to the one being proposed in this application. The Board is exploring an on-line system to allow voters to launch the registration system from handheld devices and laptops without a printer. The Board also is developing a home page for mobile devices, which would enhance the effectiveness of this grant for UOCAVA voters who may be reliant on mobile devices with Internet access.

## **Qualifications**

#### Vendor partner - Everyone Counts

Our preferred vendor for this program brings 14 years of experience and a track record of proven success with projects of a similar nature. A world leader, Everyone Counts uniquely combines

election and technology expertise to deliver the most reliable, transparent, secure election solutions for all voters.

100% U.S. owned and based in San Diego, California, Everyone Counts, Inc., is uniquely positioned to ensure that our election can successfully combine America's oldest values with its newest technologies. Their mission is to help election officials deliver reliable and cost-effective universal access to the ballot.

Since 1996, the company's core and primary business has been to provide innovative technology solutions in public and private elections through eLect<sup>™</sup>, Everyone Counts' proprietary family of secure and transparent voting solutions. Their clients have included governments, political parties, business groups, corporations, labor unions, associations, and various private organizations. With local elections expertise on six continents and the highest-integrity end-to-end web-based voting solution in the world, Everyone Counts' elections are accessible, accurate, secure, audit-able, and completely transparent.

#### Vendor Partner – Everyone Counts - Examples of Relevant Projects

Customer: State of Utah

Point of Contact: Mark Thomas, State Election Director

Period of Performance: 2010 General Election

**Description of project:** Electronic ballot delivery for Utah 2010 General Election; UOCAVA ballots deployed early and seamlessly, coinciding with existing election processes and FVAP project requirements. Ballot marking solution a "success," says Utah Elections Director Mark Thomas.

Customer: Numerous Counties in West Virginia

Point of Contact: Jackie Harris, Policy Director

Period of Performance: 2010 General Election

**Description of project:** Using secure credentials, UOCAVA voters could access, mark and cast their ballot online. Ballots were accessed and cast using military-grade encryption technology, and were decrypted on-site at the local election office where each voter's marked ballot was printed to be included in the count. 100% of surveyed voters said they would use the system again and 95% found the system very easy to use.

Customer: El Paso County, Colorado

Point of Contact: John Gardner, Chief Deputy and Director of Operations

Period of Performance: 2010 General Election

**Description of project:** When El Paso County's assigned vendor for MOVE Act compliance failed to meet their needs for the 2010 General Election, they turned to Everyone Counts. Having provided online ballot marking for El Paso County's 2010 Primary Election, they knew from experience Everyone Counts could deliver. "Everyone Counts saved the day. We called you on Saturday and four days later you had the election up and available for voters." says John Gardner, Chief Deputy and Director of Operations for El Paso County, Colorado.

Customer: Clackamas County, Oregon

Point of Contact: Sherry Hall, County Clerk

Period of Performance: 2010 General Election

**Description of project:** Clackamas County offered secure transmission of online ballots for UOCAVA voters. Clackamas County Clerk Sherry Hall stated, "It is an honor to be the first County in Oregon to have the privilege of partnering with Everyone Counts in implementing an online tool for Military/Overseas voters. As Clackamas County Clerk, I want to ensure that the

Military/Overseas Vote counts. This system provides a seamless, secure and simplified method to facilitate this process."

#### **Everyone Counts - Management**

Everyone Counts has built a strong team of professionals who are the best at what they do. Their experience in this innovative area of voting is second to none. Everyone Counts is headquartered in San Diego, California and administers elections all over the world. The following individuals will play a key role in the Chicago program.

Lori Steele - Everyone Counts, Inc.- Chief Executive Officer – brings more than 20 years of sound investment management and corporate finance experience to Everyone Counts. In addition, Steele has detailed experience in promoting fair elections and improving voting methods and technologies across the globe. She has built a strong team and led her company to deliver a number of firsts that have enabled innovative voting channels to empower voters, particularly those with access issues and those whose participation rates are low.

Paul DeGregorio - Everyone Counts, Inc.- Chief of Elections – has served in significant policy-making, management, assessment, and training positions for several prominent institutions. In 2006 he served as Chairman of the United States Election Assistance Commission (EAC). As the USA's chief election official, DeGregorio focused on implementing the Help America Vote Act (HAVA) and fostering higher standards for electronic voting, best practices for election officials, and encouraging the use of new technology to serve voters, particularly voters with special needs. From 1993-2003 DeGregorio worked as a technical expert and later as the COO and Executive Vice-President of the International Foundation for Election Systems (IFES). DeGregorio began his career in elections in 1985, when he was appointed Director of Elections for St. Louis County, Missouri.

**Aaron Contorer - Everyone Counts, Inc.- Chief of Products and Partnerships** – spent 10 years at Microsoft where he was an executive on Windows, MSN, and Visual Studio, building and running product-development teams of up to 200 professionals. He helped lead the conversion of MSN from proprietary to Internet standards, and from his early work on Windows networking he holds several patents in distributed systems and network security. At Microsoft, Contorer also served as Bill Gates' technical advisor.

Karen Clakeley – Everyone Counts, Inc.– Vice President of Sales – has more than 20 years progressive experience in building and leading world-class sales, marketing and business development teams for market leading, global companies. Before joining Everyone Counts, Karen led the strategic account planning and client services activities for the nation's largest producer of printed and electronic customer communications. Karen is results driven and moves fluidly from vision and strategy to implementation and successful achievement of desired results.

Mike Joyce – Everyone Counts, Inc.– Senior Program Manager –For over 8 years Mike has managed and scaled Telecommunications professional services, operational, and sales organizations. Overseeing development, deployment and support of over 10,000 Asterisk PBX systems, Mike specializes in building and organizing highly technical teams through a lead-by-example approach. As a former software development and systems engineer, Mike has a deep understanding of Linux / UNIX, Telecom, Networking and Systems Integration. Mike has designed and deployed customized, highly versatile IVR systems for Governments and Businesses Worldwide. Mike also has a deep background in designing and implementing professional, highly technical training and certification programs.

Jared O'Brien - Everyone Counts, Inc.-Lead Elections Administrator - supervises the successful conduct of all phases of public and private sector elections administered by Everyone Counts; he has worked with clients located in the United States, Canada, Australia and the Russian Federation. Jared has overseen the administration of over 50 elections, including public elections in the US States of Hawaii, Washington, and West Virginia that utilized Everyone Counts' eLect software to provide better voting solutions for electors with disabilities and military and overseas electors. In addition to overseeing the elections conducted by Everyone Counts, Jared brings over 4 years of project management experience. He is a graduate of the University of Southern California.

Nick Coudsy - Program Manager - Nick has 15 years of experience in U.S. public sector elections and is a certified Project Management Professional (PMP). He has worked for many years as an election administrator and as the director of training for Los Angeles County, the largest electoral jurisdiction in the USA; and, for Contra Costa County, California. Nick, who is an election hardware and software specialist, was also a Project Manager for Premier Election Solutions for three years, focusing on serving their California and Washington State clients, particularly on the implementation of new voting systems and certification. Nick is an alumnus of Loyola Marymount University, and has performed graduate work at the H. John Heinz III School of Public Policy at Carnegie Mellon University.

#### **Chicago Board of Elections - Management**

Lance Gough – Chicago Board of Elections – Executive Director – Mr. Gough has more than 30 years of experience in election administration, overseeing one of the largest voter jurisdictions in the United States. Most recently, Mr. Gough managed the transition from the punch card system to a dual system of optical scan and touch screen voting machines. Innovations at the Chicago Election Board have included the utilization of more than 4,000 high school and college students in the administration of every citywide election and a comprehensive testing and redundant reporting systems that have assured the timely reporting of results in the region on Election Night. During Gough's tenure, the Chicago Election Board has consistently led the state in participation rates in voter registration, voter turnout and early voting. Mr. Gough is frequently invited to offer expert advice and practical advice on reforms for national and international organizations who examine elections, including associations of attorneys reviewing possible changes in state and federal laws.

Kelly Bateman – Chicago Board of Elections – Assistant Executive Director – A 27-year veteran of election administration in Chicago and Suburban Cook County, Ms. Bateman's work has focused on organizing the processes involved in identifying, registering, training and deploying more than 15,000 election judges (poll workers) for every election. Ms. Bateman also oversees community services, including outreach to foreign-language and special-needs voter blocs. In all of these capacities, Ms. Bateman's duties were instrumental in Chicago's smooth transition from the punch-card balloting system to the newer dual systems of optical-scan paper ballots and touch screen balloting machines.

**Dawn Navarro – Chicago Board of Elections – Director, Election Support Division** – All forms of non-Election Day balloting come under the supervision of Ms. Navarro, who has 24 years of experience with the Chicago Board. Ms. Navarro's division manages standard mail absentee ballots; early voting; absentee ballots to UOCAVA voters; nursing home voting; and the preparation and delivery of all related materials, forms and signage. In recent years, there has been unprecedented growth in voter use of these balloting options. In the 2008 Presidential General Election, non-Election Day balloting accounted for more than 26.8% of all the ballots cast in Chicago, shattering all earlier records. (The previous records for non-Election Day balloting were 14.9% in the 2008 Presidential Primary Election and 12% in the 2007 Aldermanic Run-Off elections).

**Tong Tran – Chicago Board of Elections – Director, Electronic Voting Division** – Mr. Tran has managed several technological transformations of voting services for the Chicago Election Board, the biggest of which was the transition from punch-card balloting systems to a dual system of optical scan paper ballots and touch screen balloting machines. Mr. Tran oversees the staff that has developed the ballot database preparation, the programming and testing of all equipment, and the preparation of computer networks for real-time management of early voting records. Mr. Tran also has been instrumental in the successful deployment of systems to securely transmit Election Night results from more than 2,500 precincts with a safety net of back-up systems at receiving stations and the central counting office. As a result, the Chicago Election Board has consistently led the region in the timely reporting of Election Night results.

Budget Proposal				
Anticipated Budgetary Timeline				
2011-3 <sup>rd</sup> and 4 <sup>th</sup> Quarters	30%	Award 10% + 20% Project Plan		
2012-1 <sup>st</sup> Quarter	30%	<b>Completion of Primary Election Milestones</b>		
2012-2 <sup>nd</sup> Quarter	10%	Preparation for General Election		
2012-3 <sup>rd</sup> Quarter 10% Preparation for General Election				
2021-4 <sup>th</sup> Quarter	20%	<b>Completion of General Election Milestones</b>		

#### Direct Labor

#### Travel

0	Two trips for 2 to	Washington,	DC for	program review/report out	\$7,600
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• One trip for 2 to San Diego for technical consultation, design review \$3,800

#### Subcontracts/sub awards: None

#### **Consultants: None**

#### **Materials and Supplies: None**

Scanners (for eLect Transcriber)

#### Other Direct Costs

Cost Item Frequency Total Software licensing fees to support: \$155,000 One time \$155,000 • 30,000 UOCAVA voters • Online ballot marking • Automated ballot remaking • Help desk Hosting • Election Administration Fee: Election \$6,000 Per election \$12,000 Configuration and Ballot Build eLect Administration Wizard: \$80,000 One time \$80,000 Customization, Activation, Testing Configuration and Integration One time \$25,000 FPCA Integration with Chicago \$25,000

\$500

Voter Registration Database Ballot on Demand Hardware	\$30,500	Per unit X 2 units	\$61,000
Absentee Remaking Software	\$500	Per election	\$1,000
Mobile Kiosks & Testing	\$4,000	Per unit X 2 units	\$8,000
Voter Outreach via email, SMS and other marketing	\$12,000	Per Election	\$24,000

# Total Budget

\$ 377,900

# I. COVER PAGE - TECHNICAL PROPOSAL

#### CFDA Number: 12.217

BAA Number: H98210-FVAP-11-BAA-0001 (previously HQ0034—FVAP-11-BAA-0001

Title of Proposal: Colorado Overseas Voter Project

CAGE Code: (b)(4)

DUNs Number: (b)(4)

Applicant: Colorado Department of State

Contractors: To be determined

Technical Contact: Hilary Rudy, Senior Legislative and Policy Analyst Colorado Department of State, Division of Elections 1700 Broadway, Suite 200 Denver, Colorado 80290 303-894-2200 ext. 6343 hilary.rudy@sos.state.co.us

Administrative/Business Contact: Judye Schneider, HAVA Budget & Contracts Administrator Colorado Department of State 1700 Broadway, Suite 200 Denver, Colorado 80290 303-894-2200 ext. 6321 judye.schneider@sos.state.co.us

Proposed Period of Performance: July/August 2011 – December, 2012

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# III. TECHNICAL APPROACH AND JUSTIFICATION

#### A. Executive Summary

The Colorado Department of State (CDOS) seeks federal grant funds for the Colorado Overseas Voter Project, which will help overseas voters access election information, register to vote, timely receive ballots, and streamline the tabulation procedures to improve voter privacy.

Colorado is a leader in overseas voting. In the past decade, we have implemented numerous measures to meet the requirements of the Uniform and Overseas Citizen Absentee Voter Act (UOCAVA) and subsequent federal and state laws. Further, Colorado has pursued innovative projects to improve the election experience for our overseas voters. For instance, in 2010 five Colorado counties participated in an electronic ballot delivery pilot led by the Federal Voting Assistance Program (FVAP). A sixth county conducted a pilot with different vendor. Recently, CDOS issued a Request for Information (RFI) based on the lessons learned from these pilots. The goal of the RFI is to identify a vendor capable of implementing a system that will meet Colorado's UOCAVA needs in future elections.

To be a good election office requires more than merely transmitting ballots in a timely manner, however. Instead, it includes all phases of the process, from registration through voting. The federal grant funding requested herein will streamline the registration process, speed ballot delivery and improve the overall electoral experience of Colorado's military and overseas voters in the following ways:

- Enhance online voter registration and voter look-up processes;
- Increase the timeliness and quality of voter information available online;
- Increase distribution options by making downloadable ballots available online and by increasing timeliness of paper ballots sent to voters using ballot-on-demand technology;
- Make more confidential the ballot duplication process to enhance the overseas voters' secrecy by adding a 2D barcode to each paper ballot;
- Improve tracking of issuance and receipt of ballots, as well as improving the notification that a ballot has been successfully submitted for tabulation, including issues like under- and over-voting; and
- Implement strategies to make post-election reporting more accurate and efficient.

To date, 38 small, medium and large Colorado counties have agreed to partner with the Department of State to test these strategies during the first phase of the project, which will be the November 2011 coordinated election. Phase Two will culminate with the June 2012 primary election, and will include process enhancements based on Phase One findings, implementation of additional strategies, and expansion to all Colorado counties. Phase Three will be the November 2012 general election. In this phase, we will consolidate and implement the aforementioned efforts, analyze our successes and failures, and prepare final reports.

Many of these activities will be wholly or partially supported by existing state resources. Others cannot be accomplished without grant funding. Financial support from the Department of Defense, through the FVAP, will allow CDOS to advance the state of the art in several areas. These achievements will lay the groundwork for the next generation of innovative applications, benefitting military and overseas voters in Colorado and across the nation.

## B. Goals and Objectives

### 1. Background and Overview

Colorado has long been a leader in facilitating registration and voting by military and overseas electors under the provisions of the Uniform and Overseas Citizen Absentee Voter Act (UOCAVA) and subsequent federal and state law. Over the past several years, the state has worked to streamline the registration process for these UOCAVA voters, provide timely access to election information and ballots, and reduce errors that occur during the absentee voting process. For example, Colorado began transmitting ballots by email for overseas military electors in 2006, and registration was extended to citizens who have never resided in the United States in 2007. Just before the passage of the federal Military and Overseas Voter Empowerment Act of 2009 (MOVE), the state adopted additional strategies, including online voter registration, authorizing late registration for military personnel discharged after close of registration, and allowing late return for overseas military ballots. That same year, the Colorado General Assembly passed a bill approving an internet-based voting pilot program for overseas military electors beginning in 2012. However, this legislation specified that the pilot could not be implemented until sufficient funds were obtained through gifts, grants, and donations to cover the costs of implementation. To date, no gifts, grants, or donations have been received to support this voting pilot program.

As part of its response to the MOVE Act and the 2009 state legislation, the Colorado Department of State (CDOS), instituted a research project to identify alternate ways to deliver ballots electronically to military and overseas voters. Five counties participated in a national pilot, through the Federal Voting Assistance Program (FVAP), to provide online ballot delivery for military and overseas electors in the 2010 general election. One additional county conducted an independent pilot with a separate vendor for the 2010 primary and general elections. Both pilots were well received by voters. In addition, the pilots helped state and county election officials identify issues and strategies that lay the foundation for future electronic ballot delivery efforts.

State legislation passed in 2011 provided additional support for efforts to improve the voting process for UOCAVA voters:

- Senate Bill 11-189 adjusted the elections calendar to move the Colorado state primary election to June and changed the state law deadline for mailing ballots to military and overseas electors to no later than 45 days before the election.
- House Bill 11-1219 adopted provisions of the Uniform Military and Overseas Voters Act. This law extended all electronic transmission options and the eight-day late return provision to all military and overseas electors. It also eliminated the state write-in ballot and extended use of the federal write-in ballot for all federal, state, and local issues in federal and state elections. Finally, the bill required the 45-day ballot mailing deadline to apply to all elections coordinated with or conducted by the county clerk and recorder, including all federal, state, and odd-year coordinated elections.

To implement the 2009 and 2011 legislative requirements and to build on the 2010 pilots described above, the Secretary of State's office recently issued an Informal Request for Information to help determine the feasibility of a statewide online ballot delivery pilot to be implemented in the 2011 coordinated (off-year) election. The goal of this statewide pilot is to

allow military and overseas electors to download and mark their ballots online, then print and return the ballots using methods available under state law. This process, described in detail in Sections III.C and IV.B, will be one major component of the project proposed in this application. Through this project, we also plan to test and implement additional innovations that will support Colorado's continued leadership role in serving our UOCAVA voters efficiently and effectively.

# 2. Project Goals and Objectives

Grant funding from the Department of Defense would allow Colorado to expand the efforts described above and improve access to voter registration and absentee voting by military and overseas electors through the proposed Colorado Overseas Voter Project. Its overall purpose is to *STREAMLINE THE ABSENTEE VOTING PROCESS AND IMPROVE THE VOTING EXPERIENCE OF COLORADO'S MILITARY AND OVERSEAS ELECTORS.* Related goals and objectives include:

- I. Increase timely access to, and the efficiency and accuracy of, the absentee balloting process for military and overseas electors.
- 1. Pilot test and implement a statewide system to provide downloadable ballots online, including the ability to notify electors about the successful completion of their ballots.
- 2. Develop the capacity to use ballot-on-demand technology to print and send paper ballots to UOCAVA voters.
- 3. Test the feasibility of using 2D barcode technology to automatically duplicate and print scanner readable ballots that have been downloaded online.
- 4. Improve existing strategies for tracking the issuance and receipt of ballots.
- 5. Identify and test alternatives for enhancing existing electronic tools to make reporting more accurate and efficient.
- II. Enhance existing tools and strategies in all other stages of Colorado's absentee balloting process for military and overseas electors.
- 1. Add functionality to online voter registration, voter record update, and voter look-up to make these processes more intuitive and user-friendly.
- 2. Manage email correspondence more efficiently by creating custom extract capability.
- 3. Improve the usability of Colorado's existing electronic voter interface by:
  - a. creating a one-stop voter portal;
  - b. posting 100-day notices of state and federal offices to be filled;
  - c. providing information about voting by Federal Write-in Ballot (FWAB); and
  - d. posting updated information after ballots are certified to include district-specific sample ballots and links to county-level information where available.

We have designed these goals and objectives to address the FVAP goals of streamlining and improving the voter registration and ballot delivery processes, as well as reducing errors that occur during the voting process itself. Our goals, objectives and planned methodology (described in Section IV.B) represent a natural progression from our previous accomplishments and also build on the smaller scale pilots conducted in 2010. Based on this experience, we believe that a large-scale project is feasible and in the best interests of our UOCAVA voters. In addition, we plan to investigate innovations, including ballot-on-demand and 2D barcode technology, which will further increase access and efficiency, while promoting ballot secrecy.

## 3. Plan for Establishing Electronic Tools to Improve Voting Systems

The following sections briefly describe our plans for establishing and operating sustainable and affordable electronic tools, as well as enhancing our existing tools, to improve voting systems for those covered by UOCAVA.

**Web-Based Voter Interface:** In this area, we plan to make improvements to our existing electronic tools to make the registration/voter look up process more efficient, and online voter information more user friendly:

- <u>Registration/Voter Look-Up Process</u>: Planned improvements in this area will include implementing changes required by the 2011 legislation described above, and adding functionality to these online processes to make them more intuitive and understandable for the user. Most UOCAVA voters provide an email address at registration, and we have learned that email is generally the most efficient and effective method of communicating with these voters. Accordingly, we plan to enhance reporting tools so that lists of voter email addresses can be more efficiently generated by county. This will allow counties to perform automated correspondence merges, reducing their need to send individual emails to UOCAVA voters. As a result, correspondence with military and overseas voters will be more uniform, timely, and efficient.
- Online Voter Information: Existing state funding will support plans to create a voter portal that will provide voters with more intuitive access to information and tools for registration and voting, such as online voter registration, ballot request, and federal write-in ballot information. The portal will be developed from a voter perspective and will incorporate recommendations from a recent usability evaluation of the office's website. CDOS is also developing a notice of all state and federal races on the ballot that will be updated after ballot certification to include candidates for state and federal offices and statewide ballot measures. We plan to develop and implement a tool that will allow voters to obtain information about the races and issues specific to their state-level district, and to link to any available county-level information. Finally, the online ballot system described below will provide help options for voters, including frequently asked questions, links or redirects to county or state websites, and other information.

**Ballot On Demand System**: The Colorado Overseas Voter Project plans to test and implement a ballot-on-demand system to enable counties to print on site, allowing them to produce and mail ballots by the 45-day deadline more efficiently. Specifically, this approach eliminates the risk of a print vendor failure that could delay ballot mailing, which is especially problematic in Colorado where there are four voting system vendors in use and numerous ballot printing vendors. We will also investigate other uses of the ballot on demand system, such as automating the duplication process by adding a 2D barcode to each ballot. This will decrease the need to duplicate electronically-returned ballots for counting, reducing human error and labor while increasing the secrecy of the voted ballot while protecting the secrecy of the UOCAVA voter's ballot.

**Online Ballot System:** Building on the results of the 2010 pilot tests described previously, Colorado plans to further test and implement a statewide ballot system that will allow UOCAVA electors to request, receive and mark ballots online. Electors can then print the marked ballots and return them via the methods available under current state law (e.g., by mail, fax, or email).

CDOS has determined that the capabilities required to implement this system in Colorado include:

- <u>Voter log-in</u>: The system requires the voter to provide authentication information (i.e., name, date of birth, driver's license or last four digits of Social Security Number, and UOCAVA classification). This information is then used to verify eligibility to use the ballot delivery system and to determine the correct ballot style to be sent to the voter.
- <u>Instructions</u>: These describe how to complete the ballot, notifications about under/over votes, and how to return the voted ballot according to the available methods. Instructions for printing and returning the ballot will be tailored to each return method.
- <u>*Cover sheet:*</u> This can be customized to the selected method of return, including the voter affirmation.
- <u>Ballot design/layout</u>: The new system will accommodate all requirements for Colorado ballot language and design. All races and issues will be ordered on the ballots as certified by the local jurisdictions. Ballots will be accurate to the unique ballot style/split. Finally, the system will not allow ballot rotation or straight ticket voting.
- <u>Write-in Capability</u>: Ballots will be designed to include write-in votes where there are approved and qualified write-in candidates, and will allow write-in candidates only where no other candidate has been selected. The list of qualified write-in candidates will be available for each race for voter review.
- *Language:* Ballots and instructions will be provided in both English and Spanish for participating counties covered by section 203 of the Voting Rights Act. The number of participating counties to be covered during the project is unknown as we are awaiting U.S. Census data.
- <u>*Printing*</u>: Ballot printing software will support both U.S. and European paper standards. The system will have the ability to interface with ballot-on-demand solutions or other automated ballot duplication technology.
- <u>Ballot data and external interfaces</u>: The new system will allow for flexible data import and will be capable of importing ballot data in the formats customarily used by each county. This includes in-house or vendor-specific election management system format, Access, Excel, Word, Text, PDF, or CSV files. The ballot data will be provided by the counties and the voter registration data will be provided by the state.
- <u>ADA/HAVA Compliance</u>: The system will interact with, or directly provide, standard accessibility interfaces. It will be designed to disallow overvoting and will notify voters of any overvote, requiring them to make a single selection. It will allow undervoting but will provide notification of any undervotes and offer the opportunity to make a selection. Finally, it will summarize voters' selections, allowing them to make changes before finalizing and printing the ballot for return.
- <u>Support and help desk</u>: The system vendor will provide help desk services for counties during the ballot design phase of each project, as well as help desk services available to both counties and voters during live election periods.

**Reporting and Statistics**: The proposed system can provide daily, weekly and election use summaries by the counties and voters. These reports will provide a county-level breakdown of ballots accessed and downloaded for printing. The system will also track statistical information about voter access by UOCAVA category (e.g. military, overseas citizen). Finally, the system

will ask participating voters to complete a satisfaction survey. Respondents will compare the online voting process with their voting experiences in previous elections and whether there are any enhancements they would like in the future. We are also considering conducting a post-election survey for all UOCAVA voters. This survey would ask similar questions to the planned online survey.

# 4. Proposed Project Metrics

Achievement of the Colorado Overseas Voter Project project's goals and objectives described above are expected to produce a number of positive outcomes. The table below illustrates metrics and targets for these expected outcomes, along with baselines (where available) from the 2008 and 2010 elections.

Expected	Metric(s)	Ba	seline/Ta	rget
Outcome	wethe(s)	2008	2010	2012
Increases in registrations among potential UOCAVA electors	<ol> <li>Number of registered military and overseas voters.</li> </ol>	16,251	10,650	17,000
Increased numbers of UOCAVA voters.	<ol> <li>Total number of UOCAVA ballots counted: a. Military</li> </ol>	11,942 3,304	4,378 1,086	14,000 4,000
	b. Overseas electors	8,638	3,292	10,000
Improved access to appropriate absentee ballots.	<ol> <li>Number of ballots sent (reports will include subtotals by transmission method, i.e., mail, fax, email, online)</li> </ol>	16,251	10,650	17,000
	<ol> <li>Number of ballots returned (will include subtotals by transmission method).</li> <li>Number of ballots returned by type:</li> </ol>	13,029	4,645	14,875
	<ul><li>a. State mail-in</li><li>b. Federal write-in ballots</li></ul>	11,317 1,538	4,560 97	13,306 1,569
Reduced failure rates for UOCAVA	<ol> <li>Percentage of returned ballots that are counted.</li> </ol>	73.5%	94.3%	96%
voters in various stages of the	<ol> <li>Percentage of rejected ballots by reason.</li> </ol>	5.9% (total)	2.9% (total)	2.5%
absentee balloting	3. Percentage of undeliverable ballots.	1.4%	8.3%	1%
process	<ol> <li>Number &amp; percentage of ballots spoiled or replaced.</li> </ol>	5.6%	5.8%	4%
	<ol> <li>Percentage of ballots not returned as undeliverable that are not returned by the voters (status unknown).</li> </ol>	19.2%	40.3%	15%
Improved voter satisfaction with information, access to	1. Percentage of voters surveyed who report that the registration and information process was more user friendly than in previous years.	n/a	n/a	60%
registration, and the online voting system	<ol> <li>Percentage of voters surveyed who report that the online voting system was easier to use.</li> </ol>	n/a	100%	90%

Expected	Motria(a)	Bas	Baseline/Target			
Outcome	Metric(s)	2008	2010	2012		
Increased efficiency in the absentee ballot printing process.	<ol> <li>Percentage of county staff surveyed who report that the ballot on demand system reduced "work- arounds" necessary for ballot printing.</li> </ol>	n/a	n/a	60%		
	2. Percentage of county staff reporting lower labor costs due to the new ballot on demand system.	n/a	n/a	60%		
	<ol> <li>Percentage of counties reporting that they used ballot on demand to eliminate the need for a work- around solutions</li> </ol>	n/a	24%	60%		
Improved satisfaction among county staff with the	<ol> <li>Percentage of county staff surveyed reporting greater ease in communicating with UOCAVA voters.</li> </ol>	n/a	n/a	60%		
UOCAVA registration and voting processes.	<ol> <li>Percentage of county staff surveyed who report that the online voting system was more efficient than in previous years.</li> </ol>	n/a	n/a	60%		

# 5. Potential Benefits

Implementation of the new technologies and process improvements described above are expected to benefit Colorado UOCAVA electors by improving access, enhancing informational offerings, and reducing failure rates in every stage of the absentee voting process. The state and counties will benefit from increased efficiency, reduced labor and other costs, and a streamlined process. Although we are aware that many jurisdictions are planning to implement online ballot delivery systems in the coming years, we believe that some of the innovative strategies we plan to test, such as ballot-on-demand technology and 2D barcoding to protect UOCAVA ballot secrecy, will advance development and lay the groundwork for the next generation of these types of creative tools and applications for the UOCAVA voting process across the country.

Each of our initiatives reflects a creative approach to solving real challenges facing UOCAVA voters in the registration and voting process. We have demonstrated that each pilot we have implemented in recent years has led to process and technology enhancements that have resulted in improved system performance in subsequent elections. By developing these technologies through careful pilot testing, and by using a comprehensive approach that addresses all components of the UOCAVA voting process, we believe that the Colorado Overseas Voter Project will result in useful, cost-effective strategies and tools that will benefit jurisdictions across Colorado and the nation.

# 6. Security Measures

As described above, the new online voting system to be pilot tested in Colorado will incorporate a variety of security protocols to anticipate, detect, and prevent security threats. These will include:

• <u>System and ballot security protocols.</u> The proposed online system will use encryptions standards that are currently documented and validated for use by agencies of the federal

government. The system will employ an industry standard means to detect the presence of an intrusion threat.

• <u>Data security and destruction</u>. The system will not store voter information or voted ballots. No voter information will be cached or retained and all files containing such information will be destroyed at the conclusion of each project. Confidential voter information will be protected from accidental disclosure or breach.

# C. Schedule and Milestones

The Colorado Overseas Voter Project will be organized according to the state's three upcoming elections in 2011 and 2012, and will include the following major milestones:

	Milestone	Dates	Responsible
Pha	ase I: Coordinated (Off-Year) Election-	November 1, 20	11
	ject Component: Online ballot delivery		
1.	Vendor selection, contract, statement of work	July/August, 2011	CDOS staff, vendor
2.	Initial/test data delivery with pilot counties:	August, 2011	
	Voter registration data		CDOS staff
	Ballot data		Pilot county staff
3.	Build system functionality, cosmetic look & feel, test election	August, 2011	Vendor
4.	Test functionality and accuracy of ballot layout	AugSept., 2011	CDOS/county staff
5.	Ballot certification	9/2/2011	CDOS, local govts.
6.	Final data delivery Voter registration data Ballot data	September 9, 2011	CDOS staff Pilot county staff
7.	Ballot creation/election build	Sept. 9-16, 2011	Vendor
8.	Ballot proofing and Logic & Accuracy testing	Sept. 9-16, 2011	CDOS/county staff
9.	GO Live (45 days before election day)	September 17, 2011	CDOS, vendor, pilot counties
10.	Daily reporting	9/17-11/1/2011	Vendor
11.	Daily registration data delivery	9/17-11/1/2011	CDOS staff
12.	Post election reporting/survey compilation	Nov. 2-30, 2011	CDOS, vendor, pilot counties
13.	Analysis & identification of enhancements/ updates/ process improvements for next phase	December, 2011	CDOS, vendor, pilot counties
Pro	ject Component: Electronic Voter Interface		
1.	Finalize requirements, develop and test web pages and interface enhancements for voter portal, registration and ballot requests.	July, 2011	CDOS staff
2.	Voter Portal Go Live	August, 2011	CDOS staff
з.	Finalize requirements, develop & test district- specific state and federal sample ballots	September- October, 2011	CDOS staff, vendor
4.	Post election voter survey	November, 2011	CDOS staff
5.	Post election analysis to identify updates, enhancements and/or improvements	December, 2011	CDOS staff, vendor
Pro	ject Component: Ballot on Demand		
1.	Issue RFI/RFP	August, 2011	CDOS staff
2.	Vendor selection, contract, scope of work	SeptOct., 2011	CDOS staff, vendor
3.	Develop and finalize requirements for voter registration interface	NovDec., 2011	CDOS staff, vendor
4.	Finalize requirements for custom data extract enhancements	December 2011 –January, 2012	CDOS staff, counties

	Milestone	Dates	Responsible
Ph	ase 2: State Primary Election – June 26	, 2012	
	line ballot delivery:		
1.	Identify new participating counties and kickoff with vendor.	March, 2012	CDOS, vendor, new counties
2.	Milestones 2-11 as described in Phase 1 online ballot delivery section.	March – June 26, 2012	CDOS, vendor, new county staff
3.	Post election reporting/survey and identification of enhancements.	June 27-July, 2012	CDOS, vendor, new counties
Ele	ctronic Voter Interface	•	
1.	Develop and test 100 day notices, custom extract, voter portal, sample ballot and other potential enhancements	January- February, 2012	CDOS staff
2.	Provide extract to counties for email correspondence	January- February, 2012	CDOS staff, counties
3. 4.	100 day notice, sample ballot, etc. Go Live Post election survey, analyses and identification of enhancements	3/28-4/27, 2012 June/July, 2012	CDOS staff, vendor CDOS staff, vendor
Bal	lot on Demand:	1	
1.	Develop voter registration interface	JanFeb., 2012	CDOS staff
2.	Equipment delivery/setup-may be regional	February, 2012	Vendor, counties
3.	Regional training, additional training for auto duplication pilot counties	February/March, 2012	CDOS staff, vendor, counties
4.	Test voter registration interface	March, 2012	CDOS, counties
5.	Logic & Accuracy testing	April/May, 2012	Counties
6.	Print military/overseas ballots for mailing	May, 2012	Counties
7.	Autoduplication of voted ballots	June, 2012	Pilot counties
8.	Post election voter survey, reporting, analyses & identification of enhancements.	June/July, 2012	CDOS staff, vendor, counties
	ase 3: General Election – November 6, 2 line ballot delivery:	2012	
1.	Build and test enhanced functionality based upon post election reviews	August, 2012	Vendor
2.	Milestones 2-13 as described in Phase 1 online ballot delivery	August – December, 2012	CDOS, vendor, new county staff
Ele	ctronic Voter Interface		
1.	Build and test enhancements/updates	July-Aug., 2012	CDOS staff
2.	Enhancements Go Live dates	8/8-9/7, 2012	CDOS staff
3.	Post election voter survey, reporting, analyses & identification of enhancements.	November- December, 2012	CDOS staff, vendor, counties
Bal	lot on Demand		
1.	Build and test enhancements/updates	July-Aug., 2012	CDOS/vendor/cites
2.	Implement enhancements/updates	SeptOct. 2012	CDOS/counties
3.	Post election voter survey, reporting, analyses & identification of enhancements.	November- December, 2012	CDOS staff, vendor, counties
ALI	L PROJECT COMPONENTS:		
1.	Post-election analyses of all three phases, compilation of all results, report preparation and submission to FVAP	November 7, 2012 – January 2, 2012	CDOS staff, counties

# D. Reports

Project		Type of Information	Data Sources	Submission
Component				Dates
DELIVERABLE:				
Voter Interface	1. 2.	Historical comparison of % of UOCAVA registrants vs. %age for general electorate. Percentage UOCAVA voters active/inactive compared to	Registration and voting records	12/30/11 7/31/12 1/31/13
	з.	general electorate Percentage of voters satisfied with the information they receive from the website	Voter satisfaction surveys	Same as above
Online Ballot Tool	1.	Voter traffic (e.g., number of ballots accessed and downloaded) by county and UOCAVA category (e.g., military or overseas citizen) Number of ballots sent, returned, counted, and rejected by county, ballot type (FWAB, regular absentee, downloaded), type of transmission (mail, fax, email, online), and reasons for	System reports (reported daily, weekly & by project phase)	Weekly from 9/17-11/1/11 Weekly from 5/12-6/26/12 Weekly from 9/11-11/6/12
	з.	rejections Voter satisfaction with the online system compared to previous experiences.	Satisfaction surveys	12/30/11 7/31/12 1/31/13
Ballot on Demand	1.	Number of ballots produced to meet 45-day requirement and subsequent requests.	System/county reports	Weekly from 5/12-6/26/12 Weekly from 9/11-11/6/12
DELIVERABLE:	OGRESS REPORTS	12/30/11 and 7/31/12		
Overall Project Progress	1.	Dates of accomplishment of Phase One and Phase Two activities compared to original timeline. Changes in activities with justifications/ rationales for these changes	Project and meeting records	
	з.	Expenditures for overall project management compared to budget.	Accounting records	
Voter Interface	1. 2.	Phase One and Phase Two analyses of voter interface data. Report on planned updates, enhancements and/or process improvements for next phase.	Data collection points reports Records of related project discussions and meetings	
Online Ballot Tool	1.	Phase One and Phase Two analyses of online ballot data.	Data collection points reports	

Project Component		Type of Information	Data Sources	Submission Dates
	2.	Report on planned updates, enhancements and/or process improvements for next phase.	Records of related project discussions and meetings	
	3.	Expenditures for online ballot system compared to budget.	Accounting records	
Ballot on Demand	1.	Phase Two analyses of ballot on demand data.	Data collection points reports	
	2.	Report on planned updates, enhancements and/or process improvements for next phase.	Records of related project discussions and meetings	
	3.	Expenditures for ballot on demand compared to budget.	Accounting records	
DELIVERABLE:	F1	NAL REPORT		1/31/13
Overall Project Progress	1. 2.	Dates of accomplishment of Phase Three activities compared to original timeline. Changes in activities with justifications/ rationales for these changes	Project and meeting records	
	3.	Expenditures for project mgmt compared to budget.	Accounting records	
	4.	Summary of all project accomplishments	Phase 1-2 progress reports, Phase 3 analyses	
Voter Interface	1.	Phase Three analyses of voter interface data.	Data collection points reports	
	2.	Final report of accomplishments, lessons learned and recommendations for other jurisdictions for this component.	Phase One and Two progress reports, Phase Three analysis	
Online Ballot Tool	1.	Phase Three analyses of online ballot system data.	Data collection points reports	
	2.	Final report of accomplishments, lessons learned and recommendations for other jurisdictions for this component	Phase One and Two progress reports, Phase Three analysis	
	3.	Overall expenditures related to online ballot system component compared to budget.	Accounting records	
Ballot on	1.	Phase Three analyses of ballot	Data collection	
Demand	2.	on demand data. Final report of accomplishments, lessons learned and recommendations for other jurisdictions for this component	points reports Phase One and Two progress reports, Phase Three analysis	
	3.	Overall expenditures related to online ballot system component compared to budget.	Accounting records	

## **IV. MANAGEMENT APPROACH**

#### A. Project Partners

Led by the Department of State (CDOS), the partnership during the project's Phase 1 (see following description in the following section) will include approximately 38 small, medium and large Colorado counties. These counties have already agreed to participate in the 2011 pilot test of the online voting system, and other counties may sign-on before this phase begins. Colorado plans to have a final list of counties committed to participate by the end of July, 2011. In addition to these jurisdictions, one or more vendors will work with the project to develop the planned online voting system. As described in the following section, we will select from among the five vendors who responded to the Secretary of State's recent RFI.

During Phase 2, which ends with the June, 2012 primary election, we plan to expand implementation of the online voting system technology to all Colorado counties. Further, we expect to roll out the on-demand technology during this phase, with the involvement of all counties statewide. To implement this new technology, we may work with a vendor to develop the online sample ballot. We also plan to issue another RFI for one or more vendors to develop and test the full ballot on demand technology. We expect to receive approximately three responses, with the final list of partnering vendors dependent on our evaluation of the responses to this RFI.

Colorado's proposed approach is a collaboration of the state and all 64 Colorado counties, as well as multiple vendors with a range of expertise in different areas of the voting process. Because our project plans to touch every aspect of the registration and voting process, we would bring the different perspectives of each of the teams/vendors handling the various processes. In our experience, bringing greater diversity of ideas and viewpoints to address a situation often results in the most innovative and effective resolution. And, involving collaborators with different areas of expertise helps identify areas where we may be trying to over think potential solutions.

Colorado has successfully collaborated with other states, counties, vendors, consultants and higher education institutions to improve election processes, not only for military and overseas voters but also for all Colorado electors. One recent example is the 2010 pilot test of the online voting system. In addition to the state, collaborators in this project included FVAP, five Colorado counties, about 17 other states, and 6 vendors. Further, Colorado was recently awarded an Election Assistance Commission grant to research and implement a risk-limiting post-election audit. The state is partnering with six counties with varied voter populations, voting equipment vendors, and technological capability. Colorado has also been actively participating in a Pew Center on the States initiative, where several states and Pew are developing a national database to modernize the voter registration process. The goal of the project is to develop a database to assist states in maintaining more accurate voter registration lists and aiding eligible electors in becoming registered.

#### B. Methodology

As was described in Sections III.B.1-2, the proposed Colorado Overseas Voter Project will continue and expand a research study launched by the Colorado Department of State, Division of Elections (CDOS), in 2009. To date, its focus has been to investigate the feasibility of implementing an online voting system for UOCAVA voters throughout Colorado. Prior to being

notified about this Department of Defense/FVAP funding opportunity, the CDOS had also planned to enhance the electronic voter interface system over the next year by making improvements in online registration, web-based information, ballot request, 100-day notice, and sample ballots. These changes will be accomplished using existing state funding and will be incorporated into the overall project plan. Grant funding from FVAP will allow Colorado to enhance our online voting development process, which is already underway. It will also provide a means through which CDOS and its partners can investigate alternatives and implement strategies using innovative ballot-on-demand technologies, thus advancing the state-of-the-art in serving UOCAVA voters efficiently and effectively.

The Colorado Overseas Voter Project will therefore include three major components: online voting system, web-based voter interface, and ballot on demand. The proposed methodology is to organize these components into phases centered around the next three statewide elections: the Coordinated (odd-year) Election on November 1, 2011; the State Primary Election on June 26, 2012; and the General Election on November 6, 2012. This approach, described briefly in the following sections and in more detail in Sections IV.C-E, will allow the Colorado Department of State to implement, test, and refine our planned strategies across these elections with ever-increasing interest, functionality and participation.

## 1. Coordinated Election Phase – November 1, 2011

This phase will be characterized primarily by final definitions of goals and objectives in all areas, and pilot testing of the planned strategies in online ballot delivery and ballot on demand printing. These pilot tests will be implemented in a selected group of Colorado counties that have volunteered to participate. We will also roll out many of the voter interface enhancements, including the new voter portal, during this phase.

**Online Ballot System:** Preparations have already begun for some strategies to be tested in Phase 1. Shortly before this federal grant announcement was issued, CDOS issued a Request for Information (RF1), asking vendors to respond regarding their interest and ability to work with the state to implement an electronic ballot delivery system during the 2011 coordinated election. Responses were received from the following vendors: Democracy Live, Everyone Counts, Konnech, Scytl/ES&S, and Valiant Solutions. CDOS is currently evaluating these proposals using both objective and subjective measures. These evaluation criteria will measure the respondent's capacity to: develop the system functionality described in Section III.B.3; implement required security measures as outlined in Section III.B.6; deliver adequate support and help desk services to both voters and county staff; and provide comprehensive and timely project-related reports, including results of any voter satisfaction survey. The RF1 evaluation group includes CDOS staff, experts from the Secretary of State's Information Technology division, and county elections employees. After the evaluation, CDOS may invite vendors to submit more information and/or respond to questions, with the eventual goal being the selection of a vendor to work with the state and the participating counties in the 2011 pilot.

Once a contract is executed with the selected vendor and the list of participating counties is complete, CDOS will host an August, 2011, kickoff/orientation meeting with the vendor and pilot county staff to discuss schedules, tasks and any concerns. The online balloting project will then move into the build and test phase. The state and counties will supply voter registration and test ballot data, and the vendor will build functionality and create the initial "look and feel" of

the new system. The ballot layout's functionality and general accuracy will then be evaluated using the test data. Feedback from these evaluations will be used to make any needed changes.

Upon certification of the ballots, CDOS and the pilot counties will provide final voter registration and ballot data. The vendor will use this information for ballot creation and the election build. CDOS and the counties will proof the ballots and submit the new system to Logic and Accuracy testing. The final product will be completed in time for the "GO Live" date, September 17, which is 45 days before the 2011 election. From September 17 to election day, CDOS staff will deliver new registration data to the vendor daily. In addition, daily reporting by the vendor will provide ongoing input on the process and allow for troubleshooting if needed. After the election on November 1, the project team will compile results, including election metrics and feedback from surveys of county staff and voters. These results will be used to identify potential process improvements and enhancements for the next election.

**Voter Interface:** CDOS staff have already begun the planned voter interface enhancements and have identified a vendor to assist with parts of this process. Shortly before this grant announcement was released, CDOS' elections and IT staff met to define improvements to the online voter registration tool for military and overseas voters. These enhancements, which will be designed by the internal IT staff, are expected to include changes in the voter registration and ballot request processes. The staff has also engaged in some initial discussions regarding the development of a voter portal. Additional meetings are scheduled in July to complete the requirements, develop final goals and objectives, and begin development, with an expected Go Live date for the portal of July-August, 2011. Finally, staff has conducted some initial feasibility. We plan to hold further meetings to finalize requirements, goals and objectives in this area to enable development of this tool by September-October.

**Ballot on demand:** CDOS plans to issue an informal request for information later this summer asking vendors to respond regarding their interest in and capacity to work with the state to implement a ballot on demand solution statewide and will research and/or pilot an automatic duplication system during the 2012 primary and general elections.

# 2. State Primary Election Phase – June, 2012

**Online Ballot System:** During this phase, we will concentrate on two overall tasks for the online ballot system: implementing the process improvements and enhancements that were identified during Phase 1, and rolling out the new system to those counties that were not part of the pilot. In general, the planned activities will mirror those conducted during the 2011 election, with further identification of improvements to be implemented for the general election.

**Ballot on Demand:** During Phase 2, the vendor will deliver and set up the equipment in each county, and provide training for the state and counties. The counties will conduct a Logic & Accuracy test of the equipment and implement printing of the ballots in time to comply with the 45-day deadline. In 2008, there were four counties that reported no ballot requests by UOCAVA voters. However, we believe it is appropriate to implement Ballot on Demand in these counties because they may have future requests from UOCAVA voters. Further, the enhancements to the voter interface discussed below are likely to have some effect on the number of requests received from UOCAVA voters because we anticipate that these enhancements will reduce the potential for failure in the registration and ballot request process.

During the same time period, we plan to pilot test the feasibility of automatically duplicating ballots that have been downloaded through the online delivery tool using 2D barcode technology. Because the benefits of implementing this technology become greater as the number of voters increases, we will limit the pilot counties to those with 500 or more military and overseas voters (on a volunteer basis). The pilot counties will receive additional equipment and training and would use auto duplication in the primary election to provide sufficient time to evaluate the process and functionality, and implement improvements prior to the general election.

**Voter Interface:** The primary activity for this component during Phase 2 will be to develop the online sample ballot for state and federal races/issues. The sample ballot is required by state law and is a post-ballot certification update to the 100-day notice, which gives voters instructions for voting a federal write-in ballot (FWAB). The sample ballot could be easily posted as a comprehensive list of all state and federal level races and state issues. However, we believe that a district-specific sample ballot would be far more useful to voters who may need to vote a FWA or want to review the choices before downloading ballots online. We will work with our ballot certification vendor to create a sample ballot for each district and with our internal IT office to develop a web tool that will allow voters to enter their zip code in order to pull up their specific sample ballot. We would also work with the counties to link over to any local information.

## 3. General Election Phase – November, 2012

The 2012 general election will be a final statewide implementation of the process improvements and enhancements in all components of the absentee voting experience for military and overseas electors. This Presidential election is expected to attract large numbers of UOCAVA voters. As a result, the strategies put into place in the first two phases will face a final test during this phase. It will also allow Colorado the opportunity to compare metrics from the 2008 election, before these improvements were implemented, with the results of the 2012 general election. We plan to devote a considerable effort after this election to compile, analyze and report on these results.

# C. How Financial Management, Measures of Success and Milestones Will Be Incorporated

Through out all phases of its implementation, the project will follow strong principles of financial management, and will incorporate both fiscal and program-oriented milestones and measures of success. CDOS, which has a fiscal year budget of approximately \$21 million, has extensive experience with and appropriate infrastructure for managing federal grants, most notably with the Help America Vote Act (HAVA) project. Judye Schneider, the Department's HAVA Budget/Policy Analyst, will provide financial management and fiscal oversight.

Sections III.B.4 and III.C offer overviews of milestones and performance measures to be tracked and evaluated over the course of the project. Where appropriate, CDOS will include these milestones and performance measures in its contracts with the vendors that will have major responsibility for implementing the online voting system and ballot on demand components. These contracts will be written based on the Secretary of State's model IT contract, and will include fiscal guarantees tied to the milestones and performance measures in the contract. Ongoing financial management, milestones and performance measures will also be incorporated through the activities associated with the return on investment analysis described in Section V.3.

# D. Definition and Formalization of Strategic Goals

Every stage of the voting process presents a greater challenge to military and overseas voters than it does to resident electors, including those who vote locally by absentee ballot. With that in mind, the overarching purpose of this project is to use technology to streamline and ease the process for UOCAVA voters, thus increasing their success rates at every step. At the same time, project activities must fulfill two other essential strategic aims:

- They must enable Colorado to carry out the provisions of all federal and state legislation related to this area; and
- They must achieve the specified outcomes at the lowest cost and by placing the least amount of burden on state and county election officials.

Section III.B.2 lists initial goals and objectives for the Colorado Overseas Voter Project. As the project progresses, we will further define and formalize goals and objectives for each component based on the overall project purpose and strategic aims described above. This process is expected to include specific measurable outcomes (e.g., reductions in failure rates or lower costs) associated with each objective, which may be modifications and/or expansions of the outcomes and metrics listed in Section III.B.C.

# E. Planned Modifications to Current Processes

# 1. Voter Interface

Analysis and measurement of current processes, process related elements and justification for modifying the existing processes: The relevant current processes associated with voter registration, ballot request and the web-based information system include:

- Colorado implemented online voter registration in 2009, but found that the system initially did not have full functionality to assist military and overseas voters. During the 2010 election cycle, we enhanced the system to include all of the federal postcard requirements. However, because the system did not prompt voters to confirm their preferred method of ballot transmission and ballot mailing address, counties still had to conduct a significant amount of follow up to ensure the ballot is sent correctly. Modification of this system is expected to reduce the counties' need to perform this follow-up work.
- The recently-passed Uniform Military and Overseas Voters Act (UMOVA) extended the availability of email ballot transmission and eight-day late return to all military and overseas voters. At present, Colorado's statewide voter registration portal does not have the capability to accommodate the email ballot transmission for all UOCAVA classifications. Therefore, the portal needs to be modified to fulfill this legislative requirement.
- In the past, a voter wanting to complete a federal write-in ballot (FWAB) needed to request sample ballot from his/her county clerk to determine what races/issues and approved candidates were on the ballot. In response to the passage of UMOVA, the state will be posting 100-day notices of state and federal races that are on the ballot, as well as updated notices after the ballot content is certified. These notices will be accompanied by instructions for completing the FWAB. In developing the updated notice, we want to ensure that the voter has as much appropriate information as possible to complete the FWAB. As a result, we intend to make this notice a district-specific sample ballot so each voter will see only those state and federal races that he/she is eligible to vote.
- Prior to the 2006 elections, Colorado created a voter guide for military and overseas voters which is updated for each election. However, counties and the state still receive many emails

and calls during the weeks leading up to an election. Based on feedback from a usability survey, we believe our website can be improved by creating a task-oriented voter portal. Voters typically go to our website to achieve a specific goal, such as registering to vote or determining whether their ballots have been received. The voter portal will be built to help voters easily identify the path to achieve their specific goal.

**Potential risks and mitigating strategies**: The only risk we foresee with this component is that our enhancements will not prove as effective as we had expected. For this reason, we plan to solicit and monitor voter and county feedback during project Phases 1 and 2 to troubleshoot if necessary and assure that the changes we make produce the desired outcomes.

**Formalization of performance indicators and performance measurements**: During the 2008 election, about 1.4 percent of Colorado's UOCAVA ballots mailed were returned as undeliverable, compared to about 0.98 percent of domestic absentee ballots. In 2010, about 7 percent of UOCAVA ballots mailed were returned undeliverable, compared to about 3.21 percent of domestic absentee ballots. Although we generally see this number increase in both categories in off-year elections, we believe that the planned improvements to the online voter registration tool and voter information on the website will decrease the failure rate in this area for UOCAVA voters in 2012.

**Projections of the modifications' effectiveness**: Our working hypotheses for this component of the research project are:

- The electronic voter interface enhancements will help voters more efficiently reach their desired goal in using our website, decreasing the need for individual communications with the state or counties.
- The electronic voter interface enhancements will reduce the amount of follow-up required on the part of the county before the ballot can be mailed.
- The electronic voter interface enhancements will improve the voters' experience by providing better and more user-intuitive information.
- The electronic voter interface enhancements will reduce the number of ballots returned as undeliverable by making it easier for UOCAVA voters to update their mailing address in one stop.

# 2. Ballot On-Demand System

Analysis and measurement of current processes, process related elements and justification for modifying the existing processes: Ballot on demand technology is a tool that could be deployed statewide to eliminate the risk of vendor print failure in meeting the 45-day deadline for mailing ballots to voters. About 12 counties used this technology to meet the mailing deadline for the 2010 general election. Although all Colorado counties were able to meet this deadline in 2010, the remaining 52 counties were completely reliant on their ballot printers and experienced a variety of difficulties. Most were required to implement less desirable contingency plans to ensure that all ballots were mailed by the deadline. Eighteen counties sent voters a PDF or Microsoft Word copy of the ballot, which required duplication after the voted ballot was returned. Ballot on demand would have allowed those counties to meet the deadline with a scanner readable ballot, regardless of the print vendors' actions.

The auto-duplication technology has the potential to streamline duplication of electronically transmitted ballots. And, more importantly, it may improve accuracy and safeguard the secrecy of electronically transmitted ballots by eliminating the manual duplication process, which requires a team of election judges. These issues will likely be even more critical in 2012, because participation generally increases in Presidential election years. In 2008, about 16,000 ballots were requested by military and overseas electors (compared to just over 11,000 in 2010).

**Potential risks and mitigating strategies**: The initial investment in the printers and software necessary to implement this component is not insubstantial. However, based on our experience in 2010, we believe that the ongoing costs will be comparable to the per ballot cost of a print vendor. In addition, ongoing licensing costs are minimal and counties are largely paying for the printed ballot after their initial investment. This strategy has another advantage, in that counties retain control over printing rather than relying on a vendor.

The cost benefit of using auto-duplication technology decreases as the number of voters decrease, since the labor costs associated with manual duplication are lower. However, as noted above, this technology does provide non-financial benefits from improved security and accuracy. Therefore, a major goal of pilot testing both ballot on demand printing and auto-duplication will be to determine the cost-benefits of implementing these technologies in counties of various sizes and with varying numbers of UOCAVA voters. We believe that auto-duplication technology will have a greater benefit in larger jurisdictions due to the number of ballots they may need to duplicate. However, smaller jurisdictions may benefit from the printing technology because they are more likely to be held hostage by a print vendor failure. Our performance indicators and measures in this area have been designed to determine whether these assumptions are correct.

**Formalization of performance indicators and performance measurements**: Just over 16,000 ballots were requested by military and overseas electors during the last Presidential election. During that election, about 3 percent (about 500) of the ballots were rejected because they were received after the deadline. This compares to about 0.09% of domestic absentee ballots that were rejected. In 2010, military and overseas electors requested just over 11,000 ballots and about 0.9 percent (about 98) were returned after the deadline, about the same as the domestic absentee ballot rate. The tools and pilots implemented in this general election had a clear effect on the rate of ballots returned in time to be counted. We believe that a larger implementation will further decrease this failure rate so that it is below the failure rate for domestic ballots.

Projections of the modifications' effectiveness: Our project will test these hypotheses:

- The ballot on demand technology will eliminate the risk of print vendor failure in meeting the 45-day mailing deadline.
- The ballot on demand technology will help improve accuracy and protect voter secrecy by automatically duplicating ballots downloaded online
- The auto duplication feature will reduce the labor involved in hand duplication of ballots, and resulting in cost savings in counties with more than 500 UOCAVA voters.

# 3. Online Voting System

Analysis and measurement of current processes, process related elements and justification for modifying the existing processes: Despite the 45-day day mailing provision and late return authorization, many UOCAVA voters still have trouble receiving and

returning their ballots in time to be counted. There are many reasons for this difficulty, such as the realities of space allocations on military transports and the facilities and services available in remote areas of developing countries. For example, in 2008, one Colorado county had a voter stationed in Antarctica who was unable to receive a ballot because of the winter no-fly period. Regardless of the reason, these voters need a way to receive ballots in time for their votes to be counted. Fax is a limited option, and in many cases presents challenges due to international time zones, power outages, and other factors.

Online ballot delivery allows voters to access their ballots whether the clerk's office is open or not. This option shortcuts the transmission time and eliminates the back and forth sometimes required to send a ballot by fax. One of the long-range benefits of the online ballot delivery system is its flexibility and usefulness to jurisdictions of all sizes. The benefits of online ballot delivery translate across jurisdiction size – a small county may only have a few UOCAVA voters, but these voters may have high needs for an alternative transmission method (e.g., posted in Antarctica). Voter feedback from the 2010 and 2011 pilot tests of an online system has been overwhelmingly positive. One hundred percent of voters who responded to post-election surveys conducted as part of these tests stated they would use the system again, and a majority rated the experience as much better than past voting experiences.

**Potential risks and mitigating strategies**: The initial investment in this type of technology is generally larger than the ongoing costs to implement. Each county must build a template for its election the first time the technology is implemented. After that, much like working with a print vendor, the template will allow future elections to be built more quickly. In addition, the pilot will help the counties, state, and vendors identify process and technology efficiencies that can be implemented in future elections. Establishing the election template and identifying efficiencies will ensure that the system can be implemented in a sustainable fashion. One such efficiency that seems reasonably attainable would be to build the system so that counties can control their own election setups in the future. This would not only remove the vendor from an election process, it would reduce election costs. Although we are not aware of any vendors who have developed this functionality at present, we will explore the feasibility of achieving this goal over the life of the project.

**Formalization of performance indicators and performance measures**: Just over 16,000 ballots were requested by military and overseas electors during the last Presidential election. About 3 percent (about 500) of these ballots were rejected because they were received after the deadline. This compares to about 0.09% of domestic absentee ballots that were rejected. In 2010, just over 11,000 ballots were requested by military and overseas electors and about 0.9 percent (about 98) were returned after the deadline, about the same as the domestic absentee ballot rate. The tools and pilots implemented in the 2010 general election had a clear effect on the rate of ballots returned in time to be counted. We believe that a larger implementation will further decrease this failure rate so that it is below the failure rate for domestic ballots.

**Projections of the modifications' effectiveness**: The primary hypothesis for this component is that the online ballot delivery tool will improve the voters' experience and reduce the number of ballots returned too late to be counted by reducing the round-trip mailing time.

# F. Current and Pending Project Proposal Submissions

The only related project for which CDOS receives current support is the Colorado Risk-Limiting Audit Project (CORLA), funded by a grant from the U.S. Election Assistance Commission. As listed below, two CDOS staff members, Judd Choate and Judye Schneider, devote a portion of their time to CORLA, in addition to the time proposed for the Overseas Voter Project. No other CDOS staff members will have responsibilities related to both grant projects.

# Title of Proposal: Colorado Risk-Limiting Audit Project

**Summary:** The purpose of this project is to develop and pilot new and/or alternative postelection risk-limiting audits using evidence-based, cost-effective processes and methodologies. Five Colorado counties are serving as pilot sites for the project, which has three goals:

- 1. To develop, test, and implement a risk-limiting audit system for Colorado that meets the letter and spirit of Colorado Revised Statute 1-7-515.
- 2. To create a user-friendly, transparent, post-election audit process that can be performed successfully in a variety of jurisdictions, using a variety of voting methodologies, technologies, and vendors.
- 3. To widely disseminate the project's research results to encourage appropriate replication in jurisdictions across the state and the nation.

The project has formed a Research Team composed of CDOS staff members and two expert consultants. This group is reviewing current election processes in the target counties and soliciting input from other stakeholders, including county election officials, voters and concerned citizen groups. The team is also reviewing existing best practices in the state and the nation in order to select the most promising practices for testing in the appropriate target counties.

Tests of these alternative strategies will be designed to collect data on the amount of time and types of staff needed to implement each strategy, feedback from county clerks and their staffs on the strategies' understandability and ease of implementation, and input from citizens and other groups. Methods will include direct data collection, questionnaires, focus groups and individual interviews. The Research Team is also recruiting a second group of counties to serve as a comparison group. The final steps in the process will be to develop recommendations identifying which practices are most effective in varied situations; and to disseminate the results both statewide and nationally.

Source and Amount of Funding:	Federal funds -	- \$230,000 (U.S. Election Assistance Comm.)
	State funds -	\$182,224 (state in-kind)

Level of Effort Devoted to Project:	Judd Choate – 0.1 FTE
	Judye Schneider – 0.05 FTE

Prime Applicant: Colorado Department of State

Technical Contact:Judd Choate, Director, Division of Elections<br/>Colorado Department of State<br/>1700 Broadway, Suite 200<br/>Denver, Colorado 80290<br/>303-894-2200<br/>judd.choate@sos.state.co.us

#### Period of Performance/Award Period: 5/01/2011-4/30/2012

#### Total Amount of Person Hours or FTE to be Devoted to the Project: .40 FTE

**How Projects Are Related:** The CORLA project is related in that it involves state and county election staff and the performance period is similar to the period proposed for the Colorado Overseas Voter Project. However, other than being pilot tested during the same Colorado elections, the projects are only tangentially related. The CORLA project focuses on implementing risk-limiting audits of all votes cast in an election, while this proposal is aimed at military and overseas voters only.

# G. Qualifications

Four CDOS staff members will have primary responsibility for overseeing, managing and implementing the project activities outlined in this grant application. Hilary Rudy, Senior Legislative and Policy Analyst for the CDOS Elections Division, will be the technical contact and project director. Trevor Timmons, CDOS Chief Information Officer, will be primarily responsible for implementing the project's voter interface activities, and will also serve as the technical consultant for the online voting and ballot on demand activities. Resumes detailing these individuals' qualifications may be found on the following pages. In addition to these key staff, Dr. Judd Choate, Director, Division of Elections, will provide high level oversight, guidance and direction for the Colorado Overseas Voter Project, and Judye Schneider, HAVA Budget/Policy Analyst for CDOS, will serve as the grant's financial manager. Brief descriptions of these individuals' qualifications are included below.

Judd Choate, Ph.D., J.D., is the State Elections Director for Colorado. He has a Ph.D. in political science from Purdue University and a law degree from the University of Colorado. Prior to joining the Colorado Department of State, he was an election law attorney at Kelly, Garnsey, Hubbell and Lass, LLC in Denver. As a former professor of political science at the University of Nebraska, Dr. Choate taught courses on campaigns and elections. Dr. Choate has written two books and several refereed articles on electoral and institutional behavior. He also served as the Director of the Nebraska Minority and Justice Task Force, where he successfully secured several major federal grants to support research on racial bias in Nebraska's court system.

*Judye Schneider* is the Help America Vote Act (HAVA) Budget/Policy Analyst with the Colorado Department of State, overseeing the over \$40 million in HAVA funds received by Colorado since 2004. Judye has a Masters of Arts degree from the University of Colorado, as well as over 20 years experience with the State in managing federal funds received from grants and contracts.

(b)(6)

# Legal Experience

# Colorado Department of State, Elections Division - Denver, CO

#### Senior Legislative & Policy Analyst

#### July 2010 – Present

- Manage legal and policy team of four to ensure legal support for all business units within the Division
- Analyze and interpret state and federal election law to develop and implement election policies, rules, best practices, other guidance
- Oversee state and federal complaint process to ensure timely review and response to election complaints
- Identify, analyze, and track legislative initiatives affecting the Division, and assist with drafting as needed
- Legal review of all training and policy materials prepared by the Division to maintain compliance with applicable laws
- Coordinate best practices working groups, including identiying county and Division participants, developing best practices documents
- Coordinate communication with federal and state agencies, local jurisdictions and their membership organizations to maintain effective productive working relationships
- Participate in national and state commissions, panels, and study groups concerning proposed or anticipated legislation and best practices
- Identify the need for and implement pilot programs to determine the viability of a proposed program
- Manage Division internship program including recruitment of qualified candidates, identification and assignment of projects, and mentoring/evaluating interns to further professional development

# SCORE Legal Analyst

- Legal and policy lead for implementation of the statewide voter registration system (SCORE)
- Develop, review, and present training materials on elections and the use of the statewide voter registration system that are consistent with state and federal law
- Assist with the development, testing, implementation, and administration of the statewide voter registration system specifically to ensure compliance with state and federal laws
- Assist in the development and review of standard forms and reports including those used by the statewide voter registration system
- Assist in providing technical and business process support to county users of the statewide voter registration system
- Participate in identifying, analyzing, drafting, and tracking legislative initiatives affecting the elections division, specifically those affecting the implementation and administration of the statewide voter registration system

#### April 2008 – July 2010

#### August 2006 – October 2007

- Manage rulemaking process including coordinate rule task force meetings, drafting and implementation of revisions and amendments to elections and campaign finance rules. coordinate hearings; maintain record, and submit timely filings
- Coordinate and attend military voting, campaign finance, and elections task force meetings
- Assist with legislative process including bill analysis, testimony preparation, and attending drafting meetings
- Assist with administrative hearings including rulemakings, petition protests, and elections/HAVA complaints
- Assist with the development and maintenance of elections forms to ensure compliance with statute and rules

# Legal Intern

Legal Analyst

- June 2006 August 2006, May 2005 August 2005
- Assist with management of rulemaking process including rule task force meetings, implementation of revisions and amendments to elections and campaign finance rules, coordinate hearings; maintain record, and submit timely filings
- Assist with administrative hearings including rulemakings, petition protests, and elections/HAVA complaints
- Assist with the development and maintenance of elections forms to ensure compliance with statute and rules

# **Professional Experience**

# Business to Business Marketing - San Diego, CA

# **VP** Operations & Business Development

- Manage hiring and employee relations including ensuring compliance with federal and state employment laws, interviewing and hiring, developing and implementing incentive and benefit programs, managing payroll, conducting performance evaluations and disciplinary hearings, and managing agency relationships
- Collaborate in the development and implementation of strategic marketing and operation plans to ensure growth, client retention, and employee retention
- Assist with the development, creation and distribution of sales and marketing materials
- Collaborate in development of comprehensive training of marketing representative staff including new hire, ongoing marketing skills development, industry vertical training tracks, and client product training
- Oversee client campaign account management including drafting and review of campaign agreements, development and maintenance of client relationships, accounts receivable management, development of marketing campaign notebook and product training program, ongoing campaign monitoring to ensure meeting of goals and client satisfaction

# October 2007-March 2008

#### August 2004 – May 2006

# Executive Assistant

- Right hand person to President in all aspects including draft correspondence, manage calendar, and special projects as assigned
- Attend High Tech Marketing Alliance luncheon and board meetings, draft and distribute meeting minutes, assist with management of of organization as necessary
- Assist with the development and implementation comprehensive company policies and procedures to improve organizational efficiency
- Offered and accepted employee status after three month temporary assignment expired

# Education

Thomas Jefferson School of Law – San Diego, CA Mesa State College – Grand Junction, CO Juris Doctor, May 2006 B.B.A., Management, May 2003

# Trevor Timmons (b)(6)

# Experience Colorado Department of State

# Chief Information Officer

Executive responsible for all information technology services for a state government agency. Budget, Staff, Strategic and Operational authority for the more than thirty members of the I.T. division of the one hundred-thirty person department.

- Formulates the agency's strategic plan, creates and manages to annual \$7 million budget.
- Project Director for successful deployment of a new statewide voter and elections system for all sixty-four counties of the state. This project, identified as a critical project by the Colorado CIO, was completed successfully and first used statewide in the 2008 Presidential Election.

# Colorado Department of State

# Deputy CIO/Director of Application Development

Managed the 1.T. Division of the department. Senior leader and manager responsible for software development activities of the agency. Managed the division's finances, including budget and capital and operating expenditures.

- Primary technical point of contact on legislative changes affecting the department; primary technical contact working with state legislative bodies, county offices, and private sector companies in the policy domains in which the department operates
- 1.T. Section Chairperson for the International Association of Commercial Administrators (2004-07); I.T. Manager of the Year, Colorado Information Management Association (2005)

# **Kroger MIS**

# Technical Project Lead, Senior Programmer/Analyst

Technical Project Lead and Server Development Lead for central I.T. group supporting 250+ retail grocery stores and four divisional offices.

- Technical Project Lead on Computer Assisted Ordering project; designed, managed, coded, tested and deployed system encompassing all aspects of stores ordering and receiving product.
- Server Development Lead on Advanced Retail Management System project; design, supervise and deploy system to post retail price changes and item changes to store point of sale systems.
- Led Kroger efforts to implement these two systems in thirty-seven new stores acquired by Kroger in a corporate acquisition of Fred Meyer Stores.

# Colorado Department of State

# Applications Programmer II

Design, construct, deploy and maintain a variety of computer systems used by employees and the public.

• Major projects included re-writing departmental accounting system; statewide voter registration system; developing complex printing system for department use.

# 1998 – 1999

1994 - 1998

2007 - Current

1999 - 2007

# Colorado Department of State

Auditor

Financial auditor for the Licensing and Enforcement Division

• Regulated charitable gambling activities in Colorado; conducted financial investigations, prepared evidence and gave testimony at hearings. Submitted recommendations for legal action against non-compliant licensed persons and companies.

# Education

Colorado School of Mines Bachelor of Science Engineering 1985 - 1991

1992 - 1994

# V. BUDGET PROPOSAL

- 1. Itemized Budget
- 2. Budget Narrative/Justification
- 3. Return on Investment Analysis

Budget item:	Estimated Cost:				
DIRECT COSTS:					
Ballot on Demand Printing	Materials:				
	Printers & software	Per unit cost			
	Q3 2011	Hart Tabulation	46	\$15,000	\$690,000
	Q3 2011	ES&S, Sequoia, Premier Tabulation	18	\$20,000	\$360,000
	2D barcode scanner				
	Q1/Q2 2012		8	\$750	\$6,000
	Labor Vendor (TBD):				
	Training/deployment	Included in printer cost above			
	Labor CDOS:	Delopment of on demand print option in SCORE			
		Total			\$1,056,000
OTHER DIRECT COSTS:			+		1
Online Ballot Delivery	_				
	Materials:	Software licensing and maintenance fees			\$200,000
	FY2011-FY2012				
	Labor Vendor(TBD):	Election setup per county			\$250,000
November 2011 state election	Q3 2011	Includes 40 counties			
June 2012 primary election	Q1/Q2 2012	Includes 64 counties		_	
November 2012 Presidential election	Q2/Q3 2012	Includes 64 counties			
	Labor county:	Ballot data setup and transmission, ballot proofing			
	Labor CDOS:	Coordination, VR list setup and transmission, ballot proofing			
<u></u>		Total			\$450,000

#### Notes:

One on demand printing unit will be deployed in every county to aid in meeting the 45day deadline. This will allow counties to eliminate risk of print vendor failure. We will also research auto duplication capability that may work with counties that have 500 or more UOCAVA voters.

**System to be developed/supported by vendor TBD.** Based upon initial information the bulk of the cost is anticipated to be for building the infrastructure. We anticipate a phased statewide rollout with many counties in the first wave for November 2011 and most likely the remainder for the June 2012 election. Based upon current knowledge, we expect costs for this project to be higher than ongoing costs. Our expectation is that ongoing costs will include per election build and much smaller annual licensing and maintenance.

#### 1. Technical Proposal

Catalog of Federal Domestic Assistance Number: 12.217

BAA number: H98210-BAA-11-0001

Title of proposal: Dallas County UOCAVA Enhancement

CAGE Code: DUNs Number:

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(b)(4)			

Applicant: Dallas County Elections Department

Sub Contractors: Election Systems and Software, Inc and Scytl USA LLC

# **Dallas County Elections Office Technical contact:**

Address:

2377 N. Stemmons Fwy, Suite 820

Dallas, TX 75207

Phone: (214) 637-7937

Fax: (214) 819-6301

eMail: Jesus.Martinez@dallascounty.org

# Dallas County Elections Office Administrative/business contact:

Name: Toni Pippins-Poole

Address:

2377 N. Stemmons Fwy, Suite 820

Dallas, TX 75207

Phone: (214) 637-7937

Fax: (214) 819-6301

eMail: <u>Toni.Pippins-Poole@dallascounty.org</u>

Period of Performance: September 2011 – December 2016

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#### 3. Technical Approach and Justification

# 3.1. Executive Summary

The Dallas County Elections Office is conscious of the challenges facing our military and overseas voters and is committed to growing and adapting our services and supporting technologies to meet their continuing needs. Dallas County's participation in the Electronic Absentee Systems for the Elections Grant initiative will allow us to continue efforts to research and evaluate innovative technologies and associated services that we believe will improve, and increase the successful level of participation within this valuable constituency group. The Dallas County Elections Office intends on addressing these challenges as well as others through the establishment of the UOCAVA System Enhancement Research (USE) Program.

The Dallas County Elections Office's key program objectives include establishing and successfully improving electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The Dallas County Elections Office also believes the efficacy of our efforts can be shared and will benefit other jurisdictions.

Considering Dallas County's background and current UOCAVA solution, we believe that working with ES&S and Scytl as well as academic researchers from Cal Tech University and the University of Utah will best address our unique requirements and result in the most effective, innovative, repeatable, documented, and sustainable solution for Dallas County. ES&S and Scytl have committed to providing a unique solution customized to fit the requirements of Dallas County.

Overall, we view the collaboration with ES&S and Scytl, and their electronic absentee balloting product – BALLOT*safe*, as the best solution to overcome and eliminate the UOCAVA barriers which now face the affected voters of Dallas County. Its robustness, flexibility, usability, and innovation will pave the way to ensuring that the number of ballots sent equals the number of ballots returned and successfully addressing our goals and objectives in the following section.

# 3.2. Goals and Objectives

# 3.2.1. UOCAVA System Enhancement Research (USE) Program Overview

The Dallas County Elections Office proposes a UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate in the ballot return process.

#### 3.2.2. Factors Achieved

The Dallas County Elections Office believes that our unique assets, capabilities, locations, and personnel through the UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl will foster and develop products and processes which will lessen the impediments that exist for the UOCAVA voter and will strongly address the Evaluation Factors stipulated in the FVAP EASE Grants program. For example, these factors are achievable through the deployment and use of the BALLOT*safe* solution complimented with customizations for Dallas County and

related research and analysis. Our research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

# 3.2.2.1. Significance

Knowing that research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate, the USE Program will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- Voter Registration BALLOT*safe* will work in coordination with any online voter registration system and through the use of tools and procedures will provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot Request BALLOT*safe* will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT*safe* to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.
- Absentee Ballot Delivery BALLOT*safe* will utilize the ballot data from any Dallas County election management system and deliver the precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT*safe* online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.
- Absentee Ballot Marking BALLOT*safe* provides an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write-ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.
- Absentee Ballot Return and Tabulation BALLOT*safe* will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT*safe* will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assists in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately through BALLOT*safe* and through email notifications.

# 3.2.2.2. Sustainable

The Dallas County Elections Office is focused on constructed cost-effective and sustainable solutions which successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in Dallas County's assessment of sustainability shown below.

The Dallas County Elections Office believes these factors are achievable through a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. Dallas County will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the USE Program. Further information can be found in the ROI analysis provided in the Budget Proposal.
- The program and solution will be **logistically sustainable**. The USE Program will seek to realize operational efficiencies over the current processes through the BALLOT*safe* technology which will provide a lower level of effort which can be sustained even with decreasing budgets. Examples of this include easier exchange of ballot and voter information between technology systems, less effort and cost in the delivery of ballots electronically, quicker processing of returned absentee ballots, and quicker and more reliable replication of ballots upon return.
- The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform which relies on advances in cryptographic protections, advances in Java based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

By selecting the ES&S/Scytl product offering of BALLOT*safe* Dallas County is ensured of a long term commitment from a vendor who has a long history of election experience and can continue to provide updates and enhancements to the product for many years to come. Furthermore, by incorporating the cost for the USE Program through the year 2016, Dallas County is ensuring a consistent and sustaining offering to its voters and election officials. Also, utilizing multiple election cycles to gather and analyze statistics and feedback will strengthen the USE Program's findings and allow for a greater impact and significance. Specifically, the Dallas County Elections Office expects to support the following through 2016:

- Maintain BALLOT*safe* services with ES&S and Scytl through an annual Right to Use License
- Ongoing research and evaluation of BALLOT*safe* for each election cycle
- Generation of Election Analysis and Assessment Reports (EAAR) after major elections

# 3.2.2.3. Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage which provides for the broadest impact to voters and election officials. Some advanced concepts which will provide greater impact to voters are:

- Sample Ballot The sample ballot feature of BALLOT*safe* allows voters the opportunity to access the jurisdiction's sample ballot before the election. Through the election official's interface, officials are allowed to publish campaign statements from candidates as well as additional information that will be available to voters in the sample ballot.
- News Feed BALLOT*safe* provides specific news feed to voters. The news feed is provided in a sidebar of the voter web site and includes news events generated by the local election official. As desired, the news feed may also be linked to FVAP or the jurisdiction's social media feeds.

- Accessibility BALLOT*safe* has been purposefully constructed to be in compliance with the applicable web accessibility standards and to provide an intuitive interaction when being understood or controlled through personal assistive devices. Below are the usability and accessibility standards which BALLOT*safe* follows:
  - Web Content Accessibility Guidelines (WCAG) 2.0
  - o User Agent Accessibility Guidelines (UAAG) 1.0
  - Section 508 of the US Rehabilitation Act, Web-based Intranet and Internet Information and Applications (1194.22)
  - NIST Accessibility and Usability Considerations of Remote Voting Systems, Draft – June 28, 2010

# 3.2.2.4. Strategic approach

The Dallas County Elections Office has presented a credible hypothesis and will provide a welldefined and appropriate plan to test that hypothesis. The plan is further defined in 3.3 Schedule and Milestones and the Management Approach, Section 4. We believe the hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

#### 3.2.2.5. Innovation

The USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The Dallas County Elections Office believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of BALLOT*safe*:

- Security. The groundbreaking cryptographic protocols inherent in BALLOT*safe* provide elections with the highest levels of security, in terms of voter's privacy, voter verifiability, election integrity, system availability, and access control. BALLOT*safe* provides security through the use of a physically secure data center, complete redundancy of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.
- Ballot Choice Barcode. BALLOT*safe* provides accurate and reliable automated remake of returned ballots with its ballot choice barcode feature. Using a barcode on a ballot generated through the voter's onscreen marking wizard, the ballot choice barcode can replicate the voter's selections onto the local jurisdictions optical scan readable ballot.
- Social Media Interaction. BALLOT*safe* provides mechanisms for the voter to interact with social media content (Facebook, Twitter, etc) through BALLOT*safe*. This is done through multiple concepts such as a Newsfeed and interactive sample ballots.
- FPCA barcode. BALLOT*safe* provides a feature whereby the voter can complete an FPCA through the BALLOT*safe* FPCA wizard with an absentee data barcode. This barcode provides for the automated exchange of the voter's information from the FPCA through an FPCA import module, and into the local voter registration processing queue. This reduces the need to manually enter voter information.
- UOCAVA community forum. With BALLOT*safe*, ES&S and Scytl have established and will maintain a pipeline of ideas, techniques and best practices of election officials and

their services for UOCAVA voters. This is done through a secure online data repository and message board.

# 3.2.2.6. Scalability

The USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGi. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of:

- Usage increases in the number of voters and number of ballots styles it can support;
- Impact changes to and increases in the types of voters and their requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality which it employs.

Furthermore, our agreement with ES&S and Scytl is to obtain all of the existing features and functionality of BALLOT*safe* regardless of our current need. With the ability to access and use features on an as needed basis thereafter, we are able to adjust our growth and use of the product in such a way that we can meet the demands of tomorrow as easily as the demands of today.

# 3.2.2.7. Collaborative

The Dallas County Elections Office has designed the USE Program to be a collaborative program involving key election technology providers – ES&S and Scytl, reputable academic researchers from Cal Tech University and University of Utah, and other election jurisdictions through a data and experience sharing portal in BALLOT*safe*. This consortium of election officials, election service and system providers, and researchers will collaborate together to address and improve the absentee voting process. To do this, we will use a six-sigma approach to improving existing business processes:

- *Define* the problem, the voice of the customer (i.e. the voter), and the project goals.
- *Measure* key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current processes based upon data analysis to create an improved, future state process.
- *Control* the future state process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

# 3.2.2.8. Cost Benefit Analysis

Each major component of BALLOT*safe* can separately, or in total, be evaluated for ROI against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

#### 3.2.3. Security Measures

The USE Program will provide administrative, technical, and physical controls to protect voter personal identifying information (PII) and sensitive election material. At a minimum, **administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by ES&S and Scytl through the BALLOT*safe* solution. First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls and where it is under 24/7 physical and application monitoring to ensure the security, health and integrity of the system around the clock. The infrastructure, including all hardware, software, and security controls are also monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software to be free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to seamlessly verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect voters' identifying information from ever being associated with their ballot selections.

# 3.3. Schedule and Milestones

The Dallas County Elections Office has identified the following as the initial schedule assuming an award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

# 1. Initiation and Planning Phase

Start Date: August 1, 2011 Duration: 45 days

The initiation and planning phase will initialize the project and introduce all stakeholders. During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown structure, statement of work with each sub-contractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

- a) Completion of Project Management Plan
- b) Completion of Quality Management Plan

# 2. Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

With the program stakeholders, this phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success in this area. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution amongst the stakeholders. The approach will lead into a detailed requirements gathering and specification development effort to capture the analysis into quantifiable measures necessary to improve the UOCAVA voting process. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of these will be addressed directly through BALLOT*safe* while others will be addressed through policy changes.

Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization

# 3. Technology Modernization

Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for the customization, activation, and outreach efforts in preparation for the first election and continuously through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase 2, BALLOT*safe* and other systems will be customized to address Dallas County's requirements such that UOCAVA voters are best supported.
- Voter Education During this phase, voters will be notified of the modernization and how it impacts them through multiple communication channels.

• Integration and Testing – The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters.

Milestones:

- a) Technology Modernization Completion Presidential Preference Primary
- b) Technology Modernization Completion Primary Election
- c) Technology Modernization Completion General Election

### 4. Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the USE Program to enhance the technology and services provided to UOCAVA voters. Each progressive election will include greater enhancements to achieve the incremental goals established in phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan.

Milestones:

- a) Presidential Preference Primary Completion
- b) Completion of Election Analysis and Assessment Report Presidential Preference Primary
- c) Primary Election Completion
- d) Completion of Election Analysis and Assessment Report Primary Election
- e) General Election Completion
- f) Completion of Election Analysis and Assessment Report General Election

#### 5. Final Analysis and Reporting

Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase will collect the relevant data from the 2012 General Election(s) as well as reports and data from the previous elections. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of USE Program Final Report

# 3.4. Reports

# 1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Dallas County Elections Office will prepare quarterly programmatic and financial progress reports. For the purposes of the USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

The financial progress report provided will be in compliance with the financial reporting requirements of the Federal Government and this grant announcement.

The following programmatic and financial progress reports will be prepared:

- a. Fourth Quarter 2011 Programmatic and Financial Progress Reports
- b. First Quarter 2012 Programmatic and Financial Progress Reports
- c. Second Quarter 2012 Programmatic and Financial Progress Reports
- d. Third Quarter 2012 Programmatic and Financial Progress Reports
- e. Fourth Quarter 2012 Programmatic and Financial Progress Reports
- f. First Quarter 2013 Programmatic and Financial Progress Reports

# 2. Data collection points reports

There will be several data collection point reports prepared throughout the USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned

- Types and number of problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

- a. Presidential Preference Primary EAAR
- b. Primary Election EAAR
- c. General Election EAAR (will be incorporated in the Final Report)

# 3. Final Report

The USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

# 4. Management Approach

# 4.1. Introduction

ES&S and Scytl have formed a strategic alliance to provide the necessary technology and tools to allow Dallas County to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. The Dallas County Elections Office intends on using an organized project management methodology with ES&S and Scytl to achieve these goals in a sustainable and organized way. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, local election personnel, and election officials from other jurisdictions. This cooperative of the Dallas County Elections Office, election officials, election service and system providers, and researchers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved, future state process.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

# 4.2. Project Organization

# 4.2.1. Project Director

The Dallas County Elections Office will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

# 4.2.2. Project Steering Committee

The project steering committee will be comprised of the project director, project manager, key personnel from ES&S and Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with the strategic goals and objectives and key factors in Section 4.4.

# 4.2.3. Project Manager

Election Systems and Software (ES&S) will serve as project manager for the USE Program. ES&S maintains a global team of PMI certified Project Management Professionals and Elections Experts with specific experience in election solution implementations. The ES&S Project Management Office (PMO) has over 285 years of combined elections experience, which has allowed the PMO to develop election specific best practices to accommodate the unique and challenging aspects of the election industry. This team of professionals is trained to manage projects pursuant to the Project Management Institute's project management principles. Each Project Manager is supported by a team of Technical Engineers, Subject Matter Experts, and Support Specialists to assure that each aspect of the project is managed effectively and efficiently.

# 4.2.4. Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project manager and will be responsible for data collection and analysis. The research team will form hypotheses and will report findings. All research products will be validated with the steering committee which will prepare the conclusions.

# 4.3. Project Resources

# 4.3.1. ES&S

ES&S and Scytl will work collaboratively to leverage the strengths of each company for the purpose of installing and supporting the BALLOT*safe* system. Specifically, ES&S will provide development expertise in the areas of system integration for voter registration and election management systems. The ES&S training department will provide instructional information and facilitate training activities. The ES&S support group will install and coordinate the usage of BALLOT*safe* with Scytl subject matter experts. The ES&S Helpdesk will provide 1<sup>st</sup> and 2<sup>nd</sup> tier level support to the State and local election officials and ES&S and Scytl will work jointly to provide any 3<sup>rd</sup> tier level support required.

# 4.3.2. Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the USE Program, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department.

#### 4.3.3. Academic Researchers

The USE Program will utilize outside academic researchers – Michael Alvarez and Thad Hall – for some of the research and analysis efforts. In their academic careers, they have focused on elections, voting behavior, election technology, and research methodologies. The Dallas County Elections Office believes that the addition of these experts will enhance the quality of the program's research and assist in tackling some of the prevalent challenges facing democratic elections.

# 4.4. Project Strategic Goals

The UOCAVA System Enhancement Research (USE) Program will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

# **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.
- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), Dallas County will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

**Plan:** Implement tools and services provided by ES&S and Scytl in a phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving Dallas County's capabilities to support our overseas voter population.

# 4.5. Research Methodology

The USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

# 4.5.1. Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis, considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

#### 4.5.2. Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies to better meet their needs. As a starting point, the Dallas County Elections Office knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens

who are located in remote locations. In addition, although active duty military members complete Federal Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, Dallas County citizens are likely to experience widely divergent voting experiences depending upon their country of residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries also varies widely. The aforementioned are but a few of the well known challenges faced by our overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

# 4.5.3. Technology Enhancements

While Dallas County is already aware of many areas where BALLOT*safe* can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of Dallas County's voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT <i>safe</i> will work in coordination with online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on time.
Absentee Ballot Request	BALLOT <i>safe</i> will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT <i>safe</i> to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.	Traditional postal delivery and return of ballot requests introduce unpredictable delays into the process which delay future steps. Voters can often forget when a ballot request is due for an election or may complete it incorrectly.	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them correctly.
Absentee Ballot Delivery	BALLOT <i>safe</i> will provide online ballot delivery of precinct specific ballots via its secure and accessible online portal.	Traditional postal delivery of ballots is lengthy and	The electronic delivery of ballots through a secure

	Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT <i>safe</i> online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	unpredictable. It is also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	internet based portal will provide consistent access to eligible voters which will improve the successful completion and return rates of ballots.
Absentee Ballot Marking	BALLOT <i>safe</i> will provide an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write- ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.	Some absentce voters have difficulty understanding ballot content and completing ballots correctly. Voters with disabilities face significant problems marking paper ballots. Furthermore, manual duplication is often required of ballots which are returned. When a voter uses the onscreen marking wizard, BALLOTsafe provides a mechanism for the automated replication onto an optical scan ballot.	Voters who use an intuitive and accessible onsereen marking interface will have a higher probability of completing the ballot correctly which will increase the number of ballots returned successfully. The ballot replication mechanism with BALLOT <i>safe</i> will provide greater operational efficiencies in the return processing of the ballot.
Absentee Ballot Return and Tabulation	BALLOT <i>safe</i> will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT <i>safe</i> will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assist in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately upon processing through BALLOT <i>safe</i> and through email notifications.	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their ballot is returned and if it was accepted. Furthermore, without automated interfaces, there are delays in the processing and tracking of ballots.	The use of an online electronic portal to provide correct return information and return documents will improve the case and rate of successful return of ballots. Automated interfaces and the use of barcodes will shorten the processing delay and shorten the time it takes to provide tracking information to voters.

### 4.6. Performance Management

# 4.6.1. Performance Management Approach

To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the USE Program goal and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- To manage the project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 4.4. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

#### 4.6.2. Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success
Improve the rate of completed UOCAVA voting transactions from registration to ballot return.	At each step in the absentee voting process, the number of voters who complete each phase of the process increases. This will be measured on a per election basis, comparing previous election of that type to the current election. For example, the 2012 Primary Election will be compared with the 2008 Primary Election.
Increase the percentage of UOCAVA voters participating and voting in Federal elections.	For each Federal Election, there is an increase in percentage of UOCAVA voters who participate in at least one portion of the voting process.
Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.	Based on a comparison of the average failure rates for each stage in the absentee voting process with the failure rates of the current election, there is a decrease in the failure rate in each stage.
Provide tools and services that can benefit other jurisdictions.	The solution provided supports the legal, procedural, and technical requirements of other jurisdictions.

Provide security measures to protect users' personal identifying information and any transmitted election material.	Data collected through system audit logs, internal auditing, and interactions with voters does not indicate that any user's personal identifying information or sensitive election material was compromised in any way.
Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives	

#### 4.7. Risk Management

#### 4.7.1. Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- Risk identification. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis**. Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- Commence at the Project planning stage, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

- **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.
- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - The risk owner who is the person responsible for managing the response plan
  - o The risk response strategy that will be used
  - The description of the mitigation or contingency plan
  - Any stakeholders impacted by the risk
  - The cost of the risk response
- **Risk Mitigation plans**: This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

# 4.7.2. Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated against.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- e. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

# 4.8. Current and pending project proposal submissions

# N/A

Title of proposal and summary:	N/A	
Source and amount of funding:	N/A	
Percentage of effort devoted to each proj	ect	N/A
Identity of prime applicant:		N/A
List of subcontractors:		N/A

Technical contact:

Name:	N/A
Address:	N/A
Phone:	N/A
Fax:	N/A
eMail:	N/A

Period of Performance:	N/A
Award period:	N/A
Award amount:	N/A
Man months:	N/A

Relationship (if any) with the current request: N/A

### 4.9. Qualifications

#### 4.9.1. Introduction

To assist personnel from Dallas County, the Dallas County Elections Office has selected ES&S and Scytl to provide operational, research and technology support with their key personnel list below. Dallas County believes ES&S and Scytl have the best product and personnel to provide the services and support sought for the EASE grant execution in Dallas County.

#### 4.9.2. Key personnel

#### **Dallas County Elections Personnel**

- Toni Pippins-Poole, Interim Elections Administrator
- C.K. Farquhar, Early Voting Manager

#### ES&S and Scytl Personnel

# Thomas H. Ferguson, National Sales Director, Electronic Ballot Access, Election Systems and Software

Thomas Ferguson is currently serving as the National Sales Director, Electronic Ballot Access and an Election Product Specialist for ES&S. He has approximately ten years of government management experience as the Director of Elections for the Office of the Secretary of the State of Connecticut. Prior to taking the position with the state, Mr. Ferguson served as the Registrar of Voters for the Town of Manchester, Connecticut for six years. Additionally, he is a pastpresident of the National Association of State Election Directors. During his tenure with the Secretary of the State, he was the Project Manager for the development and implementation of the Statewide, Centralized Voter Registration System. Mr. Ferguson was also the Project Manager for the development of Connecticut's browser based Campaign Finance Information System, as well as systems that house and manage the Connecticut Statement of Vote, Annual Election Calendar and the certification criteria for Connecticut's chief polling place officials. He has an extensive elections and project management background from his 25 years of work and experience in local and state elections.

#### Peter M Zelechoski, MBA-TM, CISSP, CISA, Election Systems & Software

Mr. Zelechoski has 9 years experience in the voting systems business sector with experience at county and state levels (US) and in international countries defining, customizing, and deploying voting systems, and operating voting systems/machines in elections. Mr. Zelechoski has experience as president, board, committee chair and committee member levels for large and small non-profit and not-for-profit groups. With 30+ years experience in computer systems, he has hands-on experience with data interchange in financial, business, and election applications and as an architect for computer systems integration across platforms, networks, security boundaries. Mr. Zelechoski is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), a member of IEEE PI622 Voting Systems Electronic Data Interchange standards workgroup, and a member OASIS EML task group

(Election Markup Language). He has a Master of Business Administration in Technology Management.

#### Paul Miller, Business Development Manager, Scytl USA, LLC

Mr. Paul A. Miller, a former State and County Elections Official, is a highly qualified Project Manager, Elections Subject Matter Expert, and Technologist with more than 30 years'+ experience in technology and software development industries, foremost being in State and County Government Elections. He has been called upon by the EAC time and again, to provide Election Subject Matter expertise to panels, workshops, working committees, and testimony before the EAC commissioners. He was selected by the National Association of State Elections Directors (NASED) to serve as one of two NASED representatives to the Technical Guideline Development Committee (TGDC). The TGDC is a small panel of national experts tasked to work with the EAC and NIST to draft next generation voting systems standards.

Mr. Miller's election related experience has made him a nationally known subject matter expert within the elections community. Beginning with his tenure as Assistant Elections Superintendent-Data Processing in King County to Senior Technology/Policy Analyst at the Washington Secretary of State, he has gained a comprehensive knowledge of County Administrative Processes, Election Processes and Procedures, State and local Voter Registration Databases, Voting Systems, State Certification procedures, the Federal Testing and Certification Processes, Voluntary Voting System Guidelines and Federal and State Election Statutes. He has led innovative changes to county elections processes, most notably the most extensive use of its day in the nation of high-speed scanning to sort, process, and validate signatures in the absentee return ballot processes. He led the state's efforts to completely modernize its petition/signature checking processes, upgrade its voting system certification program in a high-visibility environment, and develop the state's HAVA- compliant Voter Registration System.

After being the state project manager for the 2010 implementation of U.S. Federal Voting Assistance Program's Electronic Voting System Wizard project in Washington state, Mr. Miller joined Scytl as Business Development Manager in April 2011.

## Aaron Wilson, Project Engineer, Scytl USA, LLC

Mr. Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

## Thad E. Hall, Ph.D. (Researcher)

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* 

(Princeton University Press) and *Abortion Politics in Congress: Strategic Incrementalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

#### R. Michael Alvarez, Ph.D (Researcher)

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, *New Faces, New Voices: The Hispanic Electorate in America*) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal *Political Analysis*, and co-director of the Caltech/MIT Voting Technology Project.

# Dallas County, Texas Budget

Under the USE program, BALLOT*safe* will be offered by ES&S-SCYTL as a software as a service (SaaS) model. This model has several price components: Activation and Implementation Services Fees, Annual Right-To-Use License and Service Fees during the Research Program, and ongoing Right-To-Use License Fees and Per Ballot Processing Fees after the Research Program is completed.

For the initial Research Program, which includes the 2012 Election Cycle, the following deliverables will be provided:

Activation and Implementation Services System Activation & Initial configuration	Software License and Services - 2012 Right-to-use license of BALLOT <i>safe</i>
Definition of specifications	Election Specific System Configuration
Customization to meet specifications	Secure Primary and Backup Hosting
Installation and deployment	Help-desk / Technical Support
Integration with existing EMS	Enhancements, New Releases & Upgrades
Integration with existing VR	Account Management
Training & Documentation	
Project management	

#### Budget for the participation in the USE Research Program

The budget of Dallas County, TX for the participation in the USE Research Program is \$211,715.00, as set forth in the table below. This budget includes the Activation and Implementation Services and Annual Right-To-Use License and Service Fees through the 2012 General Election Year.

Description	Fee
Activation and Implementation Services:	
Activation, Configuration, Customization, and Documentation	\$95,500.00
System Integration	\$40,000.00
Acceptance Testing	\$10,000.00
Project Management and Research Support	\$23,625.00
Training and Documentation	\$7, 875.00
<b>Total Activation and Implementation Services</b>	\$177,000.00
Right-to-use license of BALLOT <i>safe</i> , Secure Primary and Backup Hosting, Help Desk/Technical Support, Software Maintenance and Support for all elections through Nov 2012	\$41,875.00
Account Management and Research Data Support	\$33,625.00
Election Specific System Configuration	\$6,300.00
Total Annual License Fees and Services - 2012	\$81,800.00
Total Fees	\$258,800.00
Less Discount	\$(51,760.00)
BallotSafe Fees, net of Discount	\$207,040.00
ES&S Okidata 9650 Ballot on Demand Printer	\$4,675.00
Total Fees, net of discount	\$211,715.00
(All prices are exclusive of any applicable taxes, all of which are the responsib	ility of the County)

## **Ongoing Fees**

Following the conclusion of the Research Program, Ballot*Safe* is available for use in supporting UOCAVA voters, as well as disabled voters and absentee-by-mail voters. The ongoing Annual Software License and Service Fees will consist of a fixed price per year and a per ballot processing/duplication fee as follows.

Description	UOM	2013	2014	2015	2016
Annual Right-To-Use Software License	License	\$52,900.00	\$55,547.00	\$55,547.00	\$58,327.00
					1
Outgoing Ballot Processing Fee	Each	\$1.00	\$1.05	\$1,05	\$1,10
Incoming Ballot Processing Fee	Each	\$0.25	\$0,26	\$0,26	\$0,27
Automatic Ballot Duplication Fee	Each	\$0,75	\$0,79	\$0,79	\$0,83

#### The above fees entitle the County to the following:

- Right-To-Use License
- Upgrades and Enhancements from Product Roadmap and Bug Fixes
- Help Desk & Troubleshooting Support
- Primary and Backup Secure Hosting
- Research Data and Support
- Account Management

Should Dallas County require additional Training, Election Specific System Configuration, or other Services not included in the Ongoing Fees table above, those services will be subject to a separate charge to be agreed to by the parties.

#### **Total Initial and Ongoing Fees**

The total fixed fees budget (excluding Ballot Processing/Duplication Fees) for Dallas County, TX for participation in the USE research program through the 2016 General Election Year is \$438,711.00, including the Ballot on Demand Printer. It is our understanding that all years through 2016 may be funded by the EASE grant program sponsored by FVAP. Should Dallas County receive 100% funding for the fixed fees of \$438,711.00 and the Ballot Processing/Duplication Fees as calculated by the Dallas County there would be no additional County Funds required for this program other than those required as a result of underestimating the Ballot Processing/Duplication Fees, or other services not included in the ongoing fees.

#### Return on Investment Analysis for the USE Research Program

Due to the enhancements and research being provided and conducted through the UOCAVA Systems Enhancement Research Program, cost and time savings will be realized for multiple costs items associated with the absentee voting process. Overall, the easier process and technology of the USE Program will enfranchise more voters such that the number of ballots processed and registrations will increase.

• Return on Investment – postal mail of ballots

Currently, ballots delivered by postal mail incur per-election personnel and capital expenditures to print, package, and mail the ballots. By providing electronic ballot delivery, established in a onetime development and integration effort, there will be less costs over time as the cost to maintain the initial expenditure is much less than the per-election cost now incurred to print and mail ballots to the UOCAVA voters.

• Return on Investment – email of ballots

To support the email of ballots, it requires a significant per-election time investment from an IT official in the office to attach PDFs and address each email. Currently, Dallas County estimates that it takes 1 hour to the preparation and delivery of an emailed ballot. By providing electronic ballot delivery via an online website, established in a onetime development and integration effort, there will be fewer costs over time as the cost to maintain the initial expenditure is much less than the per-election cost now incurred to print and mail ballots to the UOCAVA voters. Once ballots are finalized, they can be provided to all voters within the same day. This was not possible before.

• Return on Investment – duplication of ballots

Currently, ballots returned by voters who receive them by email or fax must be duplicated manually. This normally takes 2 or more people at least 5 - 15 minutes to duplicate one ballot. This accounts for the time it takes to duplicate and verify correct duplication in front of witnesses. The automated ballot duplication provided by BALLOT*safe* provides an automated work flow which reduces the number of people and time it takes to duplicate a ballot. This process also reduces the errors which are introduced and expedites the accounting which must be done. This saves time and money invested in employing many permanent and temporary election workers to perform this task.

• Return on Investment – communication with voters

The online presence of BALLOT*safe* will provide UOCAVA voters the ability to retrieve jurisdiction specific communication in the form of messages, online chat, and help menus. This will reduce the amount of support required by dedicated personnel and, thereby, reduce per-election cost associated with providing assistance.

These cost and time savings will add up to a positive return on investment. Specifically, the jurisdiction will save more money over time, by reducing per-election costs, than the amount of the initial investment through the grant. The research and analysis conducting during the grant period will collect real statistics and provide a quantitative ROI analysis.

#### TECHNICAL PROPOSAL

#### Catalog of Federal Domestic Assistance Number: 12.217

#### BAA Number: HQ0034-FVAP-11-BAA-0002

Title: Improving UOCAVA Voter Experience through Socially Networked Software

Cage Code: (b)(4)	
DUNs: (b)(4)	

District of Columbia Board of Elections and Ethics,

with its development partners Verafirma and Election Management Consulting Services

Technical contact:

Paul Stenbjorn Director Information Services, DC Board of Elections & Ethics (202) 727-1911 <u>pstenbjorn@dcboee.org</u> 441 4<sup>th</sup> St. NW, Suite 250 N Washington, DC 20001

Administrative contact: Rokey Suleman Executive Director, DC Board of Elections & Ethics (202) 727-2525 <u>rsuleman@dcboee.org</u> 441 4<sup>th</sup> St. NW Suite 250 N Washington, DC 20001

August 2011-November 2012

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## **Technical Approach and Justification**

#### **Executive Summary**

According to studies published by the Federal Voting Assistance Program (FVAP) following the 2008 election, voter failure among uniformed and overseas voters was most frequently attributed to errors in the transmission of ballots between UOCAVA voters and their local boards of elections in a sufficient time for the ballots to be processed and counted<sup>1</sup>. The study concluded that the FVAP website and electronic resources may help to streamline the absentee voting process.<sup>2</sup> To assist in FVAP's goal of providing solutions to ease the burden on military and overseas absentee voters, the District of Columbia Board of Elections and Ethics (DCBOEE) intends to partner with Verafirma, a California-based nonprofit corporation to design and deploy an application that allows voters to access a cloud based version of both the FPCA and the DCBOEE's absentee ballot application from their touch screen computing devices (e.g. iPad, Android tablets). Voters will be able to complete the forms using these devices and transmit the data and a PDF of the application to the DCBOEE. The information DCBOEE receives will be in an electronic format that integrates with its existing voter registration software to allow for faster, more accurate processing of application data.

The program is a modular application, already deployed and tested by Verafirma and will be offered to DCBOEE at little or no cost apart from the integration into DCBOEE's existing systems. Once deployed, the application can be hosted on a variety of different websites and social media platforms. By leveraging the viral nature of cloud hosted applications, DCBOEE intends to empower candidates, advocacy groups and other governmental entities to deploy this application and increase the programs exposure among UOCAVA voters.

Using specified touch screen devices, voters may digitally sign the forms and the DCBOEE will accept them as a valid signature—essentially eliminating the need for UOCAVA voters to print and mail the forms via regular post.<sup>3</sup> The goal of the pilot program is to develop, deploy and test the application and the data processing system from August through October with final deployment available November 1, 2011 to ensure that ballots are available to eligible UOCAVA voters more than 45 days before the April 3, 2012 primary election in the District. Because the digital transmission of the data removes human error caused by illegible handwriting and data entry errors, DCBOEE will be able to transmit ballots more quickly and more accurately, thus allowing UOCAVA voters more time to complete the ballots and return them. The digital entry of information will drastically reduce the number of ballots returned to the DCBOEE as undeliverable mail.

<sup>&</sup>lt;sup>1</sup>18<sup>th</sup> Report: 2008 Post Election Survey, Report by the Undersecretary of Defense, March 2011 pg. v. <sup>2</sup>ld. at viii

<sup>&</sup>lt;sup>3</sup> During the pilot program, participating voters will also be asked to print and submit hard copy forms to the DCBOEE to ensure accuracy in processing.

#### **Goals and Objectives**

## DCBOEE will deploy a cloud based FPCA application that electronically transfers information from the UOCAVA voters to the Board of Elections that reduces the number of FPCAs and absentee ballot requests returned as undeliverable mail.

During the 2008 election cycle, 1.4% of voting failure among UOCAVA voters occurred in registration or absentee ballot application failures, another 7.0% in ballots being returned as undeliverable, 78.2% in ballots transmitted but not returned at all or in time and 13.4% were cast but not counted.<sup>4</sup> FVAP believes that the majority of voting assistance resources and efforts therefore should be applied to addressing the issue of ballot transmission failure. The process by which UOCAVA voters apply for and receive an absentee ballot has several steps which provide potential for delay and error. DCBOEE's proposed system seeks to address the problems of ballot application and transmission at several steps of the process. First, it will provide an exportable and user friendly interface through which UOCAVA voters could access and complete the FPCA or the DCBOEE absentee ballot application. The application will lead voters to a fillable PDF form which they can complete using their touch screen devices. This will go far to eliminate handwriting errors and provide clear and readable identification and address information.

Second, it will allow voters to digitally sign the form using their finger or a stylus. This digitized signature can be accepted as valid under the Uniformed Electronic Transaction Act<sup>5</sup> and will eventually replace the need for absentee voters to print and transmit the ballot through regular mail. Finally, the application will transfer the data immediately over the Internet which will greatly eliminate the time it takes to send ballots overseas to local state election boards and will allow the boards of election to quickly process the application and send a ballot to the voter.

Ballot Request Date	Total Voters	Ballots returned	Ballots not returned
<30 days before	102	58	44
election			
30-45 days before	1239	418	821
election			
45 + days	44	32	12

Rates of Return by Date of Ballot Request (November 2010 General Election)

Statistics show that the block of voters with the highest rate of return are those voters who applied for and received their ballots earliest, therefore, if a system exists to speed up the process, it may be able to address the rate of return within the 30-45 day window. FVAP indicates that UOCAVA voters need their absentee ballots sent to them closer to 60 days before the ballots are due in the local election office to provide voters the proper amount of time for completion and submission<sup>6</sup>. By providing a faster processing time for the application and transmission of the absentee ballot, UOCAVA voters can easily apply for the ballot well in advance and receive their

<sup>&</sup>lt;sup>4</sup> 18<sup>th</sup> Report of 2008 Post election results, page vi.

<sup>&</sup>lt;sup>5</sup> D.C. Official Code §28-4901 et. seq.

<sup>&</sup>lt;sup>6</sup> 18<sup>th</sup> Report 2008 Post Election results, pg vii

ballots more quickly. In general, military voters are a more mobile population—frequently changing address every two to three years with interruptions for individual or unit deployments and temporary training. In light of this, FVAP recommends that all UOCAVA voters submit new FPCAs annually, at every change of duty station and before and after every overseas deployment.<sup>7</sup> This application will make the process of completing the FPCA easier and thus increase the rate of communication between UOCAVA voters and their local election offices.

The system design process is twofold. First, the DCBOEE through its partners, Verafirma and Election Management Consulting Services, LLC (EMCS), will obtain the core system used to distribute and collect data for FPCA and absentee applications, hosted by Verafirma in a SAS70 Type II secured facility with redundant hardware, power and Internet connectivity. Verafirma will work with DCBOEE to tailor the application to mirror the look and feel of the DCBOEE website and to distribute the application to voters using 128-bit SSL encryption. DCBOEE then intends to offer the application as a pluggable gadget to advocacy organizations, military organizations, campaigns and other citizens or citizen groups interested in informing UOCAVA voters. Preliminary DCBOEE tests indicate that the larger touch screen devices, such as the iPad and the use of a stylus to capture signatures had a higher success rate in capturing accurate signatures than smaller devices like a smartphone. As a result, initial tests of the application's success will focus on iPad and other tablet technology. Once the PDF is completed digitally, it will be encoded and sent to a specified secure e-mail account maintained by the DCBOEE. The PDF documents will be embedded with a text data file containing all form contents entered by the voter.

Once the form has been transmitted digitally from the user's handheld device, the DCBOEE will inspect each PDF package received and will extract text files from each of the PDF documents and store these files on its secured server. The PDF documents will then be attached to voter records in the Integrity voter registration management system. EMCS, which currently manages the Integrity system, will create an automated data management routine using SQL Server Integration Services (SSIS) to parse and import the data from each text file and import it into the voter registration system. From there, FPCA data will be evaluated to establish voter registration status of the voter (i.e. voter not registered, active, inactive or cancelled). If the voter is not currently registered, voter data will be populated in the queue of pending voter registrations. Once signature verification is completed-either by acceptance of digitized signature on PDF or from receipt of paper FPCA form— the voter will be made active and an absentee request record will be created. When the absentee ballot request has been approved, DCBOEE will mail a ballot to the voter or provide the voter with an electronic link to the ballot in the next absentee ballot processing batch. The returned FPCA digital document or mailed paper document will be electronically attached to the voter's record. In the District of Columbia all returned absentee ballots, whether mailed or emailed, are required to be accompanied by a signed attestation by the voter.<sup>8</sup> All absentee ballot envelopes received by mail are scanned and recorded as received. Signature panels on the absentee ballot envelopes are digitally scanned and stored as part of the absentee ballot record. These digitally captured signatures are compared to other digitally captured signatures on file within the voter's registration record to validate voter's

<sup>&</sup>lt;sup>7</sup> Id. at 15.

<sup>8 3</sup> DCMR §717.7 (h)

identity. Use of the Verafirma digital signature capturing technology will introduce an additional digitized voter signature to this confirmation process.

# The application provides a sustainable, exportable and user friendly solution to the absentee voting process at a low cost and using a technology that is increasingly more available to military voters.

The costs for deploying this solution will be low. The principal vendor, Verafirma, is making its technology platform available to the DCBOEE at no cost aside from implementation costs. The costs associated with the proposal are limited to the implementation and the deployment of the "back office" function, specifically the redesign of the *Integrity* system to communicate with the Verafirma application. The majority of costs will go to integrating data received through the Verafirma system into DCBOEE's exiting voter registration/absentee ballot processing system. Once the system is operational, the cloud based application provides a scalable platform that could gain wider adoption. Eventually, the use of a standardized data format for the collection of voter registration data can facilitate the use of a common data format for all voter registration data. Most importantly, the application interface is user friendly and will make the process accessible to UOCAVA voters.

The very nature of the technology is easily exportable. Cloud based technology allows access from any handheld device. Furthermore, cloud based technology and handheld computing is a rapidly growing area of technology gaining wide use within private and public sectors as well as the military. Military leaders currently are working with software developers to find ways to use iPads and other tablet technology to improve troop efficiency.<sup>9</sup> Deployed personnel are younger, more mobile and more likely than the population as a whole to embrace touch screen technology. Developing a suite of software tools that utilizes familiar and accessible technology will increase the likelihood of UOCAVA voter participation.

# Transfer of FPCA data electronically via cloud technology using leading data encryption technology will provide a stronger level of protection of UOCAVA voter's personally identifiable information.

Using proven data encryption technologies will provide an acceptable level of risk in obtaining complete, unaltered data. Further risk mitigation strategies will be developed in concert with Verafirma and the DCBOEE will publish these strategies as part of its implementation plan.

<sup>&</sup>lt;sup>9</sup> http://www.army.mil/article/36178/army-apple-meet-to-discuss-hand-held-solutions-for-soldiers/

Verafirma has a great deal of expertise in the management and deployment of secure data across distributed networks and will employ the following security protocols:

Data Center Security

- State-of-the-art, SAS70 Type II secured facilities with redundant hardware, power and Internet connectivity.
- 24 x 7 x 365 onsite security
- 2 layers of controlled data center access
- 24 x 7 onsite systems administrators / NOC

## Operational Security

- SAS70 Type II certified data center
- Systems access logged and tracked for auditing purposes
- Proactive application and system vulnerability testing

## Application Security

- Full 128-bit SSL encryption for all mobile and web communication, documents and data
- Pure web application, no client downloads required
- Timed session IDs uniquely identify each signer
- Proactive application and system vulnerability testing

## Transaction Security

- Full 128-bit SSL encryption for all communication, documents, and data
- Multi-factor authentication for document signing
- Detailed audit trails generated for all e-signed documents
- PDF documents digitally signed and certified

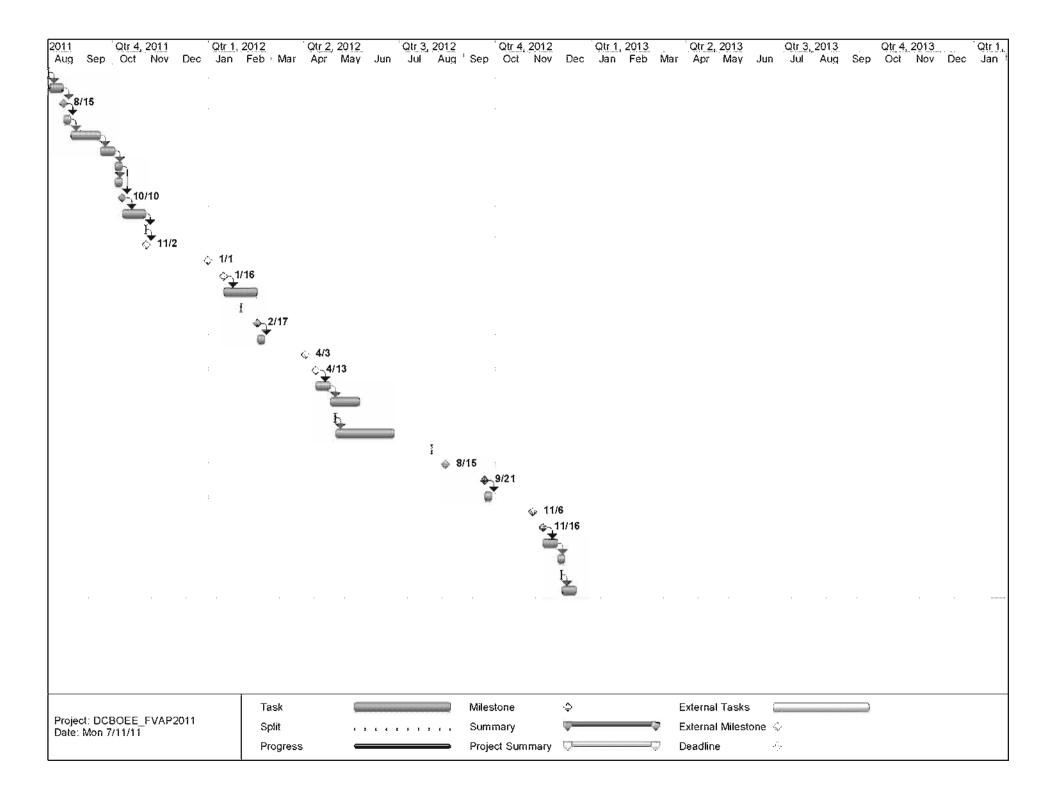
DCBOEE will also provide protection from fraud by individually validating the data it receives against existing voter data. Voters not previously registered will still be subject to statutory voter ID requirements, specifically, voters previously registered must provide some form of signature for attestation and identification purposes.

## Schedule and Milestones

DCBOEE intends to begin development and implementation of the system as soon as possible to complete the necessary programming and testing. The goal is to ensure that the application is available for use by UOCAVA voters to ensure that the ballots are available more than 45 days before the April 3, 2012 primary election. With this in mind, DCBOEE has developed the following schedule.

See task list on next page.

	0	'Task Name i	Duration	Start	Finish Predecessors	
1	1	Develop agreement with EMCS and Verafirma	i day	Mon 8/1/11	Mon 8/1/11	I
2		Layout FPCA forms and DC absentee application forms in PDF format for cloud distribution	10 days	Tue 8/2/11	Mon 8/15/11 1	t i
3		Deployment of cloud based forms in Verafirma platform for system testing	0 days	Mon 8/15/11	Mon 8/15/11 2	- î
4		Security testing penetration testing of cloud based system	5 days	Tue 8/16/11	Mon 8/22/11 3	
5		Development of back end secure email file processing system to receive PDF's with embedded information	20 days	Tue 8/23/11	Mon 9/19/11 4	
6	i	Test processes for acceptance of PDF documents and receipt of text files	10 days	Tue 9/20/11	Mon 10/3/11 5	- 1
7		Test file transmission of data files from cloud based system to DCBOEE servers	5 days	Tue 10/4/11	Mon 10/10/11 6	
8	i	Remote access test of cloud based system	5 days		Mon 10/10/11 6	- 1
9		Initial deployment test of importation of text files into voter registration system		Mon 10/10/11		- 1
10		Structured test of social network deployment of cloud based system	16 days	Tue 10/11/11	Tue 11/1/11 9	
11	4	Programmatic and Financial Report 1	1 day	Wed 11/2/11		- 1
12	1	Final Deployment of production system	0 days			
13	-	Notice to voters posted online and in social media	0 days	Sun 1/1/12		
14	0.00	Application available for voters' use	0 days	Mon 1/16/12		
15	100	Initial reporting period for voter's system use	24 days	Mon 1/16/12		I
- 24	1.1	Programmatic and Financial Report 2	1 day	Wed 2/1/12		- 1
17	1.0	45 day deadline for ballot mailing for primary election	0 days	Fri 2/17/12		
18		Reporting of FCPA submission by deadline	5 days	Fri 2/17/12		- 1
19	ine and	Primary election date	0 days	Tue 4/3/12		
		,	,	Fri 4/13/12		
20 21	<u></u>	Deadline for receipt of absentee ballots Preliminary report of absentee ballot return rates	0 days	Fri 4/13/12		- 1
			10 days			
22		Final analysis of system use for primary election	20 days	Fri 4/27/12		- F
	33	Programmatic and Financial Report 3	1 day	Tue 5/1/12		- 1
24	-	Revision of application based on analysis of user feedback and system process reporting	40 days	Wed 5/2/12		1
25	2.8	Programmatic and Financial Report 4	1 day	Wed 8/1/12		
26	11	Announcement of availability of application for general election 2012	0 days	Wed 8/15/12		- 1
27	11	45 day deadline for ballot mailing for general election	0 days	Fri 9/21/12		
28		Reporting of FCPA submission by deadline	5 days	Fri 9/21/12		
29	11.00	General election date	0 days	Tue 11/6/12		
30	14 <b>H</b>	Deadline for receipt of absentee ballots	0 days	Fri 11/16/12	Fri 11/16/12	
31		Preliminary report of absentee ballot return rates	10 days	Fri 11/16/12		
32	1	Final analysis of system use for primary election	5 days	Fri 11/30/12		
33	17.00	Final Report	1 day	Mon 12/3/12	Mon 12/3/12	
34		Revision of application based on analysis of user feedback and system process reporting	10 days	Tuo 12/4/12	Mon 12/17/12 33	



## Reports

UOCAVA already requires the DCBOEE to keep detailed records of the number of absentee ballots it sends and receives from voters abroad. To measure the success of the cloud based initiative, DCBOEE will create reports to determine the effectiveness of the use of socially networked applications on participation rates, data quality, and back office process improvements that result from using the digitally distributed FPCA application. The implementation of the application will use Agile development methodology which emphasizes flexibility in responding directly to the needs of testers over a formalized reporting schedule. Key reporting dates are included in the overall project implementation schedule as they will be conducted and addressed simultaneously with the overall project deployment. These reports should measure the number of voters using the electronic system compared with the paper system along with demographic data for these voters. Reports will also address comparative analysis of participation rates for voters using this system versus other methods, the average return rate of ballots from voters using different application technologies and the average mailing address failure rates of different application technologies.

DCBOEE staff will prepare and publish all reports from the use of this system quarterly online on its website, www.DCboee.org.

## **Management Approach**

This program represents a partnership between the DCBOEE and Verafirma, a San Jose based non-profit corporation. Verafirma has offered to provide DCBOEE with the application, along with hosting in a SAS70 Type II secured facility with redundant hardware, power and internet connectivity free of charge for the duration of the pilot program. The majority of the costs will be directed to EMCS<sup>10</sup> which currently designs and manages *Integrity* DCBOEE's voter registration software and in acquiring the necessary technology to test the application and run the pilot program.

The back office implementation of this proposal involves programming to the Board's server to receive the electronic information transmitted by the cloud based application and deliver it to *Integrity* in a format that provides for the transfer of voter information into the system. DCBOEE plans to host an instance of the application on its website using the same cloud based gadget technology available to all interest parties. The website currently contains a single point platform from which UOCAVA voters can obtain a blank FPCA or absentee ballot request. What makes this program unique to other single point electronic voting systems is the distributable nature of the technology. Voters will be able to not only complete the FPCA by accessing the site via their tablet, but transmit the form electronically. The application can be hosted on a variety of sites at once and word of the application is sustainable and can only grow in future election cycles. As cloud computing becomes more and more prevalent in other sectors, voters will become more willing to utilize this type of technology for ballot requests. Ultimately, as tablet computing use becomes more universal more voters will have access to this or other hosts of the distributed technology.

## **Strategic Goals**

By implementing this project, DCBOEE will advance several strategic goals that are in line with its core mission:

## Trust

DCBOEE strives to maintain and strengthen the recognition among DC voters that we administer the elections in a fair, consistent, effective and transparent manner. This project will increase effectiveness of our election operations through the reduction of duplicate data entry thereby improving the quality of the information in the DCBOEE's voter registration system. Similarly, it will simplify the back office process involved in distributing absentee ballots to ensure that more voters are able to actively participate in elections.

## Accessibility

DCBOEE seeks to increase accessibility of the electoral process by testing innovative ways to vote and offering electors additional ways to register. This project will increase

<sup>&</sup>lt;sup>10</sup> For more information about Verafirma or EMCS, please the Qualifications section included herein.

the availability of ballots to overseas and military voters by utilizing the social networking infrastructure to distribute the FPCA. The result is a newer, simpler method for UOCAVA voters to request and receive absentee ballots from the DCBOEE that is on pace with a growing technological field.

### Engagement

DCBOEE seeks to increase DC citizens' understanding of the electoral process, the importance of voting and the process of becoming candidates in elections and to work collaboratively with other federal, state and local governmental entities and other non-governmental entities in developing innovative methods of strengthening the electoral process

This project will represent a collaborative effort with FVAP, the DCBOEE and the private sector development community to design and deploy an application that builds off of the best of the emerging field of cloud computing. The result will be an online independent platform for UOCAVA voters to more easily participate in the electoral process

## **Development and Testing Strategy**

DCBOEE and its vendors intend to follow the Agile development methodology generally for the deployment of this solution as detailed below. A dynamic programming methodology is ideal for this environment because of the distributed nature of the software being deployed and the flexible systems required as new platforms to host the online FPCA tool are integrated. Our guiding principles in development and testing are as follows.

- Development is incremental not necessarily sequential. Online forms will be developed in rapid cycles that result in small, incremental releases with each release building on the previous releases' functionality.
- Interactions between the users and the system are emphasized, rather than processes and tools. Staff, developers, and testers interact with each other regularly. This interaction ensures that the developer is aware of the requirements for the features and develops them to meet users' expectations.
- Working software is the priority rather than detailed documentation.
- "End user" collaboration is emphasized and requirements will be driven by the user experience. All Agile projects include the end users as a part of the team. When developers have questions about a requirement, they immediately get clarification from the group of people who will ultimately be employing the application.
- Flexibility is emphasized, rather than extensive documentation of requirements. Post implementation documentation will enable future iterations.

Using the Agile methodology, the testing phase is combined with development to become part of the continuous improvement model. Specifically, software testing as implemented will involve

feedback mechanisms which guide testers through scripted scenarios that validate data quality, application logic, application connectivity and system security. Initial testers will include DCBOEE staff, voters and external advocacy groups.

In Agile development, the test cases are developed based on incremental deployment of the software in its current iteration. By pairing developers and testers (both technical and function testers) each task can be fully vetted and completed. The critical management process will be to ensure that each series of tasks builds logically upon the system as currently developed.

During the initial deployment phase, DCBOEE will keep track of the following data:

- Who uses the application—DCBOEE will measure the use and success of the application among new and returning UOCAVA voters and then compare the rates of return from previous election cycles.
- Where the application is accessed—The system will be able to keep track of the location of the user as well as the site from which they accessed the application. The Board will keep track of whether the application is accessed from a government, organization or military website. This will allow us not only to track the popularity and use of our site but will also assist in tracking the Internet habits of UOCAVA voters and their preferred method of communication with their local election offices.
- Consumer response from the online customer facing feedback tools
- Ballot disposition-- DCBOEE will keep track of the ultimate status of the ballots and develop a report indicating the percentage of ballots requested through these systems.

## Analysis and measurements of current processes

While UOCAVA voters are currently permitted to request electronic ballots either from the DCBOEE's website or from FVAP or other external sites, the vast majority of them (over 95%) request ballots via paper forms (either FPCA or DC absentee ballot application form). Evaluating participation rates of UOCAVA voters compared with other absentee voters reveals a dramatic disparity in returned ballots. (See Table below) Domestic voters return absentee ballots at nearly twice the rate of UOCAVA voters. While many factors play into this disparity including some outside the scope of this project, we are aware of several current processes that can be improved by this proposed system. These improvements include:

- 1) Accuracy of mailing address information
- 2) Legibility of handwriting on FPCA forms and DC specific forms
- 3) Speed of processing ballot requests
- 4) Timely mailing of requested ballots and availability of electronic ballots for download.

Ballot Status	Other Absentee	Percent Total	UOCAVA Absentee	Percent of Total	Total Ballots Requested	Percentage of Total ballots mailed
NOT RETURNED	1415	27%	877	63%	2292	35%
RETURNED	3798	73%	508	37%	4306	65%
Grand Total	5213		1385		6598	

Rates of Return: District Absentee voters vs. UOCAVA voters (November 2010 general election)

#### **Automation Process and Design Plan**

Under the current system, the process for requesting and obtaining an absentee ballot has multiple steps. The proposed program will address several steps of this process to improve the transmission of information between the voter and the DCBOEE.

The current process for obtaining an absentee ballot is as follows:

- Voter mails or emails a completed FPCA or DC specific absentee ballot application to DCBOEE. The absentee ballot information contains the voter's permanent address and their current address as well as a signature that serves as verification for future ballots.
- DCBOEE clerk determines the eligibility of the voter to receive/cast a ballot in the District by checking the voter's information against the records kept in its *Integrity* software system.
  - If the voter submitting the FPCA is not currently registered, the clerk creates a voter record by entering the information written on the form into the DCBOEE voter registration system and then creates an absentee ballot request.
  - If the voter is registered, the clerk then creates an absentee ballot request record in the voter registration system.
- Once candidate, contest and ballot position for all contests in an election are determined, as stipulated in DC Code, ballots are designed, proofed and printed. Ballot styles are prepared for each election based upon the lowest common denominator of electoral precinct and voting district and each voter is associated to a specific ballot style through their residential street address mapped to the respective precinct split.
- Ballots are sorted, collated and inserted into postal envelopes in a partially automated process whereby data created by entering the absentee requests into the voter registration system are exported to a mail processing system. The ballots, bar coded with unique ballot style identifiers, are then collated using an automated sorter and matched to the respective voters.

- Voters can also receive their blank absentee ballots via a link from our website that directs them where to download their correct local ballot after their FPCA is approved.
- The mail processing system then creates a data file that is imported into the voter registration system which indicates when the ballot was transmitted to the voter.
- Each piece of outbound mail is bar coded. When mail is returned, all ballots are scanned, imaged (to capture a digital image of voter's signature on the envelope) and sorted into electoral precinct or precinct split.
- Data are collected from the sorter and imported into the voter's record within the voter registration system to indicate the return of ballot.
- Signatures are then digitally compared between envelope and digitized signature on file for affirmation of identity of voter

Research has suggested that the current process results in unacceptably high rates of return mail leading to low completion rates of absentee ballots sent to UOCAVA voters. Administrative errors result from illegible handwritten forms and error in data entry. The process also takes several days to complete often resulting in an insufficient time for UOCAVA voters to complete and return the ballots. The proposed system offers voters the option of submitting the application for an absentee ballot or the FPCA electronically. Under this system, instead of receiving a signed paper form via regular mail, the information is provided in a digital format, including a digitized signature. This information will import directly into the voter registration system and eliminate the need for a clerk to enter that information by hand from the paper form. This will, we predict, decrease data entry errors thus decreasing the number of ballots that are returned with undeliverable addresses.

## **Financial Management Strategy**

The District of Columbia Board of Elections and Ethics is an independent agency that receives the majority of its funds from local revenue. The process for managing federal grant funds will mimic the current practices used to manage and account for federal funds released under the Help America Vote Act. Upon receiving federal grant funding, the District of Columbia's Chief Financial Officer ("CFO") will establish an account for the management of the federal funds. These funds will be monitored for programmatic compliance by the CFO through the Office of Financial and Resource Management (OFRM), which currently serves, by mutual agreement, as the DCBOEE's budget entity. The Office of Finance and Resource Management (OFRM) reviews all federal grant terms and conditions to ensure that the federal dollars are being utilized for the intended purposes. DCBOEE submits a weekly expenditure report to the OFRM to review all expenses to determine if those expenses are allowable, prior to the agency submitting various reports to the federal government for approval. In addition, the Board's independent election administration consultant, who has expertise in compliance, regulatory auditing, and federal/DC elections rules, will serve as the grant monitor and assist the Board and the CFO's office in monitoring all expenditures and ensuring compliance with federal law and accepted accounting principles. The Board's consultant will file the required financial reports and program reports to ensure compliance with federal law and generally accepted accounting principles. The consultant will assist the Board in facilitating an effective audit and maintain records that are consistent with generally accepted accounting principles of expended FVAP grant payments in accordance with the Act and related administrative requirements. The auditor will also ensure that records are maintained consistent with sound accounting principles.

## **Risks and Mitigation Strategies**

As with any computer based system, there is a risk of willful and malicious attacks on the core system. To mitigate these risks, DCBOEE and its vendors will ensure that Tier-I providers conform to security and auditing protocols, have redundant systems, and alternate sites available. With the initial tests and deployment, interruption of service may also be a risk. To anticipate this, DCBOEE will request that all users participating in the trial phases of this application submit their applications in paper form as well. The goal of the project is to eventually allow for the FPCA process to be completely automated however, for the present time, an alternate means of FPCA submission will be available through email, fax and the Overseas Vote Foundation (OVF) website that will allow for mitigation of any errors that may arise from the initial deployment of the online application.

## **Performance Indicators:**

The Board will measure the success of the program by determining and comparing the following metrics:

- 1) Number of FPCA's processed,
- 2) Number of undeliverable UOCAVA ballots,
- 3) Elapsed time from receipt of request to transmission of ballot
- 4) Return rates of completed UOCAVA absentee ballots

As discussed above, the automation of the data entry process will reduce the number of incorrect address entries that result from human error or illegible forms. With a return mail rate at near zero, this should increase the number of UOCAVA voters who receive their ballots and return them on time. Furthermore, the automation will increase the turnaround time on a ballot application which will increase the amount of time a military or overseas voter has to complete and return the ballot to the DCBOEE.

## **Measurements of performance**

The success of this project will be measured by the number of UOCAVA voters who successfully access and use the system to process their application data. The DCBOEE will also measure the success of the program, as discussed above, by quantifying the rate of returned mail and the back office processing time. The user feedback tool will provide an indicator of the accessibility of the application as well as alert the project managers to areas to be improved. One of the principle measures of the performance of any socially networked application is its proliferation in the digital sphere. DCBOEE intends to monitor the number of outlets incorporating this tool set and will promote the availability of the application using available social media websites such as Facebook and Twitter, where the Board already maintains an online presence. DCBOEE will also encourage other external websites catering to military and overseas voters to host the application and increase the program's visibility.

## **Current and Pending Project Proposal Submissions**

DCBOEE currently administers projects funded under the Help America Vote Act (HAVA)<sup>11</sup> that seek to improve the voter registration process, enhance voting equipment operation and improve voter communications. However, to date, DCBOEE has made no additional application for funds and has no projects that are funded by other sources concurrent with the execution of the attached proposal.

A brief summary of HAVA funded initiatives is provided below. A full HAVA project funding plan can be made available upon request.

## HAVA funded initiatives

Voter Registration System Modernization:

To enhance the current voter registration system to automate the processes of voter registration via online voter registrations and NVRA agency submission, DCBOEE has contracted with EMCS (described herein) to provide these services funded by HAVA.

Voting Equipment Enhancement:

In 2010 DCBOEE purchased and deployed voting equipment manufactured by ES&S and electronic pollbook equipment manufactured by Hart Intercivic to fulfill its requirements under the District of Columbia Omnibus Election Reform Act of 2009. The deployed DRE equipment with voter verifiable paper audit trails were deployed at both election day polling places and at five early voting centers. New precinct optical scan recording equipment was also deployed at

<sup>&</sup>lt;sup>11</sup> Help America Vote Act, 42 U.S.C. § 15301 (a)-(d).

election day polling places and at one early voting center. Central tabulation systems were installed and used at DCBOEE central offices for tabulation of absentee and provisional ballots. Electronic pollbook hardware and software were deployed to all early voting and election day polling locations to facilitate the enactment of same day voter registration and permit transparent disclosure of early voting and same day registration data.

## Qualifications

The following are a list of key project personnel within the DCBOEE as well as relevant information on key personnel within Verafirma and EMCS:

Key personnel

## Agency staff (resumes available upon request)

Paul E. Stenbjorn, Director Information Services DC Board of Elections and Ethics

Project manager, developer, user acceptance test coordinator

Rokey W. Suleman, II, Executive Director, DC Board of Elections and Ethics

Sponsor, administrative leadership

Sylvia Goldsberry-Adams, Director of Operations, DC Board of Elections and Ethics

Financial management and reporting

## Contractors

Michael Marubio, Co-founder, Verafirma

Michael is an entrepreneur who has worked extensively in the cryptography and electronic signature markets. For the past 15 years, Michael has led teams that have built and sold the electronic records management and signature systems to such organizations as the Federal Reserve, Citi, Travelers Insurance, NetSuite, and JP Morgan.Chase. Michael has founded several companies including OnePage (acquired by Sybase), VF Signature, Retail Expansion Network, and Bellalingua; and is currently the CEO of Xignature, an electronic signature company.

Michael has done his time in politics as a fundraiser and activist in Chicago and Washington D.C., and is excited to be part of a venture that combines electronic signing and politics.

Jude Barry, Co-founder, Verafirma

Jude has worked in local government, California state campaigns, and national politics as a top-level strategist and manager. He advises Fortune 500 companies, political candidates, and non-profit organizations. Jude is currently one of the lead strategists for the San Francisco 49ers' efforts to build a new NFL stadium. Because of his expertise in politics, policy, and technology, Jude is a regular and respected source for local, state, and national news reporters.

Jude has earned local, state, and national recognition for his expertise in government and politics during the last three decades. Most notably, in 2006, he was the campaign manager for Westly for Governor, managing a statewide California political and media operation with a \$45 million budget. During the 2004 presidential cycle, Jude served as the California state director for former Vermont Governor Howard Dean's campaign. He helped develop the cutting-edge technology strategy that allowed the Dean campaign to recruit and organize an unprecedented 100,000 volunteers in the state. In local government, Jude was chief of staff to the Mayor of San Jose and developed San Jose's strategy to maintain its standing as the "Capital of Silicon Valley" and the "Internet Capital of the World."

Edmund Bernosky, Technical Partner, Election Management Consulting Services, LLC

See resume attached

Christina Clark Rehfuss, Administrative Partner, Election Management Consulting Services, LLC

See resume attached

## **Budget Proposal**

See budget attached

			Quarter 4 FY 2011	
Class	Task Group	Resource	Hours/Units Rate	Costs
Direct Labor	Application Development	Paul Stenbjorn	15	55 \$ 825.00
	Interface with existing systems	Paul Stenbjorn	10	55 \$ 550.00
	Testing, debugging	Paul Stenbjorn	5	55 \$ 275.00
	Proofing, compliance	Paul Stenbjorn	5	55 \$ 275.00
	Proofing, compliance	Rokey Suleman	2	70 \$ 140.00
	Ballot management	Paul Stenbjorn	5	55 \$ 275.00
	Outreach/Social Networking	Paul Stenbjorn	5	55 \$ 275.00
		Subtot	al 47	400 \$ 2,615.00
Administrative Clerical Labor	Reporting	Paul Stenbjorn	10	55 \$ 550.00
	Financial compliance	Sylvia Goldsberry-Adams	10	55 \$ 550.00
	Election administration (misc)	Paul Stenbjorn	5	55 \$ 275.00
		Subtot	al 25	165 \$ 1,375.00
Fringe Benefits and Indirect Costs	Benefits	Paul Stenbjorn		\$ 660.00
	Benefits	Rokey Suleman		\$ 28.00
	Benefits	Sylvia Goldsberry-Adams		\$ 110.00
		Subtot	al	\$ 798.00
Travel	Application Development	Verafirma		\$ 3,000.00
	Interface with existing systems	EMCS		\$ 3,000.00
		Subtot	al	\$ 6,000.00
Subcontracts	Application Development	EMCS	50	115 \$ 5,750.00
	Application Development	Verafirma	20	115 \$ 2,300.00
	Interface with existing systems	EMCS	40	115 \$ 4,600.00
	Interface with existing systems	Verafirma	0	0\$-
	Testing, debugging	EMCS	20	115 \$ 2,300.00
	Testing, debugging	Verafirma	10	115 \$ 1,150.00
		Subtot	al 140	575 \$ 16,100.00
Consultants	n/a			
Materials and Supplies	Touch screen devices for testing	Verizon (iPad2)	6	900 \$ 5,400.00
Other Direct Costs	n/a			
		Tota	ls	\$ 32,288.00
Costs incurred by DC (not included in	n funding request)	Verizon (iPad2)	2	900 <b>\$ 1,800.00</b>

	0		Quarter 1 FY 2012	
Class	Task Group	Resource	Hours/Units Rate	Costs
Direct Labor	Application Development	Paul Stenbjorn	10	55 \$ 550.00
	Interface with existing systems	Paul Stenbjorn	5	55 \$ 275.00
	Testing, debugging	Paul Stenbjorn	10	55 \$ 550.00
	Proofing, complianc <del>e</del>	Paul Stenbjorn	5	55 \$ 275.00
	Proofing, complianc <del>e</del>	Rokey Suleman	0	70\$-
	Ballot management	Paul Stenbjorn	10	55 \$ 550.00
	Outreach/Social Networking	Paul Stenbjorn	10	55 \$ 550.00
		Subtot	al 50	400 \$ 2,750.00
Administrative Clerical Labor	Reporting	Paul Stenbjorn	15	55 \$ 825.00
	Financial compliance	Sylvia Goldsberry-Adams	10	55 \$ 550.00
	Election administration (misc)	Paul Stenbjorn	5	55 \$ 275.00
		Subtot	al <b>30</b>	165 \$ 1,650.00
Fringe Benefits and Indirect Costs	Benefits	Paul Stenbjorn		\$ 770.00
	Benefits	Rokey Suleman		\$-
	Benefits	Sylvia Goldsberry-Adams		\$ 110.00
		Subtot	al	\$ 880.00
Travel	Application Development	Verafirma		\$-
	Interface with existing systems	EMCS		\$ -
		Subtot	al	\$-
Subcontracts	Application Development	EMCS	60	115 \$ 6,900.00
	Application Development	Verafirma	10	115 \$ 1,150.00
	Interface with existing systems	EMCS	20	115 \$ 2,300.00
	Interface with existing systems	Verafirma	0	0\$-
	Testing, debugging	EMCS	10	115 \$ 1,150.00
	Testing, debugging	Verafirma	10	115 \$ 1,150.00
		Subtot	al 110	575 \$ 12,650.00
Consultants	n/a			
Materials and Supplies	Touch screen devices for testing	Verizon (iPad2)	6	70 \$ 420.00
Other Direct Costs	n/a		_	
		Tota	ls	\$ 18,350.00
Costs incurred by DC (not included ir	n funding request)	Verizon (iPad2)	2	70 <b>\$ 140.00</b>

	J. J		Quarter 2 FY 2012		
Class	Task Group	Resource	Hours/Units Rate	Costs	
Dîrect Labor	Application Development	Paul Stenbjorn	20	55 \$ 1,100.0	)0
	Interface with existing systems	Paul Stenbjorn	10	55 \$ 550.0	)0
	Testing, debugging	Paul Stenbjorn	5	55 \$ 275.0	)0
	Proofing, compliance	Paul Stenbjorn	5	55 \$ 275.0	)0
	Proofing, compliance	Rokey Suleman	0	70\$-	
	Ballot management	Paul Stenbjorn	0	55 \$ -	
	Outreach/Social Networking	Paul Stenbjorn	0	55 \$ -	
		Subtot	al 40	400 \$ 2,200.0	10:
Administrative Clerical Labor	Reporting	Paul Stenbjorn	15	55 \$ 825.0	)0
	Financial compliance	Sylvia Goldsberry-Adams	10	55 \$ 550.0	)0
	Election administration (misc)	Paul Stenbjorn	0	55 \$ -	
		Subtot	al 25	165 \$ 1,375.0	10:
Fringe Benefits and Indirect Costs	Benefits	Paul Stenbjorn		\$ 605.0	)0
	Benefits	Rokey Suleman		\$-	
	Benefits	Sylvia Goldsberry-Adams		\$ 110.0	)0
		Subtot	al	\$ 715.0	10
Travel	Application Development	Verafirma		\$-	
	Interface with existing systems	EMCS		\$ -	
		Subtot	al	\$-	
Subcontracts	Application Development	EMCS	20	115 \$ 2,300.0	)0
	Application Development	Verafirma	10	115 \$ 1,150.0	)0
	Interface with existing systems	EMCS	20	115 \$ 2,300.0	)0
	Interface with existing systems	Verafirma	0	0\$-	
	Testing, debugging	EMCS	10	115 \$ 1,150.0	)0
	Testing, debugging	Verafirma	0	115 \$ -	
		Subtot	al 60	575 \$ 6,900.0	10
Consultants	n/a				
Materials and Supplies	Touch screen devices for testing	Verizon (iPad2)	6	70 \$ 420.0	10
Other Direct Costs	n/a		_	•	
		Tota	lls	\$ 11,610.0	10:
Costs incurred by DC (not included in	n funding request)	Verizon (iPad2)	2	70 <b>\$ 140.0</b>	10:

			Quarter 3 FY 2012		
Class	Task Group	Resource	Hours/Units Rate	Co	osts
Direct Labor	Application Development	Paul Stenbjorn	10	55 \$	550.00
	Interface with existing systems	Paul Stenbjorn	5	55 \$	275.00
	Testing, debugging	Paul Stenbjorn	5	55 \$	275.00
	Proofing, compliance	Paul Stenbjorn	5	55 \$	275.00
	Proofing, compliance	Rokey Suleman	0	70 \$	-
	Ballot management	Paul Stenbjorn	0	55 \$	-
	Outreach/Social Networking	Paul Stenbjorn	10	55 \$	550.00
		Subtot	al 35	400 \$	1,925.00
Administrative Clerical Labor	Reporting	Paul Stenbjorn	15	55 \$	825.00
	Financial compliance	Sylvia Goldsberry-Adams	10	55 \$	550.00
	Election administration (misc)	Paul Stenbjorn	5	55 \$	275.00
		Subtot	al 30	165 \$	1,650.00
Fringe Benefits and Indirect Costs	Benefits	Paul Stenbjorn		\$	605.00
	Benefits	Rokey Suleman		\$	-
	Benefits	Sylvia Goldsberry-Adams		\$	110.00
		Subtot	al	\$	715.00
Travel	Application Development	Verafirma		\$	3,000.00
	Interface with existing systems	EMCS		\$	3,000.00
		Subtot	al	\$	6,000.00
Subcontracts	Application Development	EMCS	10	115 \$	1,150.00
	Application Development	Verafirma	10	115 \$	1,150.00
	Interface with existing systems	EMCS	10	115 \$	1,150.00
	Interface with existing systems	Verafirma	0	0\$	-
	Testing, debugging	EMCS	10	115 \$	1,150.00
	Testing, debugging	Verafirma	0	115 \$	-
		Subtot	al 40	575 \$	4,600.00
Consultants	n/a				
Materials and Supplies	Touch screen devices for testing	Verizon (iPad2)	6	70 \$	420.00
Other Direct Costs	n/a		_		
		Tota	lls	\$	15,310.00
Costs incurred by DC (not included in	n funding request)	Verizon (iPad2)	2	70 <b>\$</b>	140.00

	Ū		Quarter 4 FY 2012	2	
Class	Task Group	Resource	Hours/Units Rate	e Costs	Totals
Direct Labor	Application Development	Paul Stenbjorn	20	55 \$ 1,100	9.00 \$ 4,125.00
	Interface with existing systems	Paul Stenbjorn	15	55 \$ 825	.00 \$ 2,475.00
	Testing, debugging	Paul Stenbjorn	10	55 \$ 550	9.00 \$ 1,925.00
	Proofing, compliance	Paul Stenbjorn	5	55 \$ 275	.00 \$ 1,375.00
	Proofing, compliance	Rokey Suleman	0	70 \$	- \$ 140.00
	Ballot management	Paul Stenbjorn	5	55 \$ 275	.00 \$ 1,100.00
	Outreach/Social Networking	Paul Stenbjorn	5	55 \$ 275	.00 \$ 1,650.00
		Subto	tal 60	400 \$ 3,300	.00 \$ 12,790.00
Administrative Clerical Labor	Reporting	Paul Stenbjorn	20	55 \$ 1,100	9.00 \$ 4,125.00
	Financial compliance	Sylvia Goldsberry-Adams	10	55 \$ 550	9.00 \$ 2,750.00
	Election administration (misc)	Paul Stenbjorn	5	55 \$ 275	.00 \$ 1,100.00
		Subto	tal 35	165 \$ 1,925	.00 \$ 7,975.00
Fringe Benefits and Indirect Costs	Benefits	Paul Stenbjorn		\$ 935	.00 \$ 3,575.00
	Benefits	Rokey Suleman		\$	- \$ 28.00
	Benefits	Sylvia Goldsberry-Adams		\$ 110	9.00 \$ 550.00
		Subto	tal	\$ 1,045	.00 \$ 4,153.00
Travel	Application Development	Verafirma		\$	- \$ 6,000.00
	Interface with existing systems	EMCS		\$	- \$ 6,000.00
		Subto	tal	\$	- \$ 12,000.00
Subcontracts	Application Development	EMCS	40	115 \$ 4,600	9.00 \$ 20,700.00
	Application Development	Verafirma	20	115 \$ 2,300	9.00 \$ 8,050.00
	Interface with existing systems	EMCS	40	115 \$ 4,600	0.00 \$ 14,950.00
	Interface with existing systems	Verafirma	0	Ο\$	- \$ -
	Testing, debugging	EMCS	10	115 \$ 1,150	9.00 \$ 6,900.00
	Testing, debugging	Verafirma	0	115 \$	- \$ 2,300.00
		Subto	tal 110	575 \$ 12,650	.00 \$ 52,900.00
Consultants	n/a				
Materials and Supplies	Touch screen devices for testing	Verizon (iPad2)	6	70 \$ 420	.00 \$ 7,080.00
Other Direct Costs	n/a	Tot		\$ 19,340	.00 \$ 96,898.00
		lot	αι>	Ş 19,540	
Costs incurred by DC (not included i	n funding request)	Verizon (iPad2)	2	70 <b>\$ 140</b>	.00 \$ 2,360.00

#### EDMUND F. BERNOSKY JR.

#### (b)(6)

#### TECHNICAL PARTNER - E.M.C.S. LLC

Veteran programmer and developer of election related software with an extensive background and proven record in design and implementation. History of effective interaction and relationship in management with personnel, clients, sales managers, governmental agencies, non-governmental agencies and multifunctional project teams. Demonstrated ability to bring new and innovative approaches to establish technical processes. An "out of the Box" thinker with strong abilities and creative thinking.

## AREAS OF EXPERTISE

<ul> <li>Network Administration</li> </ul>	۶	Customer Support -Technical	⋟	Web Design
Application Development	۶	Data Management	۶	Programming – Lead
• HTML/XHTML	×	Java	۶	JavaScript
> Perl	≻	PHP	$\succ$	Shell Scripting
≻ SQL	×	SSIS	⋟	EML
> EML	$\rightarrow$	XML/XSL	$\succ$	Visual Basic
> C#C++	$\geq$	Delphi (Pascal)	$\succ$	Windows 7, XP
SQL Server 2008	$\geq$	Unix		

#### PROFESSIONAL EXPERIENCE

ELECTION MANAGEMENT CONSULTING SERVICES LLC 6079 Elgin Road, Cocoa, Florida 32927 CTO – Chief Technical Partner 12/2008 To Current

Direct and manage all the technical oriented affairs of Election Management Consulting Services LLC including ongoing customer technical support and software development. Effectively provide programming and implementation of technical projects. Oversee technical changes to software product related to voter registration and election management. Function as technical project manager on new installation and develop/execute new programs.

#### SEQUOIA VOTING SYSTEMS, INC, 7677 Oakport Street, #800, Oakland, CA Senior Programmer/System Analyst

Directed and managed the SVS Integrity Voter Registration and Election Management Software Technical staff. Functioned as lead designer and developer of Integrity – Voter Registration and Election Management client and server software. Participated in and directed new installations, on-going customer support, support to in-house staff, and Sequoia administrative staff. Designed and implemented State and County database, GIS and other 3<sup>rd</sup> Party integration projects.

GULF COAST COMPUTER SOLUTIONS, Naples, FL Web Design / Application Development

1998 to 08/2000

2000 to 2009

Lead designer and developer of web sites and applications for small businesses. Utilized contemporary design to create concise web sites and applications for specific client needs. Site creation included use of CSS, HTML, JavaScript, MySQL, Adobe Flash, Perl, PHP and Delphi.

#### (b)(6)

#### PROFESSIONAL EXPERIENCE, CON'T.

#### DAVID LAWRENCE CENTER, Naples, FI Network Administrator, Senior IT Specialist

Provided general help desk support for Windows, Apple and Unix terminals. Maintained Unix server and agency applications. Developed Windows Office reporting system integrated with existing agency Unix database.

#### PROFESSIONAL STRENGTHS

Data Management GUI Design Project Completion

#### EDUCATION

1994

Computer Science

Tunxis Community College - Bristol, CT

PROFESSIONAL REFERENCES TO BE PROVIDED UPON REQUEST.

1995 to 1998

(b)(6)

ADMINISTRATIVE PARTNER - E.M.C.S. LLC

CHRISTINA CLARK REHFUSS

Veteran administrator and management executive with an extensive background, who has a proven record in marketing and training. History of effective interaction and relationship in management with personnel, clients, sales managers, governmental agencies, non-governmental agencies and multifunctional project teams. Demonstrated ability to bring new and innovative approaches to established processes. An "out of the Box" thinker with strong analytical and development skills. Excellent communication and technical skills.

#### AREAS OF EXPERTISE

$\geq$	Department Administration	$\succ$	Product Administration	$\geq$	Technology Implementation
$\geq$	Public Speaking	$\succ$	Technical Writing	≻	Strategic Planning
$\geq$	Public Relations	$\succ$	New Business Development	$\geq$	Training Program Development
$\geq$	Grant Writing/Administration	$\succ$	Business Processes	≻	Budget Development
$\geq$	Project Management	$\succ$	Contract Negotiations	≻	Human Resource Development
			ů		۱

#### PROFESSIONAL EXPERIENCE

ELECTION MANAGEMENT CONSULTING SERVICES LLC 6079 Elgin Road, Cocoa, Florida 32927

CEO – Executive Partner

Direct and manage all the financial and administrative affairs of Election Management Consulting Services LLC including on-going customer support, solicitation of business and contract negotiations. Effectively provide budgeting and coordination with company accountant. Oversee all human resource functions. Function as project manager on new installation and develop/execute customer training programs.

#### SEQUOIA VOTING SYSTEMS, INC, 7677 Oakport Street, #800, Oakland, CA Support Manager / Senior Project Manager

1994 to 12/2008

Direct and manage the SVS Integrity Voter Registration and Election Management Software and its associated division including new installations, on-going customer support, support to in-house staff, sales representatives and continuing input toward product maintenance and growth. Effectively provided financial oversight, budget development and growth for the product. Recruited and grew the staff from 0 to 8 full time employees. Creatively addressed the challenge of Project Management on numerous county, state and federal projects. Bid development and technical documentation responsibility toward the award of contract.

#### BREVARD COUNTY SUPERVISOR OF ELECTIONS OFFICE, Brevard County, FL Systems Manager

1988 to 1994

Reported directly to the elected Supervisor of Elections – first, Shirley Baccus and later the present SOE, Fred Galey. Administrated two departments (Absentee and System Administration). Performed skilled professional work directing all Election Office computer systems coordinating with the County's Information Systems Department. Preparation of Proposals including cost estimates and time schedules toward project implementation. Supervision. Management and training of personnel including 6 full time staff and 20 to 30 +

temporary employees during the election cycle, Assisted the Supervisor of Election by researching Project proposals and negotiation of contracts toward the purchase and implementation of Electronic systems (hardware and software). Effectively utilized technology to meet the needs of the staff and outside community.

12/2008 To Current

CHRISTINA CLARK REHFUSS

(b)(6)

University of Central Florida, Brevard Community College Campus, Clearlake Rd, Cocoa , Fl	January to
Adjunct Professor, Public Administration Department	December,
"Public Policy" Class	1991

Directed all the activities associated with planning and conducting undergraduate, pre-requisite class on Public Policy. Class was required by all students seeking a Bachelors degree in Public Administration. Oversaw an average class size of 30 to 35 students.

CITY OF TITUSVILLE, City Administration Building, 3550 S Washington Avenue, Titusville, FI 1985 to 1988 Community Redevelopment Executive Director / City Planner

Acted as the Executive Director of the City's Redevelopment Project while continuing as a City Planner for the City of Titusville providing supervision to four (4) full time staff and support to six (6) permanent city wide boards and commissions. Worked directly with the following boards and commissions: City Council, Planning and Zoning Board, Titusville Environmental Commission, Redevelopment Board and Redevelopment Commission. Solely responsible for drafting of grant applications for redevelopment and planning projects. Prime responsibility in the drafting and approval of the City's Comprehensive Plan.

EARLY CAREER DEVELOPMENT	
State of Tennessee, East Tennessee Regional Planning Office Program Analyst	1984 to 1985
State of Tennessee, Division of Surface Mining Internship – Successfully drafted the Plan the State of Tennessee used to convince the Federal Government that the State was ready to take back the administration of Surface Mining within the State. Part of my degree program to obtain my Master's in Public Administration.	1983 to 1984
Berea College, Berea, Kentucky Teaching Assistant – History Department	1982 to 1984

#### EDUCATION

1984 to 1985	Master's Degree in Public Administration – University of Tennessee
1980 to 1984	Bachelor's Degree in History - Berea College (Dual Major)
1980 to 1984	Bachelor's Degree in Theology – Berea College (Dual Major)

PROFESSIONAL REFERENCES TO BE PROVIDED UPON REQUEST.

#### Volume 1 - Cover Sheet

#### **Detroit Electronic Absentee System for Elections (EASE)**

#### 1) Catalog of Federal Domestic Assistance Number: 12.217

#### 2) BAA number: HQ0034-FVAP-11-BAA-0001

#### 3) Title of Proposal: Detroit Electronic Absentee System for Elections (EASE)

4) CAGE Code: (b)(4) and DUNs Number: (b)(4)

 5) Applicant: City of Detroit
 Department of Elections
 2978 W. Grand Blvd
 Detroit, MI 48202

Subcontractor: Konnech Inc. CAGE Code: (b)(4) and DUNs Number: (b)(4) 4211 Okemos Road, Suite 3 & 4 Okemos, MI 48864

> 6) Technical contact: Kelly Neuder
> 4211 Okemos Road, Suite 4 & 4 Okemos, MI 48864 517.381.1830 Fax: 877.301.0793 Kelly@konnech.com

#### 7) Administrative/ business contact:

Gina C. Avery City of Detroit Department of Elections 2978 W. Grand Blvd Detroit, MI 48202 (313) 876-0221 FAX: (313) 876-0053 averyg@detroitmi.gov

#### 8) Proposed period of performance

From September 1, 2011 to November 31, 2012

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# 1. Executive Summary

This is an application for funds to build an Electronic Absentee System for Elections (EASE) for the City of Detroit UOCAVA voters, based on the electronic voting support wizard (EVSW) pioneered by FVAP in 2010.

The contractor will be Konnech, Inc. This company has successfully provided Detroit with their PollChief poll worker and poll location management modules for the past 3 years, and last year successfully provided the EVSW for New Jersey, Montana and Nevada. We have confidence in Konnech as a technology partner.

Michigan may have more ballot delivery and return challenges for our UOCAVA voters than other States. Many of our overseas voters are giving up trying to apply for their ballot since most of their past efforts failed, so there is a defeatist impression with the election service of Michigan. Now, Michigan has moved the presidential primary Election Day tentatively to February 28, 2012. The earlier election will bring additional challenges to our department. Additional communications with our UOCAVA voters are urgently needed.

The EASE will help us to generate additional interest from our UOCAVA voters. Our qualified voters can use EASE to confirm their registration and apply for ballots using the FPCA and submit their write-in FWAB ballot, which can be downloaded from EASE. They will also be able to check their application and full ballot delivery status using EASE. By using EASE, Detroit will be able to deliver the blank ballot online which will be a first in Michigan elections. We anticipate that our applications from UOCAVA voters for 2012 will increase 50% or more over the 2008 elections, which would be nearly 1,000 more UOCAVA voters for the City of Detroit alone.

Currently, we are using a Microsoft Excel spreadsheet to keep track of UOCAVA voters. There is no system to communicate with our thousands of UOCAVA voters effectively. Our UOCAVA voters cannot check if their application was received, their paper ballot was sent, or if their marked ballot was successfully recorded. The new EASE will dramatically improve our internal operation, and our voter service for our UOCAVA voters.

Since Michigan requests our UOCAVA voters to have their signatures on all of their submissions, the voters still have to print the web downloaded forms, sign them, scan them, and mail or email them back. For most of our UOCAVA voters, this is a major challenges. Detroit plans to use the EASE add-on of Konnech's Mobile App to overcome this problem. Our proposed Mobile App will allow voters who have a Smartphone like an iPhone or Android powered phone, to mark, sign, and return the documents on their Smartphones instead of using EASE voter interfaces through their computers. Our city staff will use the same EASE login to manage the Smartphone users as well as the online users. The Mobile App grant application is an addition to this EASE application-- we separated our Mobile App into a separate grant application. If there is not enough funding from the FVAP for the EASE project, the Mobile App project, and a Mobile App Risk Assessment project, we at least hope that we will be funded for this EASE project.

# 2. Goals and objectives

### 2.1. Our Goals or Objectives

- Goal One: 50% or more participation of our UOCAVA voters.
- Goal Two: raise the perception of our UOCAVA voters about their importance the Detroit Department of Elections places on their voting participation and about our treatment of processing their votes.
- Goal Three: model a ground-breaking new election tool for all States and jurisdictions across the country.

#### 2.2. Establish and Operate As a Successful Electronic Tool

Michigan expects to hold the 2012 presidential Primary in February. We look for this new EASE to help us overcome this additional challenge and to launch one of the most successful election tools in the city's election management history. Online access is becoming more and more reliable and secure, which can overcome the bottleneck issue of voter and city communications, ballot application, write-in ballot application, blank ballot delivery and much more, and eventually change the image of our UOCAVA voter service.

#### 2.2.1. A Daily Communications Platform

Currently, we are not able to communicate with our UOCAVA votesr effectively since we do not have any useful tool or database to deal with this problem. The city budget issue has created an additional funding problem for keeping our current experienced staff. It is urgent to have a tool like EASE to help us cope with these tough times.

It is planned to use the coming EASE program to send out massive emails and merged letters to alert our UOCAVA voters for the coming elections.

In the past 3 years, we have been using Konnech's communications platform integrated into our city poll worker and poll location management system. We have used the system to send out massive emails, phone calls and letters to our 10,000 plus poll workers in the database, and the one hundred different organizations for our 500 plus potential polling locations for each of our elections. The communications have made a big difference in our city's relationship with our voters. We will ask Konnech to provide us a communication enhanced EASE for our communications needs with our UOCAVA voters.

# 2.2.2. A Tool to Speed up Our Approval for UOCAVA Applications

Currently, we have to go to the State Qualified Voter File (QVF) to search for the voter's state registration record, and have to manually search the voter's city UOCAVA record and history of voting records to determine the qualification status of the applicant. It takes a lot of time and effort for our few staff members to deal with the large amount of absentee voters along with our general population of voters (81,396 total absentee voters for 2008, which included 1,836 UOCAVA voters).

Konnech currently has our Michigan QVF and Street Index, which link voters' resident addresses with their polling locations or ballot styles, integrated with our poll

worker and location management system. Since the databse integration is already written, we can complete the additional interpretation done guicker and more economically than any city or township in Michigan. Attached here, please see the image of the staff's approval interfaces, which will save us hundreds of hours for each election. When our staff clicks to enter the administrator web site, they can view the UOCAVA voter's registration information, the voter's FPCA information, the voter's status, and the information the voter keyed in when submitting this request all within this one place. Mismatches are highlighted. It turns our hour long search into just a few clicks of the mouse.

Once the voter is approved, the system will automatically match the voter to their

precinct's ballot. If the voter is already registered or if this is their first time registering, a dropdown list is available with various precincts to choose from As soon as the staff user. approves the request. the system sends an approval email to the

Voter Enter Information		<b>UOCAVA Inform</b>	ation(Listed)	SVRS Information(Listed)		
1.470.02	10.01.051	1-010-0	G	$(1-1)^{-1} (1-1)^{-1$	0	
1.1	JC <sup>+</sup> H	the second second	1000	1.012-04	20.00-	
Linde el Narrie		Middle Marnet	1, 2 -	Michille, Norme.	10 4	
3.14		Suffa		Suffix		
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45 and	a sociation of the other	Emat		Freight		
Frone	*Onterior B	Phone		Phone		
T Ar		F Ga				
Personal Identification		Personal Identif	Ication	Personal Identification		
Green's Literrae Number		Criver's Lizense Number		Onverts Litense Nomber		
OR Last + Digits of 55%	<b>H</b> /9	OR, Lapl 4 Digits of SSH		CR Last 4 Digits of SGN		
Voting Residence	e	Voting Resident	e	Voting Residence	e	
Residence Address	0.0001034846200233	Residence Adcress	EDEROMORIE II	Residence Address	1, 14203 Web00 CI 226	
City	MOUNT LAURES TOTANSI INT	C ty	CHONTLAUREL DWSS10	Che	LICOLURE	

voter with access to the ballot.

#### Better Reporting 2.2.3.

We currently cannot track if the paper ballots were returned from our UOCAVA voters. This EASE will provide us the tool to change that and much more. We will be able to provide real-time voter access, application, blank ballot delivery, ballots received, and more.

#### Easier Submission of FPCA & FWAB 224

The program provides an entry page where the UOCAVA voter enters personal identifying information, fills out a Federal Post Card Application for the requestors who were not registered or were not on the Yearlong UOCAVA FPCA File (YUFF). and transmits an email to the county clerk's office notifying them of a UOCAVA request requiring action. The email sent to the county clerk's office would include a link to click to access the voter's request. It simultaneously sends an email to the voter notifying them that their request has been sent to the appropriate office, and that they will receive an email shortly from the county clerk.

#### Voter Centered System 2,2,5,

The system provides a ballot and the state specific instructions to the voter. The system enables on-screen marking, warns the user of under-voting, and prevents overvoting. When the voter finishes the ballot, instructions appear for preparing and

returning the vote in a manner specified by the State of Michigan. Then the voter has the opportunity to fill out a voluntary survey.

2.2.6. A Tool to Save Vote is Time

It guarantees the streamlining of voting processes and the voter has the voting process done within 15 minutes. It can automatically populate the FWAB candidate data.

First, it will automatically link online to a Federal Post Card Application (FPCA) for the voters who are not already registered, saving them the process of going to the FVAP website, filling in the FPCA, then searching to find the State's return instructions. Making it faster and easier will result in higher rates of registration for our UOCAVA voters.

Second, it will populate the FPCA automatically for the voter from the information he/she entered at the initial login screen, saving them the trouble of entering the information twice. Making it faster and easier will result in higher rates of registration for our UOCAVA voters.

Third, it also will send that information digitally back to the city, so that after the form is received and reviewed by the city, it can be uploaded into the city's UOCAVA database and the Statewide Qualified Voter File (QVF) database when the City staff clicks on "Approve"; the earlier upload, replacing the current laborious process of keying in the FPCA information manually, will result in the voter getting registered almost instantly, rather than waiting several days to get registered. This speed will garner higher registration rates for our UOCAVA voters.

Fourth, it will automatically generate a fresh FPCA if the requestor's Yearlong UOCAVA FPCA File (YUFF) has expired at the end of a year, saving the voter the problem of taking multiple steps to renew his/her registration. Keeping the UOCAVA voter's QVF and YUFF enrollment updated will keep the process streamlined and easy for the UOCAVA voter.

2.3. Establish and Operate Sustainable & Affordable Electronic Tool

We know that the new EASE will bring savings to our current operation. The improvement in technologies can also be enhanced later on to be used mostly by our general population, which will bring in additional savings. The extra savings will enable us to maintain this tool in the coming years even without further funding from the FVAP.

2.4. An Estimation of the Reduction of the Failure Rates

Based on this table presented by FVAP (<u>www.nist.gov/itl/vote/upload/FVAP-2010-initiatives.ppt</u>), there were four main stages of voting process.

2008 Ge Militar	Detroit Using EASE In 2012 Elections			
Stage of voting process	Number of additional failures over general voting population	% of total failure	Estimated Future Failure Rate	Improvement Ratio
Registration Failure	3,936	1.4%	1%	29%
Ballot Delivery Failure	20,064	6.9%	3.4%	50%
Ballot Return Failure	213,779	74.0%	37%	50%
Ballot Casting Failure	51,283	17.7%	8.8%	50%

Our EASE will enhance UOCAVA voter participation rates and reduce failure at every stage of the voting process.

# 2.4.1. Reduction of Registration Failure

According to a study done by The Pew Center on The States, Michigan is one of 16 states that doesn't give residents who are overseas in the military enough time to vote (https://military.overseasvotefoundation.org/overseas/cms.htm?uri=%2Fhot-topics-complete-listing).

Based on an article titled "Michigan Considers E-Mailing Absentee Ballots Overseas" published by The Detroit News on October 15, 2009, "Chances of getting their votes counted are so slim for U.S. military personnel overseas, many servicemen and women don't bother to vote, according to testimony today on a bill to allow e-ballots in the state."

The FVAP grant will give us a chance to change our processes and our image. The EASE presents a much easier process to access the FPCA and FWAB. The convenience, speed, and changed perception that their ballots will be counted in time will lead to more UOCAVA voters registering via the EASE.

In the 2008 general election, we had 1,250 overseas military voters registered as absentee voters out of total 81,396 citywide. Once the EASE is implemented, we are confident we will increase our UOCAVA voter registration 50%. Therefore, we can increase to several hundred more UOCAVA voters.

Communications are the key for our future success. Firstly the EASE will find, gather, and organize the contact list and send a timely email to remind the coming election and his or her status of registration with extensive help and directions in the body of the emails.

Once the voter has updated his or her registration, ballot request application, or write-in FWAB, the EASE will automatically inform the voter of each stage of the process.

The EASE will allow the city to send an email to the voter asking for more information, or informing him/her if the application has been rejected and why.

Fourth, our EASE will intelligently link to the FVAP, State and City websites if there is additional helpful information for this voter.

Fifth, the system can send out mass emails to the voters from particular districts in advance notifying them of upcoming urgent changes. This will be particularly useful in the case of smaller, local elections; without an email from the local elections jurisdiction, the UOCAVA citizen wouldn't even know the election had been called.

We anticipate at least 29% reduction in the failure rate compared to the national UOCAVA failure rate.

# 2.4.2. Reduction of Ballot Delivery Failure

The program will provide a blank ballot to the UOCAVA voters online. If the voter is already in the QVF and hasn't changed their Michigan address, then they don't even have to wait for the Clerk to look up their precinct. If the voter is not already registered, the program will automatically provide the FPCA so the clerk can quickly register them and dispatch their un-voted ballot.

We anticipate at least 50% reduction in the failure rate compared to the national UOCAVA failure rate.

2.4.3. Reduction of Ballot Return Failure

The EASE will enhance ballot return by making it easier for voters to access, mark and learn the instructions for ballot returning. The FPCA can be returned online. The marked ballot for 2012 elections still has to be mailed by the voter. Due to proper communications and speedy deliveries of blank ballots, we believe that the failure rate of ballots returned will be reduced 50% from the 2008 national rate.

2.4.4. Reduction of Ballot Cast Failure

The EASE will reduce voting failures by making it much harder to make mistakes that invalidate a vote; many UOCAVA voters submit ballots that can't be counted. The program reduces mistakes by implementing on-screen marking, unified return format, and overvoting notices.

Our EASE will allow us to scan in the receipt of the ballot packet. The scanning speeds the verification process.

2.5. Detroit EASE Benefits Other Jurisdictions

Firstly we will provide a model of a successful electronic voting program for hundreds of jurisdictions in Michigan. Michigan's elections are administered by municipalities, not counties, so there are hundreds of jurisdictions, hence many more opportunities for the

administrator to make a mistake, or to misunderstand a directive. Not one of these jurisdictions currently has an electronic voting support wizard. When Detroit successfully launches this program, most of the other jurisdictions can soon piggy-back onto our program.

Secondly we are submitting another application for building a Smartphone mobile voting application, and a third grant is being submitted to have a third party to do a Risk Assessment. If the second and third grant applications are approved, successful launch of the Smartphone will immediately assist UOCAVA voters from other states, and will further benefit them once their states see the successful use of the smart phone voting and the controllable risk.

We have contacted the main counties in Michigan and brought in a lot of interest for this FVAP grant and future success of our projects. We will showcase our EASE experience in the coming 2012 conference so everyone can learn our ups and downs.

# 2.6. Security Measures to Protect Users' Data

Using EASE, we will install the following security measures to protect users' personal identifying information:

- 1. Encrypted data both at Servers and in transmission between server and user terminals.
- 2. Create web SSL layers to encrypt the web traffic further.
- 3. Use the encryption, which is compliant with the NIST FIPS certification
- 4. Enhance the city user password policy
- 5. Limit only certain city IP addresses to access the EASE administration console
- 6. Enhance the vendor service and maintenance plan to prevent un-authorized access
- 7. Build up extensive log recording for any user data access

2.7. Security Measures to Protect Transmitted Election Material

We focused our service and have confidence within the privacy, the confidentiality, and in the identity protection, which are critical elements of the American election process. Accordingly, our EASE:

- 1. Uses 256 bit encryption (the same encryption level for banking processes.)
- 2. Wipes the server memory of the voter's marks the instant the ballot PDF is generated.
- 3. Voting choices can't be hacked from the server. No voting occurs on the EASE server. This is recommended by the EAC and NIST in their security draft.
- 4. Voting choices can't be hacked from the voter's PC. The program scrubs the markings from the RAM of the voter's PC when the voter closes the program, so no hacker can discover how it was marked from the voter's own computer.
- 5. Ballots returned are safe. No votes can be hacked or subverted from Konnech's EASE because the program isn't an online voting system—it simply delivers the ballots electronically. If the State allows emailed returns, the voter would scan and sign, then accomplish the emailing of the packet him/herself—the program doesn't perform the emailing. Thus, the absentee ballot packet never resides on the program's server.
- 6. The EASE informs the administrator of each time the voter generated a ballot, as recommended by the EAC/NIST security draft, to prevent "copying, detect fraud, and assist in the ballot reconciliation process."

7. The Federal Voter Assistance Program (FVAP) commissioned security testing of Konnech's EVSW by two independent testing labs, SLI Global Solutions and Wyle Labs. These input from the tests will be integrated into our EASE.

Also, these are our standard security measures: **Facility Security** 

- Double hulled datacenter core
- Manned 24 X 7 X 365
- Biometric security scanner
- IPTV camera system with full recording
- Secured entrances from lobby
- 24 X 7 collocation access
- Large redundant Internet backbones including AT&T, Level 3 &UUnet).
- High Tech Datacenter
- Out of 500 year flood plain
- 2.0 Miles from CC Airport, not on landing patterns
- Exterior walls and floor poured concrete

# Data Center Core

- Phase I = 5K sq ft, Phase II = 10K sq ft
- Double walled & roofed exterior & interior

- Backup generator
- Redundant battery array
- Redundant backbone Internet connections

# DATA SECURITY

- Multi-Level roles
- Password Protection
- 30 minute (or other interval selected) time out
- Back-up server at a separate location

# **OPERATONAL SECURITY**

- Firewall between testing data and actual data.
- A challenge-response test.
- Comparison to established state and local databases.
- Email notifications to voters and to election administrators.
- Email addresses comparison and confirmation.

Primary power

# 2.8. Collaborative

We have contacted most cities in Michigan found that the collaborative interest is there. Due to Michigan's projected primary election in February 2012, the cities will be busy in September 2011 preparing for the primary. The time issue prevents many of them from applying for this grant. In addition, most are quite small, with few human resources and no IT professional on staff. As soon as our EASE proves to be successful, we should be able to assist any city or township if they want to use the modified EASE based on Michigan voting environment.

# 2.9. Cost Benefit Analysis

For proposed \$100,000 grant, we should deliver nearly 1,800 more UOCAVA ballots for the coming 2012 elections. The successful test and risk assessment of EASE and its add-on, Mobile Apps for iPhone or Android phone, will bring more meaningful benefits than most of other ideas and projects. The potential nationwide pool is 300,000 UOCAVA voters. It has the potential to change the UOCAVA voting totally and fundamentally forever.

#### 3. Schedule and Milestones:

### 3.1. Summary of the Schedule

We plan to start the project as soon as the contract is awarded and to run it all the way through and after Michigan's General Election.

Task	Duration	Start	Finish
FVAP EASE Project	314 days	9/1/11	12/31/12
Project Initial Planning	2.88 days	9/1/11	9/5/11
Meet Initial Requirements	16.5 days	9/5/11	9/28/11
Research, Design	17 days	9/28/11	10/21/11
Development	30 days	10/11/11	11/22/11
Field Test & Risk Assessment	34 days	1 <b>1/22/</b> 11	1/9/1 <b>2</b>
Documentation	26 days	1/9/1 <b>2</b>	2/14/12
2012 Primary Election 1	64 days	1/3/12	3/6/12
2012 Primary Election 2	92 days	6/1/12	8/31/12
2012 General Election	87 days	9/4/12	12/31/12

#### 3.2. The Intervals in Which Milestones Are Assessed for Progress

- a. EASE Initial Planning 2.88 Working Days 9/1/11-- 9/5/11
   We will determine project final scope, and organize project teams with focus in communications platform, State QVF and existing UOCAVA process integration. The preliminary resources will be further reviewed and secured. An FVAP Post-Award Conference will be conducted before September 5<sup>th</sup>.
- b. Team Requirements 16.5 days 9/5/11-- 9/28/11
   We will have our final project management plan not later than (NLT) Sept 12.

Feedback will be incorporated into the software plans once reviewed and approved by the FVAP. A more detailed delivery timeline may also be developed with the FVAP.

c. Design & Redesign 9/28/11--10/21/11

Based on the feedback from the city users, the preliminary software specifications and functional specifications will be further developed. The prototype based on functional specifications will be programmed. Demo to FVAP and other interested parties will be conducted before October 21, 2011.

d. Development 10/11/11--11/22/11

We will further review the functional specifications based on the feedback from the field and initial testing from the city users. It will be a continuing process of identifying modular/tiered design parameters, adjusting development staff workload, further developing and testing code (primary debugging). We plan to start the programming as soon as possible with the modification of our existing tools and to finish the programming before November 22, 2011.

e. Internal and Field Test 11/22/11 -- Tue 1/9/12

Internal and field tests will start as soon as the team is in place. As soon as the field test finished, the EASE will be ready to load the precinct and real database into the real site for the Primary Election on February 28, 2012.

- f. Documentation 01/09/11 -- 02/14/12 We will finalize Users and Operations Manuals before February 14, 2011.
- g. Primary Election 1 01/03/12-- 06/06/12
   Michigan anticipates a Feb 28, 2012 primary for presidential race, and August 7 for the rest. We will make our EASE available on January 14, so voters will have 45 days to access their full ballots via Mobile App.
- h. Primary Election 2 06/01/12-- 08/31/12
   We will have another Primary Election for candidates except presidential race. Our mobile app will be available on June 1, so voters will have more than 45 days to access their EASE. We will try to make full ballot available on June 23 so it is 45 calendar days in advance of election
- General Election 09/04/11-- 12/31/12 The Election Day is on November 6, 2012. We will make our EASE available to download continuously from the Primary Election for voters' submission of FPCA and FWAB in September 1. On September 26<sup>th</sup>, full blank ballot will be online. Therefore, our UOCAVA voters will have 45calendar days to access their full ballot via Mobile App.

We will closely communicate with the FVAP and wait for an approval if there are any planned change(s) in the above schedule.

Detroit EASE Grant Application For FVAP HQ0034

#### 4. Reports:

We will provide the following live, weekly, monthly and closing reports.

#### 4.1. Live On-Demand Reports and Statistics

- Number of new requests for ballots pending
- Number of requests for ballots that have so far been approved
- Number of requests for ballots that have been rejected
- Total Number of requests for ballots that have been received, approved, rejected, or pending.
- Number of voters on the UOCAVA lists
- Voter Request Events
- Voter Access Ballot Events
- Voter Download Ballot Events
- Number of entrees on the UOCAVA list

From the voluntary voter Satisfaction Survey:

- Number of Satisfaction Surveys submitted
- Number and percentage of survey responders who reply that they are casting an absentee ballot for the first time
- Number and percentage of survey responders who reply that they found it convenient to obtain their ballots online
- Number and percentage of survey responders who reply that they would or would not like to obtain their ballots online in the future
- Number and percentage of survey responders who reply that this method of absentee voting was Very Satisfactory, OK, Somewhat Satisfactory, or Not Satisfactory

# 4.2. Weekly Report

Weekly report of Traffic Analytic related to Site Usage, Bounce Rate, Page Views, Direct Traffic, Referring Sites, Search Engines, Pages per visit, Average Time on site, New Visits, Countries (name & number and percentage of users), Average Time on Page, Exit percentage.

# 4.3. Monthly Report

Each month, the Project Managers will prepare a programmatic and financial progress report. Within two weeks after the end of the reporting period, the report will be delivered in hard copy or electronically by email. The report will be substantially in the following format:

- (1) Executive Summary
- (2) Project plan status and variance
- (3) Budget status and variance

(4) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented

Each month, the Project Managers will also prepare a status report. The status report will be delivered in hard copy or electronically by email. The report will be substantially in the following format:

- (1) Executive Summary
- (2) Summary of accomplishments from the preceding period
- (3) Summary of activity planned for the upcoming period

(4) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented

# 4.4. Final Report at Completion

- Total number of ballots requested on-line
- Total Help-desk requests
- Countries accessed
- Satisfaction levels
- Voter status
- Voter types
- Ballots mailed
- Ballots faxed
- Ballots emailed
- Ballots approved
- Ballots returned

# 5. Management Approach

We, the Department of Elections, City of Detroit, have decided to work with our contractor, Konnech Inc., to develop an Electronic Absentee System for Elections (EASE) for our UOCAVA voters.

# 5.1. Definition and Formalization of Our Strategic Goals

As the largest city in Michigan, our strategic goal is to use the EASE to change the image of Detroit's service to UOCAVA voters. The existing image is that the delay of ballot delivery and return causes most of the UOCAVA ballots to go uncounted. Many of our UOCAVA citizens are not even trying to register and to apply for ballots due to the poor image of Michigan and Detroit with late ballot delivery and with many uncounted ballots due to the missing of the deadline.

Using the technologies of the EASE, we aim to increase our registration and ballot requests (FPCAs) 29% from the general UOCAVA request rate, as well as provisional FWABs as hedges against return of full ballots. These goals are targeted for the 2012 General Election. We also aim to reduce both our ballot delivery and return failure rates 50% from the general UOCAVA failure rate. We design our goal with these facts in mind. The first is the high percentage of our UOCAVA voters who historically are not participating in voting. The initial stage funding from the FVAP will help us to communicate with our voters better.

Michigan requires absentee voters to have their signatures on all stages of their registration, ballot requests, and ballot returns. It creates a bottleneck for our UOCAVA voters since a printer and scanner is required for signing their signature onto the form and then returning by email. In addition, many of our warriors do not have regular access to Internet connected computers. We wish to test Konnech's Mobile App as an alternative access interface for our voters. The Mobile App should enhance our registration and ballot request another 50%, and reduce our failure rate of ballot delivery and return 100%. Since wireless phone voting is a totally new concept, risk and reliability are main concerns. We will organize a Risk Assessment project with the University of South Alabama. Therefore, this grant is to build up the database and basic applications for both the city administration and UOCAVA voters. The Mobile App is strictly an add-on to provide Smartphone access to the EASE using iPhone or Android powered phone sets.

In the final stage, we will present our experience as a showcase; presenting our testing results to the cities and townships in Michigan so all jurisdictions can benefit. Once all jurisdictions see the positive results from Detroit, more jurisdictions will use the EASE. Once there are a group of EASE using jurisdictions and UOCAVA users, there will be an unstoppable trend to improve the UOCAVA voting in Michigan and even the whole nation.

# 5.2. Analysis and Measurement of Current Processes;

# 5.2.1. Detroit Image Change Related to UOCAVA Ballot Service

One method is to use the technologies to make some changes in serving our UOCAVA voters. The poor image is due to many factors and years of lack of participation from UOCAVA voters. We have to overcome the image issues one by one within the boundary of state laws and regulations. The new technologies have

been presented by an innovative local company with a long term affordable price. We want to join the trend of cutting costs while improving our service by using advanced technologies. The end measurement of this image change will be overall improvement of our UOCAVA voters' and election staff's satisfaction.

# 5.2.2. Provide Easier Way to Request Full Ballot

We will provide additional ballot-request avenues for our UOCAVA voters. In addition to current mail or fax, our EASE will allow our voters to submit the FPCA and FWAB using their Internet connected computer. A measurable improvement will be the time savings for our UOCAVA voters and our staff processing time of each received ballot. We anticipate over 50% of time saving minimum for our voters and 20% time saving for our staff. Our voters will submit both their FPCAs and FWABs within 15 minutes. Our staff will receive a crystal clear image of the FPCA and FWAB every time. Now, many of the mailed and faxed images are hard to read.

# 5.2.3. Track Voters' Paper Ballot Request/Delivery

Our UOCAVA voters will be able to log on their EASE to check the status of their ballot request and the shipping status of their full paper ballots. This will be a totally new service.

# 5.2.4. Provide Better Way to Deliver Blank Ballot

Michigan allows our UOCAVA voters to receive ballots online. The qualified voter will log onto the EASE to mark the full ballot, sign, print and mail their marked ballot back. This has never been done before. Therefore, the EASE makes it a totally brand new service.

# 5.2.5. Test the Technologies for Michigan

Our strategic goals are to find the industry expert in EASE business with an approved track record with the city, and experience in the election industry. Konnech, one of our current vendors, provided the EVSW service for FVAP to 3 states in 2010, and an election logistic management system for Detroit for the past 3 years.

We are the only city in Michigan with this kind of project. Our final measurements for this project are these pilot project results and reports, which are critical for most jurisdictions in Michigan.

# 5.3. Identification of Each Process and the Related Elements

# 5.3.1. Easy Ballot Request or FPCA & FWAB Submission

Most of the information is the same in both FPCA and FWAB. Voters are required to submit their FPCA each year to be qualified as the UOCAVA voters. FWAB can be also submitted for the coming election with their federal and state write-in candidates. Michigan's new election law allows the voters to submit their name, resident address and signature online to apply for their absentee ballot.

The processing transparency will enhance the voters' participation. In addition to the prior EVSW online version, the voters can also check the following information through the new EASE:

- My Ballot Application Status
- My Paper Ballot Delivery Status
- My Polling Location
- My Help Contacts

# 5.3.2. Easy Blank Ballot Delivery

We are required to transmit the ballot 45 days in advance of the election. Michigan has a short window. Therefore, the online delivery becomes critical. The steps are:

- Gather UOCAVA contact information
- Initial communication related to voter qualification as UOCAVA voter
- Notification of blank ballot delivery based on voters' request of delivery method
- Availability of delivery status

# 5.3.3. Easy Ballot Return

EASE will help us to have close communications with our voters. It is critical for our UOCAVA voters since there is a shorter return period for their marked ballot.

- Updated ballot return instructions
- Ballot receiving scanning
- Automatic posting of ballot received status in EASE
- Report reviewing to improve future operation

# 5.3.4. Better Quality of Cast Ballot

Most of the information is the same in both FPCA and FWAB. Voters are required to submit their FPCA each year to be qualified as the UOCAVA voters. FWAB can be also submitted for the coming election with their federal and state write-in candidates. Michigan's new election law allows the voters to submit their name, resident address and signature online to apply for their absentee ballot.

# 5.3.5. Project Management Methodology

Close communications with a technology partner is more effective than hierarchy, collaboration is more effective than debate, seamless software is more effective than complex documentation, and flexibility in adapting to changing circumstances is more effective than rigid blueprints. We have discovered that in working with our vendor in the past. We know that in addition to meeting the minimum requirements, they will provide the most useful tools, which will enhance the program and add to overall value.

Konnech uses an Agile Project Methodology known as SCRUM to engineer its projects because there's a fairly high incidence of changing needs that require flexibility to redesign the programs. Agile as a software development methodology is fast becoming a popular approach due to its ability to react to business changes. SCRUM divides the project into three major divisions: planning and system architecture, sprints, and closure.

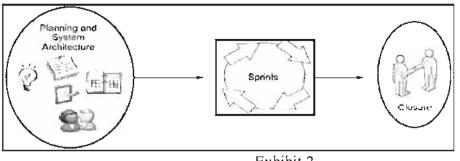
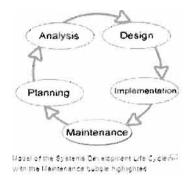


Exhibit 2

In the planning and system architecture division, we research the special needs and requirements of the end users and design the architecture; these are 15 to 30 day cycles using small cross functional teams to deliver shippable software sections; and closure includes the installation, training, and acceptance of the completed project.

Ideally, every sprint will include each element of the SDLC (Systems Development Life Cycle) process shown in the right Exhibit 3.

For this project, Konnech's project manager would meet with the city users involved with the tool usage to compare the look and feel of our existing product or new testing tools to the idealized version as envisioned by the FVAP. We would collect samples of the data to be uploaded, the current databases, the finished



ballots, etc. This research and fact-finding is absolutely critical to successful project completion.

We would then divide the software coding into manageable sprints. Each sprint would include phone conferences with Webinars, analysis of the information, design of the changes, and layout of the redesigned product on a web based prototype site, feedback, and revision.

After the confirmation from the end users with that sprint, we can install it on an actual test site.

# 5.3.6. Steps to Build the EASE

We will go through the following steps to build up our EASE.

- Teleconferences
- Establish SharePoint Server for Content Management
- View the prototype
- Comment on prototype
- Fact finding

- Draw up edited prototype
- Reach agreement on edited prototype
- Build testing sites
- Test testing sites
- Build actual sites
- Launch actual sites

#### 5.4. Identification of Potential Risks and Mitigating Strategies

There are 2 testing labs, which have just finished their security test for Konnech's EVSW. The new version of EASE will incorporate all good feedback from the test. The vendor is willing to work with us for additional testing during the implementation of this EASE by the security team from University of South Alabama.

#### 5.4.1. Voter Interfaces Exposure

The voter interfaces are open-target since it is open to the public. Hackers could try to attack the EASE server through the voter interfaces for voters' private data mining, contact information changing, candidate name fixing within the FWAB write-in form, or virus injection. A successful attack would cause major damage to our election.

Besides using the conventional methods of preventions like SSL, encryption data, we also use the same in-house developed software to protect the database.

During the penetration test provided by one of FVAP funded testing labs, the attacker successfully passed the Cisco firewall, Symantec software firewall, and tried to control the server. Our anti-attack software promptly found the attacking behavior and successfully stopped the attacker.

# 5.4.2. Administration Console Exposure

Beside the application software hack prevention, SSL is used to protect data while it is in transmission. In addition, the encryption of data in transmission and in the servers is also important. The encryption has to be in compliance with NIST FIPS certification.

In addition, we have built up fixed IP access for the city. For remote use, there is a USB key with additional security for access. Without public access, the risk should be dramatically reduced.

# 5.5. Formalization of Performance Indicators

# 5.5.1. Ballot Application Increase Rate

We have had General Election in past 3 years with the following UOCAVA requests.

	2010	2009	2008
Military	84	7	1,250
Overseas Civilian	<u>38</u>	<u>3</u>	<u>586</u>
Total	122	10	1,836

Our goal is to increase the UOCAVA voter ballot application by 50%, which means that there will be 918 more potential voters for the 2012 General Elections.

# 5.5.2. Marked Ballot Return Rate

We have the history data of total absentee ballots mailed and returned by deadline for our general population.

	2010	2009	2008
Total Absentee Ballot Issued	49,117	46,544	81,396
Ballot Returned by Deadline	<u>44,739</u>	<u>41,829</u>	<u>78,563</u>
Return Ratio	91.1%	89.9%	96.5%

We have not collected the information just for UOCAVA voters for their returned ballots. The grant funding will allow us to collect the UOCAVA return data and to improve our tracking and service of our UOCAVA voters.

# 5.6. Justification for the Modification

Detroit is an American bench-mark city with the hope of recovery in its local economy. With the grant supported improvement in election technologies, our department should be able to show our UOCAVA voters that we listen to their concerns and needs. We should be able to provide as good of service as any other jurisdiction in the entire country. This EASE presents us with one of these opportunities.

# 5.7. Projections of the Effectiveness of Modifications

5.7.1. UOCAVA Voters' Satisfaction Survey We will program a satisfaction survey into our EASE so our EASE users can give us their feedback to help us to improve our service over years.



# 5.7.2. Election Staff's Performance

#### Improvement

Due to the city budget issue, we could not increase our staffs to deal with more absentee voters in general. In fact, in 2010 we had to cut the staff by 33%. Therefore, we must rely on technology as our solution to improve our staff's productivity while maintaining their job satisfaction levels.

# 5.7.3. Real Time UOCAVA Management and Better Reporting

In the past, we could not separate the UOCAVA ballot return and delivery failure rate from the general population. With this project, we should be able to collect the data in real-time. More detailed reports can be generated in just a few clicks of a mouse button.

# 5.8. Measurements of Performance

The measurement of our performance can be the higher voter registration and ballot requests. We anticipate the EASE should increase our ballot requests in 2012 General Election to 50% over 2008 General Election level, which will be at least 918 more UOCAVA voters.

In addition, we want to add the Mobile App for iPhone/iPad and Google Android powered smart phones to our EASE so our UOCAVA voters can access their ballot through both the Internet connected computer and/or their Smartphone. For our city staffs, they will use only one set of administrative console to manage all phases of the UPCAVA voting process effectively and efficiently.

By using this cutting edge technology first in the country, we will focus our study of the systems stability, expandability and security in the first 3 months. Once the quick test has provided successfully, we will use the new tools for our 2012 primary and general election. No matter if the real usage proves to be successful or failure, we will publish our studies so everyone in the country can learn from our mistakes.

It is going to be an exciting project. We look forward to having your support to start this critical project for our city.

# 6. Current and Pending Project Proposal Submissions:

### 6.1. Related or Complementary Proposal Submission 1

• Title of Proposal and Summary;

Title: Detroit EASE Mobile App Project

Summary:

We, the City of Detroit, Department of Elections, want to test an Electronic Voting System Wizard (EVSW) Mobile App solution from Konnech Inc. for the coming 2012 elections. Konnech is one of our current vendors providing us Poll Location Management and Poll Worker Management Solutions since 2008. As a 2010 FVAP EVSW winner, Konnech understands the challenges of absentee voting, which includes the UOCAVA voting. They have developed the lab-testing version of a smart phone Mobile App, which they demonstrated to FVAP in Arlington, Virginia on May 2, 2011. It has the following features, which enhance the EVSW online voter access dramatically:

- Use the mobile phone screen as the signature pad so voters do not need to print and then scan the document to email the marked ballot.
- The Mobile App creates a secured storage space so personal data can be reused for FPCA, FWAB and ballot submission for coming election(s).

Many more unique features of the Mobile App are discussed within our proposal.

There will be 142.8 million smart phone users in the USA and 449 million globally by the end of 2011. Owners use their smart phones 4.6 hours a day on average. Most US uniformed personnel have a smart phone in their hands. The total downloads from mobile app stores will reach 17.7 billion in 2011. We believe that Konnech's Mobile App for EVSW could improve UOCAVA voter access and ballot return dramatically. If used by all States, hundred thousands more UOCAVA ballots would be counted for each of the coming elections in 2012.

- It gets the right ballots to and from the voters quicker than any other previous method.
- Once the risks are well-assessed and well-tested, more jurisdictions will adopt it. It will open the flood gate of ballot requests from UOCAVA voters.
- The effectiveness and low cost will assist States to change laws to comply with the MOVE Act.

Security is our main concern in using the mobile device to conduct elections. Extensive and exhaustive testing and risk analysis by both internal and an expert team are needed. We ask for FVAP funding to do the following:

- Build up our city testing environment for EVSW Mobile App
- Run a Mock Election with at least 1,000 overseas US citizens
- Conduct Risk Analysis
  - o Server hardware and software NIST FIPS compliance test
  - o Mobile User Interface (UI) security and personal data safety tests
  - o To assist a third party to conduct the Risk Assessment Test

To have a better control of grant funding and security firewall between internal and external testing, we are submitting 3 grants. One is for EASE. The second is this grant for the EASE Mobile App. The last one is for Risk Assessment. The first and second grants will be subcontracted with Konnech Inc. The last one will be with the University of South Alabama.

- source and amount of funding (annual direct costs; provide contract and/or grant numbers for current contracts/grants); *Another grant proposal submitted to FVAP (BAA number: HQ0034-FVAP-11-BAA-0001) (pending)*
- percentage effort devoted to each project; 100%
- identity of prime applicant and complete list of subcontractors, if applicable; *Primary Applicant: City of Detroit Subcontractor: Konnech Inc.*
- technical contact (name, address, phone/fax, and email address);

Kelly Neuder 4211 Okemos Road, Suite 3 & 4 Okemos, MI 48864 517.381.1830 Fax: 877.301.0793 Kelly(a)konnech.com

- period of performance; From September 1 to December 31, 2011
- proposed project and all other projects or activities requiring a portion of time of the senior personnel must be included, even if they receive no salary from the project(s);
   25% Kimberly Wallace
- award period and amount including indirect costs as well as the number of person-months or labor hours that are to be devoted to the project(s), regardless of support; and *Award Period: From September 1 to December 31, 2011 Grant Proposed Amount: \$396,065*
- how projects are related to the proposed effort and indicate the degree of overlap. This grant is to build up the EASE Mobile Application (Mobile App), which will be accessed by only by voters. Another related grant is to build up the EASE so the Smartphone users can also access the voter's interfaces through Internet connected computer in addition to their Smartphone. There is no overlap for the city administrator database and control console. Another grant will fund our partnership with University of South Alabama to assess the risks for both the EASE and its Mobile App. The risk assessment grant is based on the successful funding of the EASE and it Mobile App grants.

# 6.2. Related or Complementary Proposal Submission 2

• Title of Proposal and Summary;

*Title: Electronic Absentee Voting Risk Assessment: Comparing Mail-in to Online Plus Mobile Device Balloting* 

#### Summary:

Electronic alternatives, including online voting and voting with mobile devices, are now available that promise to make absentee voting more efficient and effective. Electronic voting alternatives are particularly attractive for overseas citizens and military personnel that have no other choice than by mail. Electronic voting system components, including support for online voting and voting with mobile add-ons, are currently under consideration for use in Detroit, Michigan. These electronic alternatives offer potential to enfranchise Military and Overseas voters in Detroit and across the United States. With any change, however, comes risk.

Electronic absentee system components, while clearly advantageous in terms of the ability to deliver the vote in a more timely way, and with fewer ballots lost or arriving late, nevertheless introduces new threats. Electronic voting systems are subject to cyber attacks, malware intrusions, technical failures, and user error. Some electronic voting alternatives, particularly precinct-based optical scanners and direct record electronic machines, have been used for a number of years, and the risks are well understood. Other technology alternatives, such as web-based online voting, and voting with mobile devices, are much newer and pose a variety of risks. An understanding of these risks is a necessary and important part of the process of new technology evaluation. In this project, we propose to apply novel risk management methods to perform a comparative risk assessment of absentee voting alternatives for the City of Detroit using a risk assessment process created for the United States Election Assistance Commission (EAC). Our approach relies on the skills of independent experts and a spreadsheet-based simulation tool to compare electronic options under consideration.

- source and amount of funding (annual direct costs; provide contract and/or grant numbers for current contracts/grants); Another grant proposal submitted to FVAP (BAA number: HQ0034-FVAP-11-BAA-0001) (pending)
- percentage effort devoted to each project; 100%
- identity of prime applicant and complete list of subcontractors, if applicable; *Primary Applicant: City of Detroit Subcontractor: University of South Alabama*
- technical contact (name, address, phone/fax, and email address);

Dr. Jeff Landry University of South Alabama 307 University Blvd, North Mobile, Alabama 36688

# jlandry@usouthal.edu 251.461.1596

• period of performance;

September 1, 2011 through September 30, 2012

- proposed project and all other projects or activities requiring a portion of time of the senior personnel must be included, even if they receive no salary from the project(s);
   10% Kimberly Wallace
- award period and amount including indirect costs as well as the number of person-months or labor hours that are to be devoted to the project(s), regardless of support; and

Award Period: September 1, 2011 through September 30, 2012

Grant Proposed Amount: \$119,070

how projects are related to the proposed effort and indicate the degree of overlap.
 Risks of wireless voting system are not well-known in the election industry. This pilot project will be a good learning process for the industry as whole. It is to protect the health growth of the wireless voting technology to secure the voting process of US and to speed up the process of digital voting, which will overcome these key bottleneck issues like ballot delivery and return securely and reliably.

# 7. Qualifications

Qualifications of Our Key Personnel for This Project

Kimberly Wallace, City Project Manager, obtained both Master of Science (Computer Information System) and Bachelor of Science (Computer Information System) degrees from University of Detroit Mercy, Detroit, Michigan in 1999 and in 1996. Since then, she is certified with the followings:

- Microsoft Office User Specialist: 2003, XP, 2000, 97
- Microsoft Certified Technology Specialist SQL Server
- Microsoft Certified Professional
- CompTIA Network+ Certified Professional
- CompTIA A+ Certified Service Professional
- International Business Administration
- UNIX O/S & C Programming
- EDUCATION AND TRAINING

Currently, she is the Computer Systems Support Manager for the Department of Elections, City of Detroit. She supervise, plan and direct the various activities of data processing, network and telecommunications, which include all computer operations, programming and systems development. Coordinate the various data processing and communication needs in the most efficient and timely manner. Work is of a complex technical nature, involving a great deal of creativity, perception and initiative as well as a high level of independent judgment. She is a computer Professional with over thirteen years experience providing technical training and assistance to business professionals and students, demonstrated ability to integrate computer skills, customer support experience, project management and related education to exceed technical, business, and customer requirements, and is skilled at troubleshooting and fixing problems while, minimizing customer stress levels.

Eugene Yu, our project manager, obtained his MBA degree in 1988 from the Babcock Graduate School of Management of Wake Forest University, and his BS degree from Zhejiang University, P.R. China in 1982, one of the best engineering schools in China. He was a member of BICSI with extensive experience in server room design, installation and web hosting service as a Microsoft Hosting Service Partners' technical contact for Konnech. He completed the IT project management course at Lansing Community College in 2008. He has led the team to finish several large online web application suites for the election industry and in school districts, including the EASE project with FVAP for 3 States in 2010. From his 20 years experience in technology and management, he is well-qualified to lead his team to successfully accomplish this FVAP Data Migration Tool mission.

Anne Wang is our Technical Manager with a Master Degree in Information Science from the University of South Florida, Tampa, FL and Associate Degree of Computer Support from Lansing Community College, Lansing, Michigan. She is certified with Microsoft Application Software Training, CompTIA A+ Certificate Training. Since 2005, she has organized her programmer team to finish a number of large projects in the election and educational industries for Konnech.

Heather Zeng, Documentation Manager, has a Master Degree of Computer Science from the HuaZhong University of Science and Technology, Wuhan, P.R. China, and taken the C# and SQL programming courses in Lansing Community College in 2005. She develops training material, prepares user manuals, and upgrades test manuals for ABVote state and county users and PollChief<sup>®</sup> city and county users.

Kelly Neuder, Support Manager, has her Bachelor of Arts in Communication from Michigan State University. Since 2008, she has been working at Konnech providing customer service and support to the Department of Elections, City of Detroit and Leon County, Florida starting in 2009, and the ES&S project in 2010. She has managed project planning, overseen website production, ensured quality control, conducted alpha testing, managed beta testing, operated three database systems, interfaced between users and product engineers, created page designs using Hypersnap 6 and Visio, trained users, provided help desk support, demonstrated help desk, written instruction documents. She will lead the FVAP project if we are awarded this contract.

Laura Potter, Business Development Manager/Account Manager, has extensive customer service experience. She researches and analyzes election industry activities, coordinates election demonstration projects and oversees marketing. She successfully completed our PollChief project with Leon County, Florida in 2009, and our last project with the FVAP by coordinating all activities with the FVAP, BTA, states, counties, and voting equipment vendors smoothly in addition to the activities with ES&S and jurisdictions in 2010. She has the expertise in communications needed to have our project well-planned and coordinated with outside parties.

#### Resume - Kimberly Wallace

(b)(6)

#### SUMMARY

Computer Professional with over thirteen years experience providing technical training and assistance to business professionals and students. Demonstrated ability to integrate computer skills, customer support experience, project management and related education to exceed technical, business, and customer requirements. Skilled at troubleshooting and fixing problems while, minimizing customer stress levels. Professionally certified by CompTIA and Microsoft.

#### SKILLS

	Technical Training	Help Desk	Project
		Operations	Management
$\Box$	Desktop Systems	Customer Service	Preventative
			Maintenance
	System Tuning	Analysis	Component Repair
	Microsoft	Microsoft Office	Microsoft
V	Vindows		Networking

#### EXPERIENCE

#### CITY OF DETROIT/DEPT OF ELECTIONS, Detroit, MI

#### Computer Systems Support - Manager

Supervise, plan and direct the various activities of data processing, network and telecommunications, which include all computer/PBX operations, programming and systems development. Coordinate the various data processing and communication needs in the most efficient and timely manner. Work is of a complex technical nature, involving a great deal of creativity, perception and initiative as well as a high level of independent judgment.

- Program Local Municipal Elections
- Perform Diagnostic on various election equipment
- Update and maintain the Dept of Election website
- Participate in the selection of new colleagues.
- Train, develop and evaluate colleagues.
- Develop overall strategy related to the design, implementation, operation, and security of computers, networks and telecommunication systems.
- Direct colleagues in the planning of work schedules and maintenance of operations.
- Establish and maintain work standards, methods and procedures.
- Assist in the selection of hardware and software for information, network and communication systems.
- Report to management on progress of developments.
- Direct establishment of user training in relation to computer/communication systems.
- Ensure implementation of and adherence to local security procedures.

2007 - Present

• Regular contact with others outside the work group to coordinate computer, network, and communication system needs.

# WAYNE COUNTY COMMUNITY COLLGE DISTRICT, Detroit, MI

2007 - Present

# Distance Learning Instructor

Developed and delivered online training to prepare students for a degree/career in Computer Information Systems via Blackboard. Rendered instructions on a diverse range of Information Technology subject matters including:

- Internet Business
- Site Development
- Network Technology

# Part-time Instructor

Lecture students to cultivate skills to create, present, and collaborate on professional presentations by using Microsoft PowerPoint software, as a visual communication tool, to create remarkable presentations with enhanced multimedia capabilities.

# FOCUS: HOPE INFORMATION TECHNOLOGIES CENTER, Detroit, MI 1999 - Present

# LEAD P.C. Technician Instructor

Managed instructors, teacher assistants and students enrolled in P.C. Technology courses. Assisted system administrator with hardware and software problems, provided troubleshooting, and owned desktop and network issues to resolution. Perform maintenance of computer lab PC's and peripheral equipment. Identify problems and provide appropriate solutions. Install operating systems and applications and facilitated new hire classes, technical training demonstrations as well as corporate training.

- Built, maintained, and repaired computer systems to improve speed, reliability, and efficiency of operation.
- Prototyped system upgrades to identify potential problems and learned to operate and troubleshoot new systems.
- Analyzed frequent problems or potential conflicts and consulted with Training Staff and System Administrator to design and implement a solution in order to address the concerns.
- Demonstrated high quality, results-driven, prompt, and professional technical service and support to instill confidence in technical advice and directions.
- Reduced stress levels of management by adopting a cooperative attitude and positive approach to every task and assignment.
- Manage projects for fundraising efforts and student exposure for possible internship opportunities
- Organize Monthly Mentor group between students and Ford Motor Company professional
- Earned recognition from CompTIA for leading an entire class to 100% CompTIA A+ Certified.

PARSER I.T. PROVIDER, Warren, MI Technical Consultant (Lead Deployment Specialist) 2000 - 2001

Lead a diverse group in the deployment of a new Desktop launch for St. John Hospital and its subsidiaries. Required the evaluation of current hardware and upgrade, retire or acquire new hardware to meet clients and system specifications.

- Loaded the 2000 core desktop image for several end-users
- Performed BIOS flash after hardware installations
- Executed quality testing
- Confirm user log-ins, drive mappings and accessibility of resource

# AIRTOUCH WIRELESS COMMUNICATIONS, Southfield, MI Network Analysis

1998 - 1999

Maintain the integrity of the cellular network for the Great lake region and Northern Ohio. Used several different applications and ran customized scripts to manipulate the imported data from several switches throughout the network.

- Analyzed the data from multiple switches to determine the performance of the cellular network
- Created queries to evaluate data imported from switches for possible problems.
- Liaised between customer operations and engineering group to disseminate technical information and customer concerns
- Facilitated technical/informative meetings for departmental and regional managers
- Trained marketing team and sales reps on the usage of new handset equipment

# **Technical Knowledge**

**Operating Systems:** Windows2003, Windows XP Pro, Windows2000, NT Server, Windows 95&98, Novell 5.1, Novell ZEN, MS DOS 6.X, UNIX SCO.

<u>Computer Languages:</u> Visual C++, HTML, Perl, Pascal, COBOL, FORTRAN, and UNIX Shell Scripts.

<u>Utilities/Application:</u> Virtual Machine, Norton Ghost, Norton Anti-Virus, MS Office, Fox Pro, NetG, Corel Suite, Rbase 4.0, Exchange 5.5, Lotus Notes, Outlook.

Hardware Installations: Hard Drives, CD-ROMs, Network Cards, RAM, Floppy drives, SCSI controllers, Sound Cards, Printers, and Modems, USB devices.

# EDUCATION AND TRAINING

University of Detroit Mercy, Detroit, Michigan Master of Science (Computer Information System), 1999

University of Detroit Mercy, Detroit, Michigan Bachelor of Science (Computer Information System), 1996

Wayne County Community College, Detroit, Michigan Associate of Applied Science (Computer Information System), 1994

# CERTIFICATIONS

Microsoft Office User Specialist: 2003, XP, 2000, 97

Detroit EASE Grant Application For FVAP HQ0034

> Microsoft Certified Technology Specialist Microsoft Certified Professional CompTIA Network+ Certified Professional CompTIA A+ Certified Service Professional International Business Administration UNIX O/S & C Programming

#### Volume 2 - Budget Proposal Detroit Electronic Absentee System for Elections (EASE)

#### 1) Catalog of Federal Domestic Assistance Number: 12.217

#### 2) BAA number: HQ0034-FVAP-11-BAA-0001

3) Title of Proposal: Detroit Electronic Absentee System for Elections (EASE)

4) CAGE Code: (b)(4) and DUNs Number: (b)(4)

5) Applicant: Department of Elections City of Detroit 2978 W. Grand Blvd Detroit, MI 48202

Subcontractor: Konnech Inc CAGE Code: (b)(4) and DUNs Number

> 6) Technical contact: Kelly Neuder Konnech Inc.
>  4211 Okemos, Okemos, MI 48864 (517) 381-1830 Fax: (877) 301-0793 Kelly@konnech.com

#### 7) Administrative/ business contact:

Gina C. Avery Department of Elections City of Detroit 2978 W. Grand Blvd Detroit, MI 48202 (313) 876-0221 FAX: (313) 876-0053 averyg@detroitmi.gov

#### 8) Proposed period of performance

From September 1, 2011 to November 31, 2012

# II. Budget Proposal – July 1, 2011

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# 1. Itemized Budget:

The itemized budget contains a detailed list of the following:

### 1.1. Direct Labor:

None

- **1.2. Administrative and clerical labor:** None
- **1.3.** Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.): None

# 1.4. Travel:

None

# 1.5. Subcontracts/sub awards:

Attached below please find the subcontract items in the detail.

### 1.5.1. Contractor Direct Labor:

Contracted Labor Categories	<u>Rate</u>	Hours
Co-Project Manager	\$195	51
Technical Manager	\$175	45
Documentation Manager	\$150	69
Developer 1	\$150	69
Developer 2	\$150	107
Tester I	\$125	91
Tester 2	\$125	77
Project Coordinator	\$75	125

# **1.5.2.** Contractor Administrative and clerical labor: None

# 1.5.3. Contractor Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):

Labor Categories	TOTAL WAGES	FICA (7.65%)	MESC (2.4%)	WORKERS' COMP (1%)	TOTAL
City Project Manager	0	0	0	0	\$0
Co-Project Manager	9,945	761	239	99	\$11,044
Technical Manager	7,875	602	189	79	\$8,745
Documentation Manager	10,350	792	248	104	\$11,494
Developer 1	10,350	792	248	104	\$11,494
Developer 2	16,050	1,228	385	161	\$17,824
Tester 1	11,375	870	273	114	\$12,632
Tester 2	9,625	736	231	96	\$10,689
Project Coordinator	9,375	717	225	94	\$10,411

# 1.5.4. Contractor Travel:

Total

<u>Item Name</u>	<u>Detail</u>	<u>Total</u>
Staffs Mileage	100 mi x .51/mile x 15 mo	\$765
Webinar & Conference	57 mo x 15	\$855
Air fare & Taxi	900 (1 trips and 2 staffs )	\$1,800
Meals & Lodging (2 staff)	\$182/day x 2 nights x 2 staffs	\$728
Meals on travel days	53.25/day x 4 days	<u>\$213</u>
		\$4,361

Webinar and online conference calls are the main tools to reduce the travel cost. We have planed frequent trip to our leased telecomm data center at Lansing by car, and 1 trip to Arlington by 2 persons for a meeting at DC.

# 1.5.5. Contractor Subcontracts/sub awards:

None

#### 1.5.6. Contractor Consultants:

Unless separately identified in the prime contractor's proposal, provide a breakdown of the consultant's hours, the hourly rate proposed, and any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work. None

# 1.5.7. Contractor Materials and Supplies:

Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

<u>Item Name</u>	Detail	<u>Total</u>
Envelopes, Pens, Paper, Folders, etc.	10/month x 15 months	\$150
Postage	10/month x 15 months	<u>\$150</u>
		\$300

# 1.5.8. Contractor Other Direct Costs:

Provide an itemized list of all other proposed other direct costs such as contractors, equipment rental/user fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

The key part of this grant proposal is to build up the EASE hardware and software so we can also add EASE Mobile App, which is a piece of software available for Smartphone users to down load from Apple Store, Google MarketPlace and our city's web site. The UOCAVA voters can use either Internet connected computer or their Smartphone using Mobile App to do online or mobile voting.

Item Name	Detail		Total
Telecomm Data Center Space Rent	pace Rent \$2000/mo x 10% x 15 months		\$3,000
Facilities utilities	\$500 mo x 10% x 15		\$750
Facilities insurance	\$100 mo x 10% x 15		\$150
Facilities Cable & Internet	\$150 mo * 10% x 10		\$225
Other Staff Development	60*3		\$180
Total In-Kind for Whole Project	2% of Total Project Cost		<u>\$5,427</u>
			9,732
Hardware		<u>Unit</u>	Amount
Dell <sup>™</sup> PowerEdge <sup>™</sup> R510 servers with Intel® Xeon®			
Processors E5563 series		2	\$19,460
Dell PowerEdge R910 rack servers with Intel Xeon		•	ድረር ነርነ
Processors 7560		3	\$65,151
Cisco <sup>™</sup> 7200 VXR Routers		1	\$10,000
<ul> <li>SonicWALL® E-Class Network</li> </ul>		I	\$28,822
<u>Software</u>			
<ul> <li>Checkpoint® Firewall Software Blade</li> </ul>		1	\$3,000
McAfee® Total Protection/ePolicy		1	\$150
Microsoft® SQL Server® 2008		2	\$39,318
• Symantec <sup>™</sup> Backup Exec 12 (include	ed in Dell's		
Hardware Quotation)			\$0
Windows Server® 2008 R2 Enterpris	e (included in		
Dell's Hardware Quotation)			<u>\$0</u>
		Total	\$165,901

2 R510 and 2 R910 will be used to build a cluster server at the telecomm data center. Another R910 will be installed at a remote data center, which will be mirrored to telecomm data center cluster server.

# 1.6. Consultants:

Unless separately identified in the prime contractor's proposal, provide a breakdown of the consultant's hours, the hourly rate proposed, and any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work.

None

# 1.7. Materials and Supplies:

Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

None

### 1.8. Other Direct Costs:

Provide an itemized list of all other proposed other direct costs such as contractors, equipment rental/user fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists). None

### 2. The Return on Investment (ROI) Analysis

### 2.1. ROI Analysis Related to Information Inquiries

Detroit currently does not keep record of any inquiries related to the UOCAVA only. This grant will help us to establish a tool to track the inquiries closely in real-time fashion.

### 2.2. ROI Analysis Related to Additional Registrations

We are confident that the new tool will help us to double our current UOCAVA voter registration. Currently, we do not have a tool to separate the UOCAVA voters from the others. This tool will offer us the opportunity to do so.

### 2.3. ROI Analysis Related to Absentee Ballot Applications

In 2008 General Election, we had 1,836 UOCAVA ballot applications. We plan to at least increase our application by 55%, which would be 1,000 more applications.

### 2.4. ROI Analysis Related to Ballot Transmissions

We currently do not keep track of the transmission of our ballot. There is no tool for the voters to report that they never received the mailed paper ballot. The new tool will help us to build up web based status of registration, ballot request, and city ballot delivery. If the paper ballot is not sent on-time or the online ballot was not downloadable, the new too will make it much easier to contact us. Therefore, any human failure of ballot transmissions can be eliminated.

### 2.5. ROI Analysis Related to Ballot Markings

Online marking is not available currently to our voters. This new tool will make it possible. This funding will help us to solve this bottleneck problem and should help us to increase the UOCAVA ballot quality dramatically so more returned ballots will be counted.

### 2.6. ROI Analysis Related to Ballot Returns

The ballot return failure is the most problematic issue for us. Since we do not have a system to track all the steps above, the failure rate of the ballot returning is unknown. We can assume that it is high and should be dramatically improved by our new EASE. It can be further improved if the Mobile App can solve the ballot signature and email back issues on one device, a Smartphone.

We think that we are piloting a project for our nation. The EASE with Mobile App is an innovative idea at the right time and place. Let us assume that there are 6 million overseas

US citizens qualified as UOCAVA voters. Currently, there may be less than 2% of these voters voting. The potential for a Smartphone to push their participation to 10% is achievable within a few years, which would be 500,000 more UOCAVA voters voting.

#### **Technical Proposal – Cover Sheet**

#### **Detroit EASE Mobile App**

#### 1) Catalog of Federal Domestic Assistance Number: 12.217

- 2) BAA number: HQ0034-FVAP-11-BAA-0001
- 3) Title of Proposal: Detroit EASE Mobile App
- 4) CAGE Code: (b)(4) and DUNs Number: (b)(4)

# 5) Applicant:

Department of Elections City of Detroit 2978 W. Grand Blvd Detroit, MI 48202

Subcontractor: Konnech Inc. CAGE Code: (b)(4) and DUNs Number:

> 6) Technical contact: Kelly Neuder Konnech Inc.
> 4211 Okemos, Okemos, MI 48864 (517) 381-1830 Fax: (877) 301-0793 Kelly@konnech.com

#### 7) Administrative/ business contact:

Gina C. Avery (313) 876-0221 FAX: (313) 876-0053 averyg@detroitmi.gov

#### 8) Proposed period of performance

From September 1, 2011 to November 31, 2012

# Technical Proposal

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The pages between 6 and 12 include Konnech Inc.'s proprietary information. Please contact Konnech for permission if any disclosure is requested.

### 1. Executive Summary

We, the City of Detroit, Department of Elections, want to test an Electronic Absentee System for Election (EASE) Mobile App solution from Konnech Inc. for the coming 2012 elections. Konnech is one of our current vendors providing us Poll Location Management and Poll Worker Management Solutions since 2008. In addition to being a Certified Partner of Microsoft for past 7 years, Konnech is an iPhone Development Partner of Apple and expert of Google Android application. Konnech has developed both the iPhone and Android version of Add-ons, iPAMS and iPollCall, for our warehouse and call center solution using Smartphone. As a 2010 FVAP Electronic Voting System Wizard (EVSW) winner, Konnech understands the challenges of absentee voting, which includes UOCAVA voting. They have developed the lab-testing version of a smart phone Mobile App, which they demonstrated to the FVAP in Arlington, Virginia on May 2, 2011. It has the following features, which enhance the EASE online voter access dramatically:

- Use the mobile phone screen as the signature pad so voters do not need to print and then scan to email the document.
- The Mobile App creates a secured storage space so personal data can be reused for FPCA, FWAB and ballot submission for coming election(s).

Many more unique features of the Mobile App are discussed within our proposal.

There will be 142.8 million smart phone users in the USA and 449 million globally by the end of 2011. Owners use their smart phones 4.6 hours a day on average. Most US uniformed personnel have a smart phone in their hands. The total downloads from mobile app stores will reach 17.7 billion in 2011. We believe that Konnech's Mobile App for EASE could improve UOCAVA voter access and ballot return dramatically. If used by all States, hundreds of thousands more UOCAVA ballots would be counted for each of the coming elections in 2012.

- It gets the right ballots to and from the voters quicker than any other previous method.
- Once the risks are well-assessed and well-tested, more jurisdictions will adopt it. It will open the flood gate of ballot requests from UOCAVA voters.
- The effectiveness and low cost will assist States to change laws to comply with the MOVE Act.

Security is our main concern in using the mobile device to conduct elections. Extensive and exhaustive testing and risk analysis by both internal and an expert team are needed. We ask for FVAP funding to do the following:

- Build up our city testing environment for EASE Mobile App
- Run a Mock Election with up to 1,000 overseas US citizens
- Conduct Risk Analysis
  - Server hardware and software NIST FIPS compliance test
  - Mobile User Interface (UI) security and personal data safety tests
  - To assist a third party to conduct the Risk Assessment Test

To have better control of grant funding and a security firewall between internal and external testing, we are submitting 3 grants. One is for the EASE electronic voting system. The second is this grant for the EASE Mobile App. The third is for Risk Assessment. The first and second grants will be subcontracted with Konnech Inc. The last one will be with the University of South Alabama.

#### 3. Schedule and Milestones:

### 3.1. Summary of the Schedule

We plan to start the project as soon as the contract was awarded, and to finish it within 314 working days.

Task	Duration	Start	Finish
FVAP Mobile App Project	314 days	9/1/11	11/13/12
Project Initial Planning	2.88 days	9/1/11	9/5/11
Meet Initial Requirements	16.5 days	9/5/11	9/28/11
Research, Design	17 days	9/28/11	10/21/11
Development	30 days	10/11/11	11/22/11
Field Test & Risk Assessment	34 days	11/22/11	1/9/12
Documentation	26 days	1/9/12	2/14/12
2012 Primary Election 1	64 days	1/3/12	3/6/12
2012 Primary Election 2	91 days	6/1/12	8/31/12
2012 General Election	87 days	9/4/12	12/31/12

### 3.2. The Intervals in Which Milestones Are Assessed for Progress

- a. EASE Mobile App Initial Planning 2.88 Working Days 9/1/11-- 9/5/11
   We will determine project final scope, and organize project teams with focus in 3 areas; worldwide field test, security analysis, and risk assessment. The preliminary resources will be further reviewed and secured. An FVAP Post-Award Conference will be conducted before September 5<sup>th</sup>.
- b. Team Requirements 16.5 days 9/5/11-- 9/28/11

We will have our final project management plan not later than (NLT) Sept 12, and final Worldwide Tester Recruiting Plan completed NLT August 15. A campaign plan of awareness and solicitation of testing service from the overseas mobile users, who are US citizen, is finalized, approved and executed. The target testing size is 1,000. Survey will be sent in the last stage of testing to have the testers' feedback about the usability, reliability, security and accessibility. We will also build up web space so this group of testers can still communicate with us or among themselves related to the development of mobile voting in general through a public domain.

Any good feedback will be incorporated into the software plans once reviewed and approved by the FVAP. A more detailed delivery timeline may also be developed with the FVAP.

c. Design & Redesign 9/28/11--10/21/11

Based on the feedback from the field testing and risk assessments, the preliminary software specifications and functional specifications will be further developed. The prototype based on functional specifications will be programmed. Demo to FVAP and other interested parties will be conducted before October 21, 2011.

d. Development 10/11/11--11/22/11

We will further review the functional specifications based on the feedback from the field and initial testing from the testing staffs. There will be a continuing process of identifying modular/tiered design parameters, adjusting development staff workload, further developing and testing code (primary debugging). We plan to start the programming as soon as possible with the modification of our existing tools and to finish the programming before November 22, 2011.

- e. Internal and Field Test, Risk Assessment 11/22/11 Tue 1/9/12 Internal and field tests will start as soon as the team is in place. As soon as the field test finishes, the Mobile App will be loaded to Apple Store and Google MarketPlace for public to download. Email alert will be sent to all volunteers, who are US citizen overseas, who had signed up to test our Mobile App. We will also assist the external test team from a US university to conduct the Risk Assessment Test at the same time period with the real-time data. Based on the field feedback, we will modify the program so we can have it ready for the coming Primary Election on February 28, 2012.
- f. Documentation 01/09/11-- 02/14/12 We will finalize Users and Operations Manuals before February 14, 2011.
- g. Primary Election 1 01/03/12-- 06/06/12 Michigan anticipates a Feb 28, 2012 primary for presidential race, and August 7 for the rest. We will make our mobile app available on January 14, so voters will have 45 days to access their full ballots via Mobile App.
- h. Primary Election 2 06/01/12-- 08/31/12
   We will make our mobile app available on June 1, so voters will have more than 45 days to access their Mobile App. We will try to make full ballot available on June 23 so it is 45 calendar days in advance of election
- General Election 09/04/11-- 12/31/12 The Election Day is on November 6, 2012. We will make our Mobile App available to download continuously from the Primary Election for voters' submission of FPCA and FWAB in September 1. On September 26<sup>th</sup>, full blank ballot will be online. Therefore, our UOCAVA voters will have 45calendar days to access their full ballot via Mobile App.

We will closely communicate with the FVAP and wait for an approval if there are any planned change(s) in the above schedule.

#### 4. Reports:

We will provide the following live, weekly, month and closing reports. Some of these reports will be combined with our EASE reports to give a full picture view of our projects.

#### 4.1. Live On-demand Reports and Statistics

- Number of new requests for ballots pending
- Number of requests for ballots that have so far been approved
- Number of requests for ballots that have been rejected
- Total Number of requests for ballots that have been received, approved, rejected, or pending.
- Number of voters on the UOCAVA lists
- Voter Request Events
- Voter Access Ballot Events
- Voter Download Ballot Events
- Number of entrees on the UOCAVA list

From the voluntary voter Satisfaction Survey:

- Number of Satisfaction Surveys Submitted
- Number and percentage of survey responders who reply that they are casting an absentee ballot for the first time
- Number and percentage of survey responders who reply that they found it convenient to obtain their ballots online
- Number and percentage of survey responders who reply that they would or would not like to obtain their ballots online in the future
- Number and percentage of survey responders who reply that this method of absentee voting was Very Satisfactory, OK, Somewhat Satisfactory, or Not Satisfactory

### 4.2. Weekly Report

Weekly report of Traffic Analytics related to Site Usage, Bounce Rate, Page Views, Direct Traffic, Referring Sites, Search Engines, Pages per visit, Average Time on site, New Visits, Countries (name & number and percentage of users), Average Time on Page, Exit percentage.

### 4.3. Monthly Report

Each month, the Project Managers will prepare a programmatic and financial progress report. Within two weeks after the end of the reporting period, the report will be delivered in hard copy or electronically by email. The report will be substantially in the following format:

(1) Executive Summary

(2) Project plan status and variance

(3) Budget status and variance

(4) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented

Each month, the Project Managers will also prepare a status report. The status report will be delivered in hard copy or electronically by email. The report will be substantially in the following format:

(1) Executive Summary

(2) Summary of accomplishments from the preceding period

(3) Summary of activity planned for the upcoming period

(4) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented

#### 4.4. Final Report at Completion

- Total number of ballots requested on-line
- Total Help-desk requests
- Countries accessed
- Satisfaction levels
- Voter status
- Voter types
- Ballots mailed
- Ballots faxed
- Ballots emailed
- Ballots approved
- Ballots returned

### 5. MANAGEMENT APPROACH

We, the Department of Elections, City of Detroit, have decided to work with our contractor, Konnech Inc., to develop a Smartphone solution for our UOCAVA voters. Since it is so new and so critical, we want to ensure that the wireless component will not add risk into our voting process. Therefore, more research, study or assessment of risk involved is the focus of this grant application, and we will not seek other jurisdictions as partners until the Risk Assessment is finished. Since it is involved with many cutting edge technologies, and large issues beyond the city's resources, an expertise group will be founded to conduct the in-depth risk analysis about this mobile add-on to our Electronic Absentee System for Elections (EASE). In order to build up a firewall between the contractor and Risk Assessment Team, we will submit a separate grant for the Risk Assessment Team. Therefore, there will be 3 separate grants submitted by us; an application for the Konnech EASE program, another for the EASE Mobile Add-On, and another for Risk Assessment. This grant will depend on our grant funding for the EASE application. If our application for the EASE program should not be granted, this proposed Mobile Voting App project would not be started.

### 5.1. Definition and Formalization of Our Strategic Goals

As the largest city in Michigan, our strategic goal is to use the Mobile App to change the image of Detroit's UOCAVA voter service. The existing image with our UOCAVA voters is that the delays in ballot delivery and return cause most UOCAVA ballots to go uncounted. Many of our UOCAVA voters are not trying to register and to apply for ballot due to the poor image of Michigan and Detroit with late ballot delivery and with many uncounted ballots due to the missing of the deadline.

Using the technologies of EASE Mobile App, we aim to increase our registration and ballot requests (FPCAs) as well as our Federal Write-in Ballots by100%. These goals are targeted for the 2012 General Election. We also aim to reduce both our ballot delivery and return failure rates 50% if the Michigan State law allows for online blank ballot delivery or even marked ballot return by voters' personal email accounts later on.

We design our goal with these facts in mind. The first is the high percentage of our UOCAVA voters with the iPhone or Android phone. The initial stage funding from FVAP will help us to make the Mobile App secure and reliable with one year testing period. In the second stage, we will use it in the 2012 elections, and also present our testing results and findings to the national conference so all jurisdictions can benefit. Once all jurisdictions see the results or facts from Detroit, more jurisdictions will use the Mobile App. Once there are a group of Mobile App jurisdictions and UOCAVA users, there will be an unstoppable trend to improve UOCAVA voting by using Mobile App.

#### 5.2. Analysis and Measurement of Current Processes;

#### 5.2.1. Detroit's Change from Low Tech to High Tech

The poor image is due to many factors and years of lack of participation from UOCAVA voters. We have to overcome the image issues one by one within the boundary of state laws and regulations. The new technologies have been presented by an innovative local company with a long term affordable price. We want to join the trend of cutting cost while improving our service by using advanced technologies. The end measurement of this image change will be increased participation and overall improvement of UOCAVA voters and election staff satisfaction.

### 5.2.2. Provide Easier Way to Request Full Ballot

It is our intention to provide additional ballot-request avenues for our UOCAVA voters. In addition to current mail or fax, our Mobile App will enable our voters to submit the FPCA online or even using their Mobile App. The measurable improvement will be many minutes saved by our UOCAVA voters and our staff processing time for each ballot. We project over 100% of time saving minimum for our voters and 30% time saving for our staffs. Our voters can submit both their FPCA and FWAB within 15 minutes. Our staff will receive a crystal clear image of the FPCA and FWAB every time. Now, many mailed and faxed images are hard to read. For some emailed images, some of them are hard to open due to the incompatible imaging format.

### 5.2.3. Track Voters' Paper Ballot Request/Delivery

Our UOCAVA voters can log in to their Mobile App to check the status of their ballot request and the shipping status of their full paper ballot. This could not be done before. Therefore, it is total brand new services.

### 5.2.4. Provide Better Way to Deliver Blank Ballot

Michigan allows only our UOCAVA voters to receive ballots online. The qualified voters will log onto their Mobile App to mark their full ballot, sign, print and mail their marked ballot back. It is never been done before. Therefore, the EASE and EASE Mobile App make it total brand new services.

### 5.2.5. Test the Technologies of Mobile Voting

Michigan currently does not allow the marked ballot returned by the email. However, it is important to have these capacities tested in terms of security and reliability. Without a pilot test with monitored mock election and Risk Assessment from an expert team, there will not be compelling evidence for us to back up our request for changes. Our strategic goals are to find the industry expert in EASE and Mobile App business with an approved track record with the city, and experience in the election industry. Konnech, one of our current vendors, provided the EASE service to 3 states in 2010, and election logistic management for Detroit for the past 3 years with iPhone/iPad and Android applications, like iPAMS and iPollCall, as add-ons for the PollChief Election Management Tool Suite.

Currently, most States allow blank ballot online delivery. Many States allow the marked ballot returned by the voters' personal email address. Therefore, our final measurements for this project are these pilot project results and reports, which are critical for most states in US.

### 5.3. Identification of Each Process and the Related Elements

#### 5.3.1. Easy Ballot Request or FPCA & FWAB Submission

Most of the entered information is the same in both FPCA and FWAB. Voters are required to submit their FPCA each year to be qualified as the UOCAVA voters. FWAB can be also submitted for the coming election with their federal and state write-in candidates. Michigan's new election law allows the voters to submit their name, resident address and signature online to apply their absentee ballot. The Mobile App with the signature pad feature makes it perfect for Michigan residences. It is lower fruit hanging on the tree, which is easy to achieve.

### 5.3.2. Mobile Ballot Request & Mail Tracking

The processing transparency will enhance the voters' participation. In addition to EASE online version, the voters can also check the following information:

- My Ballot Application Status
- My Paper Ballot Delivery Status
- My Polling Location
- My Help Contacts

### 5.3.3. Mobile Voting

There are three main components of mobile voting, which are blank ballot delivery, marked ballot return, and marked result tabulation.

Since there are a lot of working procedures and security issues involved within a limited time, we will focus on the blank ballot delivery and marked ballot return first. The tabulation portion of the test will depend on the availability of time for this project in the middle of 2012.

### 5.4. Identification of Potential Risks and Mitigating Strategies;

Mobile App presents its unique set of risks, which should be analyzed extensively with the assistance of this grant. It is a main purpose of this grant to do more studies by us and by a third party who has extensive testing experience specialized in election systems.

# 5.4.1. Mobile FPCA & FWAB Submission

# 5.4.1.1. Application Software Hack Prevention

Hackers could try to attack the Mobile App server to insert coding for voters information mining, contact information changing, and candidate name fixing within the FWAB write-in form and virus injection. A successful attack would cause major damage to our election.

The attack to Mobile App should happen differently than to EASE. The EASE web interfaces are dynamically presented through web browser in addition to the user data between the server database and web browser. The Mobile App is marking compiling into file format like PDF, and is emailed out ballot purely at the handset. Since there is no a centralized server to attack in the Election Days, and it is almost impossible for hacker to attack each individual phone set during the Election Days, the effective attack must happen before the Election Days at the Mobile App.

We can prevent these attacks with the version control before its formal release and its verification after release. One sample of after release verification is to create a secured mother copy at a separated and more secured server. Constantly comparing of the copy of Mobil App at the web server with its mother is one of ways to alert the authorities that there is an attack happened.

### 5.4.1.2. Cloned Mobile App Prevention

The attacker can have the voters to download their Mobile App from the cloned site with a modified application. Just like SSL secured web site verification and certification, our vendor has presented a Brand Name certification system with a brand verification server to secure the Mobile App just from our vendor.

### 5.4.1.3. Data Breach Prevention

Beside the application software hack prevention, SSL is used to protect data while it is in transmission. In addition, the encryption of data in transmission and in the servers is also important. The encryption has to be in compliance with NIST FIPS certification.

### 5.4.2. Attack the Tracking Interfaces of Voter Status

Since it is only a status report interfaces, it is less a valuable target for hacker to attack. Comparing with EASE online tracking, Mobile App interfaces are installed at local phone set. The exchange between server and user is mainly the tracked data. Therefore, it is less to be attacked with. However, pay attention the holes of the application layer design, use SSL with more than 128 bit security key, and FIPS compliant encryption are needed in place to prevent any data leaking.

### 5.4.3. The Risks of Mobile Voting and Their Prevention

## 5.4.3.1. Protect Voter Privacy Issue

Just like EASE, we will provide a key to the voter's jurisdiction, which can access the voters' total voting result. There are only one key with the system ballot master, which is able to see the association of a voter with his or her ballot markings or the candidate selection. There is only one back-end system to manage both the data flow from online EASE or Mobile App. Therefore, the risks are exact the same as the EASE for the voter privacy protection issue.

# 5.4.3.2. Prevent Breached Ballot Delivery and Return

Just like EASE, the ballot database at server, the ballot information in transmission, and the ballot information presented at the user-end have to be protected. For Mobile App, the verification or certification is possible at the user or voter handset since there is prior installed software. Therefore, it may be able to provide additional security.

# 5.4.3.3. Prevent Breached Tabulation

The portions of tabulation source code and marked ballot return have to be tested, and certified before the real in use for election. Our proposed plan is to do some initial field testing and risk analysis if the time and budget allow in the middle of 2012. This proposal will focus on the communications with voters, ballot request, ballot delivery, and return assistance.

### 5.4.4. Risk Factors of Mobile App vs EASE Online

Voters can vote either using EASE online wizard, or Mobile App. There are most of similar risk factors like encryption on the servers and in transmission. There are few different risk factors.

### 5.4.4.1. Use of Different Data Networks

It is our assumption that the cellular networks used may be harder to hack than wireless network. A cellular network is just like a company (AT&, Spirit, or Verizon) internal network with millions users. Their hardware and software is integrated with their network. Breach will happen for any network. It is only our assumption that one company is to take in charge and to fix the problem quicker than the computer network, which involves usually many different routers and switches, which are made and owned by many different operating companies.

### 5.4.4.2. Mobile Application Is Harder to Attack

Since there is no centralized database to attack after its release, it is harder to be attacked. For example, EASE provides on-screen marking capacity. Although it is not an online election system, the EASE server still has to remember the ballot markings so it can produce the PDF file in the end with the marking result. Even if it is only stored temporally on the server and is immediately cleared out after user finishes the ballot submission, a strong protection of server from the hack is necessary.

For Mobile App users, they can fully use the phone set's resources once the permission to install the Mobile App was granted. The Mobile App can remember the ballot-markings, generate all PDF forms with personal information and signature also inserted locally and securely without the data exchange with the centralized servers. Therefore, there is one less critical element in the server to be attacked at.

However, further study will be needed to confirm this assumption, to discover any missing risk factor(s).

### 5.5. Formalization of Performance Indicators

### 5.5.1. Ballot Application Increase Rate

We have General Election in past 3 years with the following UOCAVA requests.

	2010	2009	2008
Military	84	7	1,250
Overseas Civilian	<u>38</u>	<u>3</u>	<u>586</u>
Total	122	10	1,836

Our goal is to increase the UOCAVA voter ballot application to 100%, which means that there will be 1,836 more potential voters for the 2012 General Elections.

### 5.5.2. Marked Ballot Return Rate

We have the history data of total absentee ballot mailed and returned by deadline for our general population.

	2010	2009	2008
Total Absentee Ballot Issued	49,117	46,544	81,396
Ballot Returned by Deadline	<u>44,739</u>	<u>41,829</u>	<u>78,563</u>
Return Ratio	91.1%	89.9%	96.5%

We currently do not collect the information just for UPCAVA voters for their returned ballot. The grant funding will allow us to collect the UOCAVA return data and to improve our tracking and service of our UOCAVA voters.

### 5.6. Justification for the Modification

Detroit is an American bench-mark city with the hope of recovery in its local economic. With the grant supported improvement in election technologies, our department should be able to show our UOCAVA voters that we listen to their concerns and needs. We should be able to provide as good as service as our colleague in the country. This Mobile App presents us one of these opportunities. If Detroit can do it, you can do it.

### 5.7. Projections of the Effectiveness of Modifications

### 5.7.1. UOCAVA Voters' Satisfaction

We will design, deliver and collect a satisfaction survey for our Mobile App users, and want to improve our UOCAVA voters' satisfaction over years.

### 5.7.2. Election Staffs' Performance Improvement

Due to the city budget issue, we could not increase our staffs to deal with more absentee voters in general. Therefore, the technologies are our solution to improve staffs' productivity while maintaining their job satisfaction level.

### 5.7.3. Real Time UOCAVA Management and Better Reporting

In the past, we could not separate the UOCAVA ballot return, delivery failure rate from the general population. By this project, we should be able to collect the data in real-time based. More detail reports can be generated in few clicks of a mouse button.

### 5.8. Measurements of Performance

The measurements of our performance can be the higher voter registration and ballot request. We anticipate the Mobile App should increase our ballot request in 2012 General Election to 100% over 2008 General Election level, which will be at least 1,836 UOCAVA more voters.

We will tune up the state configuration for all States in US. Therefore, any voter can download from Apple Store and Google MarketPlace to use our Mobile App to apply for their ballot through FPCA and FWAB.

#### 6. Current and Pending Project Proposal Submissions:

(Not included in page limitations)

#### 6.1. Related or Complementary Proposal Submission 1

#### 6.1.1. Title of Proposal and Summary;

**Title:** Detroit Electronic Absentee System for Elections (EASE) **Summary:** 

This is an application for fund to build an Electronic Absentee System for Elections (EASE) for the City of Detroit UOCAVA voters, based on the electronic voting support wizard (EVSW) pioneered by FVAP in 2010.

The contractor will be Konnech, Inc. This company successfully provides Detroit with their PollChief's poll worker and poll location management modules for the past 3 years, and last year had successfully provided the EVSW for New Jersey, Montana and Nevada. We have confidence in Konnech as a technology partner.

Michigan may have more ballot delivery and return challenges for our UOCAVA voters than other States. Many of our overseas voters are giving up trying to apply for their ballot since most of their past effort failed due to their impression with the election service of Michigan. Now, Michigan has moved the Election Day tentatively from August to February 28, 2012. The earlier election will bring additional challenges to our department. Additional communications with our UOCAVA voters are urgently needed.

The EASE will help us to generate additional interest from our UOCAVA voters. Our qualified voters can use EASE to confirm their registration, apply for their ballots using FPCA and submit their write-in ballot using FWAB, which can be downloaded from EASE. They will also be able to check their application and full ballot delivery status using EASE. By using EASE, Detroit will be able to deliver the blank ballot online which will be a first in Michigan elections. We anticipate that our applications from UOCAVA voters for 2012 will increase 50% or more than 2008 elections, which can be near 1,000 more UOCAVA voters for the City of Detroit alone.

Currently, we are using a Microsoft Excel spreadsheet to keep track of UOCAVA voters. There is no system to communicate with our thousands of UOCAVA voters effectively. Our UOCAVA voters cannot check if their application was received, their paper ballot was sent, or if their marked ballot was successfully recorded. The new EASE will dramatically improve our internal operation, and our voter service for our UOCAVA voters.

Since Michigan requests our UOCAVA voters to have their signatures on all of their submissions, the voters still have to print the web downloaded forms, signed them, scan them, and mail or email them back. For most of our UOCAVA voters, this is one of the major challenges. Detroit plans to use the EASE add-on of Konnech's Mobile

App to overcome this problem. Our proposed Mobile App will allow voters who have a Smartphone like an iPhone or Android powered phone, to mark, sign, and return the ballot on their Smartphone instead of using EASE voter interfaces through their computers. Our city staff will use the same EASE login to manage these Smartphone users as well as the online users. Since the Mobile App is an addition to our EASE application, we separated our Mobile App into a separate grant application. If there is not enough funding from FVAP, we at least hope that we will be funded for our EASE project.

• source and amount of funding (annual direct costs; provide contract and/or grant numbers for current contracts/grants); Another grant proposal submitted to FVAP (BAA number: HQ0034-FVAP-11-BAA-0001) (pending)

• percentage effort devoted to each project; 100%

• identity of prime applicant and complete list of subcontractors, if applicable; Primary Applicant: *City of Detroit* Subcontractor: *Konnech Inc.* 

 technical contact (name, address, phone/fax, and email address); *Kelly Neuder 4211 Okemos Road, Suite 3 & 4 Okemos, MI 48864 517.381.1830 Fax: 877.301.0793 Kelly(a)konnech.com*

• period of performance; From September 1 to November 31, 2011

• proposed project and all other projects or activities requiring a portion of time of the senior personnel must be included, even if they receive no salary from the project(s);

5% Kimberly Wallace

• award period and amount including indirect costs as well as the number of person-months or labor hours that are to be devoted to the project(s), regardless of support; and

Award Period: September 1 to November 31, 2011 Grant Proposed Amount: \$276,775

• how projects are related to the proposed effort and indicate the degree of overlap. This grant is to build up the EASE system, which will be accessed by both the city administrators and voters. Another related grant is to build up the Mobile App so the Smartphone users can access the voter's interfaces in addition to the online web interfaces. There is no overlap for the city administrator database and control console since these portions of the EASE will be purely supported by this grant. The Mobile App will build overlap voter access so the voter has both options to access their voting system, online through web or on their Smartphone through cellular network.

### 6.2. Related or Complementary Proposal Submission 2 (pending)

• Title of Proposal and Summary;

*Title:* Electronic Absentee Voting Risk Assessment: Comparing Mail-in to Online Plus Mobile Device Balloting

#### Summary:

Electronic alternatives, including online voting and voting with mobile devices, are now available that promise to make absentee voting more efficient and effective. Electronic voting alternatives are particularly attractive for overseas citizens and military personnel that have no other choice than by mail. Electronic voting system components, including support for online voting and voting with mobile add-ons, are currently under consideration for use in Detroit, Michigan. These electronic alternatives offer potential to enfranchise Military and Overseas voters in Detroit and across the United States. With any change, however, comes risk.

Electronic absentee system components, while clearly advantageous in terms of the ability to deliver the vote in a more timely way, and with fewer ballots lost or arriving late, nevertheless introduces new threats. Electronic voting systems are subject to cyber attacks, malware intrusions, technical failures, and user error. Some electronic voting alternatives, particularly precinct-based optical scanners and direct record electronic machines, have been used for a number of years, and the risks are well understood. Other technology alternatives, such as web-based online voting, and voting with mobile devices, are much newer and pose a variety of risks. An understanding of these risks is a necessary and important part of the process of new technology evaluation. In this project, we propose to apply novel risk management methods to perform a comparative risk assessment of absentee voting alternatives for the City of Detroit using a risk assessment process created for the United States Election Assistance Commission (EAC). Our approach relies on the skills of independent experts and a spreadsheet-based simulation tool to compare electron operations risks for the current absentee vote-bymail system against the electronic options under consideration.

- source and amount of funding (annual direct costs; provide contract and/or grant numbers for current contracts/grants); Another grant proposal submitted to FVAP (BAA number: HQ0034-FVAP-11-BAA-0001) (pending)
- percentage effort devoted to each project; 100%
- identity of prime applicant and complete list of subcontractors, if applicable; *Primary Applicant: City of Detroit Subcontractor: University of South Alabama*
- technical contact (name, address, phone/fax, and email address);

Dr. Jeff Landry University of South Alabama 307 University Blvd, North Mobile, Alabama 36688 jlandry@usouthal.edu 251.461.1596

- period of performance; September 1, 2011 through September 30, 2012
- proposed project and all other projects or activities requiring a portion of time of the senior personnel must be included, even if they receive no salary from the project(s);
   5% Kimberly Wallace
- award period and amount including indirect costs as well as the number of person-months or labor hours that are to be devoted to the project(s), regardless of support; and

Award Period: September 1, 2011 through September 30, 2012

#### Grant Proposed Amount: \$119,070.00

 how projects are related to the proposed effort and indicate the degree of overlap. Risks of wireless voting system are not well-known in the election industry. This pilot project will be a good learning process for the industry as whole. It is to protect the health growth of the wireless voting technology to secure the voting process and to speed up the process of digital voting, which will overcome these key bottleneck issues like ballot delivery and return securely and reliably.

This project is based on our other grant application. One is to build up the hardware and software testing environment. Another is to design our Mobile App and to have a field test. Based on the testing setting and data generated by the field test, we should be able to conduct the Risk Assessment, which is for this grant application.

# 7. Qualifications

Qualifications of Our Key Personnel for This Project

Kimberly Wallace, City Project Manager, obtained both Master of Science (Computer Information System) and Bachelor of Science (Computer Information System) degrees from University of Detroit Mercy, Detroit, Michigan in 1999 and in 1996. Since then, she is certified with the followings:

- Microsoft Office User Specialist: 2003, XP, 2000, 97
- Microsoft Certified Technology Specialist SQL Server
- Microsoft Certified Professional
- CompTIA Network+ Certified Professional
- CompTIA A+ Certified Service Professional
- International Business Administration
- UNIX O/S & C Programming
- EDUCATION AND TRAINING

Currently, she is the Computer Systems Support Manager for the Department of Elections, City of Detroit. She supervise, plan and direct the various activities of data processing, network and telecommunications, which include all computer operations, programming and systems development. Coordinate the various data processing and communication needs in the most efficient and timely manner. Work is of a complex technical nature, involving a great deal of creativity, perception and initiative as well as a high level of independent judgment. She is a computer Professional with over thirteen years experience providing technical training and assistance to business professionals and students, demonstrated ability to integrate computer skills, customer support experience, project management and related education to exceed technical, business, and customer requirements, and is skilled at troubleshooting and fixing problems while, minimizing customer stress levels.

Eugene Yu, our project manager, obtained his MBA degree in 1988 from the Babcock Graduate School of Management of Wake Forest University, and his BS degree from Zhejiang University, P.R. China in 1982, one of the best engineering schools in China. He was a member of BICSI with extensive experience in server room design, installation and web hosting service as a Microsoft Hosting Service Partners' technical contact for Konnech. He completed the IT project management course at Lansing Community College in 2008. He has led the team to finish several large online web application suites for the election industry and in school districts, including the EASE project with FVAP for 3 States in 2010. From his 20 years experience in technology and management, he is well-qualified to lead his team to successfully accomplish this FVAP Data Migration Tool mission.

Anne Wang is our Technical Manager with a Master Degree in Information Science from the University of South Florida, Tampa, FL and Associate Degree of Computer Support from Lansing Community College, Lansing, Michigan. She is certified with Microsoft Application Software Training, CompTIA A+ Certificate Training. Since 2005, she has organized her programmer team to finish a number of large projects in the election and educational industries for Konnech.

Heather Zeng, Documentation Manager, has a Master Degree of Computer Science from the HuaZhong University of Science and Technology, Wuhan, P.R. China, and taken the C# and SQL programming courses in Lansing Community College in 2005. She develops training material, prepares user manuals, and upgrades test manuals for ABVote state and county users and PollChief<sup>®</sup> city and county users.

Kelly Neuder, Support Manager, has her Bachelor of Arts in Communication from Michigan State University. Since 2008, she has been working at Konnech providing customer service and support to the Department of Elections, City of Detroit and Leon County, Florida starting in 2009, and the ES&S project in 2010. She has managed project planning, overseen website production, ensured quality control, conducted alpha testing, managed beta testing, operated three database systems, interfaced between users and product engineers, created page designs using Hypersnap 6 and Visio, trained users, provided help desk support, demonstrated help desk, written instruction documents. She will lead the FVAP project if we are awarded this contract.

Laura Potter, Business Development Manager/Account Manager, has extensive customer service experience. She researches and analyzes election industry activities, coordinates election demonstration projects and oversees marketing. She successfully completed our PollChief project with Leon County, Florida in 2009, and our last project with the FVAP by coordinating all activities with the FVAP, BTA, states, counties, and voting equipment vendors smoothly in addition to the activities with ES&S and jurisdictions in 2010. She has the expertise in communications needed to have our project well-planned and coordinated with outside parties.

#### **Resume - Kimberly Wallace**

(b)(6)

#### SUMMARY

Computer Professional with over thirteen years experience providing technical training and assistance to business professionals and students. Demonstrated ability to integrate computer skills, customer support experience, project management and related education to exceed technical, business, and customer requirements. Skilled at troubleshooting and fixing problems while, minimizing customer stress levels. Professionally certified by CompTIA and Microsoft.

#### SKILLS

$\Box$	Technical Training	Help Desk	Project
		Operations	Management
	Desktop Systems	Customer Service	Preventative Maintenance
	System Tuning	Analysis	Component Repair
	Microsoft	Microsoft Office	Microsoft
	Windows		Networking

#### EXPERIENCE

CITY OF DETROIT/DEPT OF ELECTIONS, Detroit, MI 2007 - Present

#### Computer Systems Support - Manager

Supervise, plan and direct the various activities of data processing, network and telecommunications, which include all computer/PBX operations, programming and systems development. Coordinate the various data processing and communication needs in the most efficient and timely manner. Work is of a complex technical nature, involving a great deal of creativity, perception and initiative as well as a high level of independent judgment.

- Program Local Municipal Elections
- Perform Diagnostic on various election equipment
- Update and maintain the Dept of Election website
- Participate in the selection of new colleagues.
- Train, develop and evaluate colleagues.
- Develop overall strategy related to the design, implementation, operation, and security of computers, networks and telecommunication systems.
- Direct colleagues in the planning of work schedules and maintenance of operations.
- Establish and maintain work standards, methods and procedures.
- Assist in the selection of hardware and software for information, network and communication systems.
- Report to management on progress of developments.
- Direct establishment of user training in relation to computer/communication systems.
- Ensure implementation of and adherence to local security procedures.
- Regular contact with others outside the work group to coordinate computer, network, and communication system needs.

### WAYNE COUNTY COMMUNITY COLLGE DISTRICT, Detroit, MI 2007 - Present

### **Distance Learning Instructor**

Developed and delivered online training to prepare students for a degree/career in Computer Information Systems via Blackboard. Rendered instructions on a diverse range of Information Technology subject matters including:

- Internet Business
- Site Development
- Network Technology

### Part-time Instructor

Lecture students to cultivate skills to create, present, and collaborate on professional presentations by using Microsoft PowerPoint software, as a visual communication tool, to create remarkable presentations with enhanced multimedia capabilities.

#### LEAD P.C. Technician Instructor

Managed instructors, teacher assistants and students enrolled in P.C. Technology courses. Assisted system administrator with hardware and software problems, provided troubleshooting, and owned desktop and network issues to resolution. Perform maintenance of computer lab PC's and peripheral equipment. Identify problems and provide appropriate solutions. Install operating systems and applications and facilitated new hire classes, technical training demonstrations as well as corporate training.

- Built, maintained, and repaired computer systems to improve speed, reliability, and efficiency of operation.
- Prototyped system upgrades to identify potential problems and learned to operate and troubleshoot new systems.
- Analyzed frequent problems or potential conflicts and consulted with Training Staff and System Administrator to design and implement a solution in order to address the concerns.
- Demonstrated high quality, results-driven, prompt, and professional technical service and support to instill confidence in technical advice and directions.
- □ Reduced stress levels of management by adopting a cooperative attitude and positive approach to every task and assignment.
- Manage projects for fundraising efforts and student exposure for possible internship opportunities
- Organize Monthly Mentor group between students and Ford Motor Company professional
- Earned recognition from CompTIA for leading an entire class to 100% CompTIA A+ Certified.

#### PARSER I.T. PROVIDER, Warren, MI

2000 - 2001

#### Technical Consultant (Lead Deployment Specialist)

Lead a diverse group in the deployment of a new Desktop launch for St. John Hospital and its subsidiaries. Required the evaluation of current hardware and upgrade, retire or acquire new hardware to meet clients and system specifications.

- Loaded the 2000 core desktop image for several end-users
- Performed BIOS flash after hardware installations
- Executed quality testing

• Confirm user log-ins, drive mappings and accessibility of resource

AIRTOUCH WIRELESS COMMUNICATIONS, Southfield, MI	1998 - 1999
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#### Network Analysis

Maintain the integrity of the cellular network for the Great lake region and Northern Ohio. Used several different applications and ran customized scripts to manipulate the imported data from several switches throughout the network.

- Analyzed the data from multiple switches to determine the performance of the cellular network
- Created queries to evaluate data imported from switches for possible problems.
- Liaised between customer operations and engineering group to disseminate technical information and customer concerns
- Facilitated technical/informative meetings for departmental and regional managers
- Trained marketing team and sales reps on the usage of new handset equipment

#### Technical Knowledge

**Operating Systems:** Windows2003, Windows XP Pro, Windows2000, NT Server, Windows 95&98, Novell 5.1, Novell ZEN, MS DOS 6.X, UNIX SCO.

<u>Computer Languages:</u> Visual C++, HTML, Perl, Pascal, COBOL, FORTRAN, and UNIX Shell Scripts.

<u>Utilities/Application:</u> Virtual Machine, Norton Ghost, Norton Anti-Virus, MS Office, Fox Pro, NetG, Corel Suite, Rbase 4.0, Exchange 5.5, Lotus Notes, Outlook.

Hardware Installations: Hard Drives, CD-ROMs, Network Cards, RAM, Floppy drives, SCSI controllers, Sound Cards, Printers, and Modems, USB devices.

### EDUCATION AND TRAINING

University of Detroit Mercy, Detroit, Michigan

Master of Science (Computer Information System), 1999

University of Detroit Mercy, Detroit, Michigan Bachelor of Science (Computer Information System), 1996

Wayne County Community College, Detroit, Michigan Associate of Applied Science (Computer Information System), 1994

### CERTIFICATIONS

Microsoft Office User Specialist: 2003, XP, 2000, 97 Microsoft Certified Technology Specialist Microsoft Certified Professional CompTIA Network+ Certified Professional CompTIA A+ Certified Service Professional International Business Administration UNIX O/S & C Programming

#### Volume 2 - Budget Proposal Detroit EASE Mobile App Project

#### 1) Catalog of Federal Domestic Assistance Number: 12.217

- 2) BAA number: HQ0034-FVAP-11-BAA-0001
- 3) Title of Proposal: Detroit EASE Mobile App
- 4) CAGE Code: (b)(4) and DUNs Number (b)(4)

5) Applicant: City of Detroit, Department of Elections and Department of Elections, City of Detroit 2978 W. Grand Blvd Detroit, MI 48202

 Subcontractor: Konnech Inc.

 CAGE Code:
 (b)(4)

 and DUNs Number:
 (b)(4)

 6) Technical contact: Kelly Neuder Konnech Inc.
 4211 Okemos, Okemos, MI 48864 (517) 381-1830 Fax: (877) 301-0793 Kelly@konnech.com

7) Administrative/ business contact: Gina C. Avery (313) 876-0221 FAX: (313) 876-0053 averyg@detroitmi.gov

**8) Proposed period of performance** From September 1, 2011 to November 31, 2012

## II. Budget Proposal

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#### 1. Itemized Budget:

The itemized budget will contain a detailed list of the following:

#### 1.1. Direct Labor:

None

### 1.2. Administrative and clerical labor:

Labor Categories	<u>Hours</u>	FBL Rate
City Project Manager	267 hrs	\$217.00

**1.3. Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):** None

### 1.4. Travel:

None

#### 1.5. Subcontracts/sub awards:

Subcontract detail is attached below.

### 1.5.1. Contractor Direct Labor:

Contracted Labor Categories	<u>Rate</u>	Hours
Co-Project Manager	\$195	103
Technical Manager	\$175	136
Documentation Manager	\$150	208
Developer 1	\$150	208
Developer 2	\$150	320
Tester 1	\$125	272
Tester 2	\$125	232
Project Coordinator	\$75	416

# 1.5.2. Contractor Administrative and clerical labor:

None

## 1.5.3. Contractor Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):

Labor Categories	TOTAL WAGES	FICA (7.65%)	MESC (2.4%)	WORKERS' COMP (1%)	TOTAL
City Project Manager	52,065	3,983	1,250	521	\$57,818
Co-Project Manager	20,085	1,537	482	201	\$22,304
Technical Manager	23,800	1,821	571	238	\$26,430
Documentation Manager	31,200	2,387	749	312	\$34,648
Developer 1	31,200	2,387	749	312	\$34,648
Developer 2	48,000	3,672	1,152	480	\$53,304
Tester 1	34,000	2,601	816	340	\$37,757
Tester	34,000	2,601	810	340	\$37,73

Tester 2	29,000	2,219	696	290	\$32,205
Project Coordinator	31,200	2,387	749	312	\$34,648
Total Program					
Expenditures	\$300,550	\$22,992	\$7,213	\$3,006	\$333,761

#### 1.5.4. Contractor Travel:

<u>Item Name</u>	Detail	<u>Total</u>
Staffs Mileage	100 mi x .51/mile x 15 mo	\$765
Webinar & Conference	57 mo x 15	\$855
Air fare & Taxi	900 (1 trips and 2 staffs )	\$1,800
Meals & Lodging (2 staff)	\$182/day x 2 nights x 2 staffs	\$728
Meals on travel days	53.25/day x 4 days	<u>\$213</u>
-		\$4,361

Webinar and online conference calls are the main tools to reduce the travel cost. However, we have to plan trips to our leased telecomm data center in Lansing Michigan by car, and 1 trip for 2 people to Arlington Virginia for reporting and a physical demonstration of our final product and service before the closing of this grant. The Mobile App is a product which is difficult to demo over the phone or using a webinar.

#### 1.5.5. Contractor Subcontracts/sub awards:

None

## 1.5.6. Contractor Consultants:

Unless separately identified in the prime contractor's proposal, provide a breakdown of the consultant's hours, the hourly rate proposed, and any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work. None

#### 1.5.7. Contractor Materials and Supplies:

Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

Item Name	Detail	<u>Total</u>
Envelopes, Pens, Paper, Folders, etc.	250/month x 15 months	\$3,750
Postage	150/month x 15 months	<u>\$2,250</u>
		\$6,000

We anticipate that some of the payments for our 1,000 overseas testers will be paid by check. Some of the checks have to be sent to overseas addresses.

## 1.5.8. Contractor Other Direct Costs:

Provide an itemized list of all other proposed other direct costs such as contractors, equipment rental/user fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

The key part of this grant proposal is to test the security and reliability of the Mobile App. When we demonstrated to FVAP in May 2, 2011, we were suggested to organize some field-test by the overseas' US citizens. Working with the University of South Alabama and Michigan universities, we should be able to recruit US college student to do the testing while they are overseas in addition to other overseas US citizens. In addition, we will post our recruiting news at the FVAP, OVF and some reputable social media sites to recruit additional testers. Since it is a Mobile App, we will also post our testing application at the Apple Store and Google MarketPlace. By doing that, the total cost of recruiting these qualified testers will be substantially lower.

In order to encourage our testers to do an extensive test on the Mobile App and to provide us with useful feedback, we still budget \$25 per tester with \$6.25 per tester as our overhead. The testing sample size is 1,000 so the data should provide enough coverage for most countries related to local issues like mobile network reliability, service quality, smart phone set brand, language support, remote FPCA and FWAB submission speed, and much more.

Item Name	<u>Detail</u>	<u>Total</u>
Telecomm Data Center Space Rent	\$2000/mo x 15% x 15 months	\$4,500
Facilities utilities	\$500 mo x 15% x 15	\$900
Facilities insurance	\$100 mo x 15% x 15	\$180
Facilities Cable & Internet	\$150 mo * 15% x 15	\$270
Verizon Wireless	3 Units x 35/mo x 15 mo x 80%	\$1,008
Other Staff Development	60*3	\$180
Total In-Kind for Whole Project	2% of Total Project Cost	\$7,766
Payment of 1,000 Overseas Testers	1,000 x \$25 x 1.25	<u>\$31,250</u>
		\$46,643

## 1.6. Consultants:

Unless separately identified in the prime contractor's proposal, provide a breakdown of the consultant's hours, the hourly rate proposed, and any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant rate/cost, and a copy of the consultant's proposed statement of work.

None

## 1.7. Materials and Supplies:

Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists).

None

## **1.8. Other Direct Costs:**

Provide an itemized list of all other proposed other direct costs such as contractors, equipment rental/user fees, report and publication costs, and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists). None

## 2. The Return on Investment (ROI) Analysis

## 2.1. ROI Analysis Related to Information Inquiries

Detroit currently does not keep record of any inquiries related to the UOCAVA only. This grant will help us to establish a tool to track the inquiries closely in real-time fashion.

## 2.2. ROI Analysis Related to Additional Registrations

We are confident that the new tool will help us to double our current UOCAVA voter registration. Currently, we do not have a tool to separate the UOCAVA voters from the others. This tool will offer us the opportunity to do so.

## 2.3. ROI Analysis Related to Absentee Ballot Applications

In 2008 General Election, we had 1,836 UOCAVA ballot applications. We plan to at least increase our application by 100%, which would be 1,836 more applications.

## 2.4. ROI Analysis Related to Ballot Transmissions

We currently do not keep track of the transmission of our ballot. There is no tool for the voters to report that they never received the mailed paper ballot. The new tool will help us to build up web based status of registration, ballot request, and city ballot delivery. If the paper ballot is not sent on-time or the online ballot was not downloadable, the new too will make it much easier to contact us. Therefore, any human failure of ballot transmissions can be eliminated.

## 2.5. ROI Analysis Related to Ballot Markings

Online marking is not available currently to our voters. This new tool will make it possible. This funding will help us to solve this bottleneck problem and should help us to increase the UOCAVA ballot quality dramatically so more returned ballots will be counted.

## 2.6. ROI Analysis Related to Ballot Returns

The ballot return failure is the most problematic issue for us. Since we do not have a system to track all the steps above, the failure rate of the ballot returning is unknown. We can assume that it is high and should be dramatically improved by our new EASE. It can be further improved if the Mobile App can solve the ballot signature and email back issues on one device, a Smartphone.

We think that we are piloting a project for our nation. The EASE with Mobile App is an innovative idea at the right time and place. Let us assume that there are 6 million overseas US citizens qualified as UOCAVA voters. Currently, there may be less than 2% of these voters voting. The potential for a Smartphone to push their participation to 10% is achievable within a few years, which would be 500,000 more voters voting.

#### Technical Proposal

Electronic Absentee Voting Risk Assessment: Comparing Mail-in to Online Plus Mobile Device Balloting

City of Detroit, Michigan

- 1 CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 12.217
- 2 BAA NUMBER: HQ0034-FVAP-11-BAA-0001
- 3 TITLE OF PROPOSAL: ELECTRONIC ABSENTEE VOTING RISK ASSESSMENT
- 4 CAGE CODE: (b)(4) AND DUNS NUMBER: (b)(4)
- 5 LEAD APPLICANT: CITY OF DETROIT, MICHIGAN
- 6 SUBCONTRACTOR: UNIVERSITY OF SOUTH ALABAMA

University of South Alabama 307 University Blvd, North Mobile, Alabama 36688 CAGE CODE AND DUNS NUMBER: <sup>(b)(4)</sup>

4)

7 TECHNICAL CONTACT

Dr. Jeff Landry University of South Alabama 307 University Blvd, North Mobile, Alabama 36688 jlandry@usouthal.edu 251.461.1596

## 8 ADMINISTRATIVE/ BUSINESS CONTACT

Mr. Steve Croft University of South Alabama 307 University Blvd, North Mobile, Alabama 36688 scroft@usouthal.edu 251.460.6456

## 9 PROPOSED PERIOD OF PERFORMANCE

August 1, 2011 through September 30, 2012

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## Technical Proposal

## Electronic Absentee Voting Risk Assessment

## Detroit, Michigan

#### 1 INTRODUCTION

Electronic alternatives, including online voting and voting with mobile devices, are now available that promise to make absentee voting more efficient and effective. Electronic voting alternatives are particularly attractive for overseas citizens and military personnel that have no other choice than by mail. Electronic voting system components, including support for online voting and voting with mobile add-ons, are currently under consideration for use in Detroit, Michigan. These electronic alternatives offer potential to enfranchise Military and Overseas voters in Detroit and across the United States. With any change, however, comes risk.

Electronic absentee system components, while clearly advantageous in terms of the ability to deliver the vote in a more timely way, and with fewer ballots lost or arriving late, nevertheless introduces new threats. Electronic voting systems are subject to cyber attacks, malware intrusions, technical failures, and user error. Some electronic voting alternatives, particularly precinct-based optical scanners and direct record electronic machines, have been used for a number of years, and the risks are well understood. Other technology alternatives, such as webbased online voting, and voting with mobile devices, are much newer and pose a variety of risks. An understanding of these risks is a necessary and important part of the process of new technology evaluation.

In this project, we propose to apply novel risk management methods to perform a comparative risk assessment of absentee voting alternatives for the City of Detroit using a risk assessment process created for the United States Election Assistance Commission (EAC). Our approach relies on the skills of independent experts and a spreadsheet-based simulation tool to compare election operations risks for the current absentee vote-by-mail system against the electronic options under consideration.

## 2 TECHNICAL APPROACH AND JUSTIFICATION

## 2.1 Executive Summary

We propose to conduct an assessment that comparatively evaluates risk in absentee voting systems for Detroit, Michigan. The comparison is between the current (non-electronic) absentee system for absentee voting and the electronic alternative, including online voting and the use of mobile device applications, under consideration as submitted to this solicitation<sup>1</sup>. The proposal seeks support through the FVAP, requested on behalf of election officials in Michigan.

The emphasis is on adapting election operations threat models and assessment tools developed by the investigators in prior government-funded work (Pardue, Yasinsac, and Landry 2010), to the current situation: the comparison between electronic and non-electronic absentee systems in Detroit, Michigan. The approach would create a set of threat models for each alternative,

<sup>&</sup>lt;sup>1</sup> Electronic Absentee Systems for Elections (EASE) Grants For States, Territories and Localities

utilizing information provided by multiple sources. These sources include the voting systems vendor, the Detroit election officials, and academic literature and reports on election operations risks. An independent expert panel will assess and compare risk in each alternative, and the Threat Instance Risk Analyzer (TIRA) will be used to assess risk in each instance, providing a comparison. The investigators will provide a report with recommendations to mitigate risk in either option. It is important to identify and calculate the risks of threats to election operations presented by a promising, yet not well understood new approach.

## 2.2 Project Goal

While being objective in terms of the assessment of risk, the investigators share a goal with that of the government and the technology vendor, which is to improve absentee voting in the United States. To do so, we propose to identify, model and calculate risk for threats to absentee election operations in Detroit, Michigan. The goal of the project, therefore, is to *produce a rank-ordered* (by risk) list of threats to absentee voting for each of the electronic and non-electronic absentee voting alternatives.

The project's goal, consistent with the FVAP's mission of identifying impediments to uniformed and overseas voting, is to identify threats to absentee voting in Detroit, Michigan. In doing so, the rank-ordered list of threats will consider each of the major categories of threat sources identified by applied risk management research and documented in published government risk guidelines. These categories of threat sources include: human-deliberate, human-unintentional, technical, operational, environmental, and natural.

The risk management approach is consistent with the FVAP value of being proactive, because a risk assessment is by definition a planning-oriented activity concerned with anticipating problems and resolving them before they occur.

The rank-ordering of these threats by risk achieves is our means of achieving efficiency, another key value of FVAP. By rank-ordering the threats, election officials in the City of Detroit, and the technology vendor, will be in the position to make an informed decision to mitigate absentee election operations risks. By focusing more resources on countermeasures for the higher risk-ranked threats, a cost-benefit approach to risk mitigation can be achieved. The public at large will benefit by the increased understanding of the risks posed by new technology, particularly online voting and voting with mobile devices.

#### **Project Milestones**

A major project activity is planned for execution and completion each month of the 13-month project. A list of these milestones follows.

#### Month-Yr Activity

- Aug-11 Conduct background literature review on election operations threats
- Sep-11 Prepare questionnaires, interview protocols for data collection
- Oct-11 Conduct data collection for Detroit's current (by-mail) absentee voting
- Nov-11 Conduct data collection for Detroit's new (electronic) absentee voting
- Dec-11 Complete report of absentee election operations for Detroit
- Jan-12 Produce threat model for by-mail absentee voting
- Feb-12 Produce threat model for electronic absentee voting
- Mar-12 Identify countermeasures to mitigate by-mail threats

- Apr-12 Identify countermeasures to mitigate electronic threats
- May-12 Conduct expert panel review
- Jun-12 Conduct risk simulation analysis to rank order threats
- Jul-12 Write report with recommendations
- Aug-12 Review report with vendor, City of Detroit
- Sep-12 Make modifications to report as necessary

## 2.3 Project Reporting

- 2.3.1 Programmatic and Financial Progress Reports
- 2.3.2 Data collection points reports

Each month, the Project Manager will prepare a status report. Within two weeks after the end of the reporting period, the status report will be delivered in hard copy and electronically by email. The report will be substantially in the following format:

- (1) Executive Summary
- (2) Summary of accomplishments from the preceding period
- (3) Summary of activity planned for the upcoming period
- (4) Project plan status and variance
- (5) Budget status and variance
- (6) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented
- 2.3.3 Pre-election status report (Aug 2012)

The project team will prepare a pre-election report for FVAP to detail preparations for the election. This report provides a detailed review of the accomplishments to date, the pending actions required prior to the election, and any risks associated with the project relative to the election.

#### 2.3.4 Final Report

The final report culminates the project.

#### 3 MANAGEMENT APPROACH

The University of South Alabama lead on the project is Dr. Jeff Landry, Professor the School of Computer and Information Sciences. Assisting Dr. Landry is Matt Campbell, Assistant Professor in the School of CIS, who will work closely with Dr. Landry in identifying and cataloging threats and conducting expert-based risk assessments. Assisting the faculty investigators will be a graduate assistant, a computing student majoring in one of the programs in the School of CIS.

Les Barnett, Director of the University of South Alabama Center for Forensics, Information Technology, and Security, is the Project Manager and will oversee day-to-day project operations.

## 3.1 Qualifications

### 3.1.1 Jeff Landry

Jeff Landry is a Professor in the School of Computer and Information Sciences at the University of South Alabama. His research interest relevant to the proposal is the management of information security. His experience as a member of the Election Operations Risk Assessment government-funded research project is directly related to the current proposal. He has published articles and book chapters on risk assessment, including voting system risk and health information systems risks, and has co-presented at an Infraguard meeting on the subject of data management during a natural disaster. He teaches risk management in a project management course; teachers a course on information systems strategy and policy, and has taught a special topics course on the management of information security, His practitioner experience included eight years working for a government contractor as a software developer and project manager.

#### 3.1.2 Matt Campbell

Matt Campbell is an Assistant Professor in the School of Computer and Information Sciences at the University of South Alabama. His research interest relevant to the proposal is managerial and behavioral aspects of information security. His dissertation was on the dark side of information technology adoption, and he has published in the area of health information systems risk assessment. He teaches a management information systems course to M.B.A. students, and has prior experience as an information systems professional, prior to his academic career. Dr. Campbell has funded research experience, currently serving on a federally-funded health education project.

#### 3.1.3 The Honorable Les Barnett

Les Barnett is the Director of the Center for Forensics, Information Technology, and Security (CFITS) at the University of South Alabama. He brings over 30 years of business management experience, most of which was in the information technology industry. Mr. Barnett was a founder of Omniphone, Inc. and operated that company as president and CEO for twenty years, retiring in 2008. While there, his company provided embedded systems to telephone service providers, including BellSouth, Ameritech, Southwestern Bell, Cincinnati Bell and others, as well as billing, data mining and other IT services. Mr. Barnett has also been an Alabama Poll official for 20 years, Poll Inspector for 2 years and a Chief Clerk for 2 years. Prior to that, he was a poll watcher for 10 years.

#### 3.1.4 Graduate Assistant

The School of Computer and Information Sciences has programs in computer science, information systems, and information technology at the undergraduate level, and information systems and computer science at the graduate level. It has recently received the distinction of being name a Center of Academic Excellence in Information Assurance. The ideally qualified graduate assistant will be a master's student who has taken the research methods course, and has undergraduate experience equivalent to the aforementioned undergraduate programs.

#### 3.1.5 Expert Panelists

The investigators have worked with more than a dozen computer security and election operations experts upon which to draw for its expert panel. These panelists are also familiar with the risk assessment approaches proposed in this study.

#### 4 **PROJECT EVALUATION PLAN**

The project proposes no formal evaluation plan, but the use of the expert panel to assess risk will in effect provide an evaluation of the investigator's threat models. The experts will not only provide an assessment of risk, but will have the opportunity to point out any incorrect or missing threats.

The project will be completed prior to the Fall 2012 general election. However, the results should be communicated in enough time so as to enable situational awareness of risk prior to the election so that some countermeasures can be put into place. A comparison of voter success rates between alternative systems is possible, as well as a comparison to voter success rates in the prior general election, in 2008.

### 5 CONCLUSION

The proposal is aligned with FVAP's mission of identifying and removing impediments to overseas and absentee voting. The investigators' experience and expertise in risk assessment, including risks in election operations, is critical. We hope to avert a possible worst-case technology deployment scenario of an election operations disaster, while potentially improving election operations by removing impediments in both absentee systems. What we learn in Detroit's case can advance knowledge of absentee voting risks and be applied across the country. Of particular value is the understanding gained of the risks posed by online and mobile device use in voting. The use of mobile devices has grown dramatically in recent years, yet these devices have the potential to expose sensitive data, and are difficult to control. The use of these an opportunity for a group of investigators experienced in risk management to advance the understanding of the use of mobile devices in election operations.

#### 6 **REFERENCE**

Pardue, Harold, Yasinsac, A., and Landry, J., "Towards Internet Voting Security: A Threat Tree for Risk Assessment," *CRiSIS 2010*, Montreal, Canada, October 10-13, 2010.

## Detroit Electronic Absentee Voting Risk Assessment: Comparing Mail-in to Online Plus Mobile Device Balloting

#### City of Detroit, Michigan

#### 1 CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 12.217

- 2 BAA NUMBER: HQ0034-FVAP-11-BAA-0001
- 3 TITLE OF PROPOSAL: ELECTRONIC ABSENTEE VOTING RISK ASSESSMENT
- 4 CAGE CODE: (b)(4) AND DUNS NUMBER: (b)(4)
- 5 LEAD APPLICANT: CITY OF DETROIT, MICHIGAN
- 6 SUBCONTRACTOR: UNIVERSITY OF SOUTH ALABAMA University of South Alabama 307 University Blvd, North Mobile, Alabama 36688 CAGE CODE AND DUNS NUMBER: <sup>(b)(4)</sup>
- 7 TECHNICAL CONTACT

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#### 9 PROPOSED PERIOD OF PERFORMANCE

September 1, 2011 through September 30, 2012

### 1 BUDGET PROPOSAL

## 1.1 Itemized Budget

We summarize our budget items in this section and provide a detailed budget as appendix.

#### 1.1.1 Direct Labor

Two months' summer salary each for Dr. Jeff Landry and Dr. Stephen M. Campbell. For a total of \$40,181 total fringe (25% of salary) is \$10,046, for a total of \$50,227. Les Barnett will commit less than one percent of his time to serve as project manager for a total of \$6,923 total fringe (25% of salary) is \$1,731, for a total of \$8,654. Funding has also been requested for one graduate assistant for the fall, spring and summer semesters for a total of \$13,750.

1.1.2 Administrative and Clerical Labor

There are no administrative or clerical charges from USA.

1.1.3 Fringe Benefits and Indirect Costs

Fringe Benefits are listed above with direct labor. F&A is charged at 38% of direct costs excluding tuition, resulting in a total of \$30,640.

1.1.4 Travel

We are requesting travel for two trips to Michigan for conducting interviews with elections officials and voting system vendors, as needed, for data collection. Milestones for data collection in October/November 2011 correspond to these activities.

1.1.5 Subcontracts/Sub-awards

No sub-contracting by USA is necessary.

1.1.6 Consultants

No consultants will be needed, other than the expert panel reviewers listed below under Other Direct Costs.

1.1.7 Materials and Supplies

No materials or supplies will be needed.

1.1.8 Other Direct Costs

Funding has been requested for an honorarium for four expert panel members for their efforts on the project (4 @ \$1,000 each) for a total of \$4,000. Graduate student tuition remittance for fall, spring and summer semesters, for a total of \$7,800.

# El Dorado County: Sponsor of the

Cal E-Promise California Consortium of Counties

Response to

Defense Human Resources Activity Federal Voting Assistance Program (FVAP)

Volume I Technical Proposal Catalog of Federal Domestic Assistance Number: 12.217 BAA number: HQ0034- FVAP- 11- BAA- 0001

> *Title of Proposal:* Comprehensive, Automated UOCAVA Voter Services and eBalloting System

> > CAGE Code: (<sup>(b)(4)</sup> DUNS Number: (<sup>(b)(4)</sup> Applicant: County of El Dorado, California Contractor: DemocracyLive <u>Technical Contact</u>: Barbara Dunmore (<u>barbara.dunmore@edcgov.us</u>) 2850 Fair Lane Court, Placerville, CA 95667 (530) 621-7483 / (530) 626-5514 fax <u>Business Contact</u>: William E. Schultz (<u>william.schultz@edcgov.us</u>) 2850 Fair Lane Court, Placerville, CA 95667 (530) 621-5494 / (530) 626-5514 fax Proposed period of performance: 9/2011 to 12/2016

> > > July 13, 2011 Submitted by: County of El Dorado, CA

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# Volume I

## Technical Approach and Justification

## 1. Executive Summary

This application is presented by Cal E-Promise, California to request funding in support of our acquisition and implementation of a web-based electronic ballot delivery system for our military and overseas citizens. Cal E-Promise has opted to be the lead sponsor for the largest consortium of counties applying for the EASE Grant. The name of our Consortium is **Cal E-Promise**. The goal of Cal E-Promise is to provide greater access to online services and tools in order to make the voting process easier and simpler for our growing population of UOCAVA voters.

Cal E-Promise represents over 50,000 known UOCAVA voters registered in our 12 participating counties. Our consortium recognizes that UOCAVA voters traditionally have a lower voting percentage than domestic voters and that the MOVE Act was passed to narrow the gap between UOCAVA and domestic voters. A web-based voter services and ballot delivery system will ensure that our participating counties will be in full compliance with the MOVE Act while eliminating the voting and ballot return gap between UOCAVA and domestic voters.

The vendor we have selected for this project is Democracy Live, in partnership with Microsoft Corporation. Democracy Live has worked with Microsoft to develop and deploy a comprehensive set of Uniformed and Overseas Citizens Absentee voting Act (UOCAVA) voter services for California. This solution offers the Democracy Live *LiveBallot* solution built on the Microsoft SQL Azure Platform.

The LiveBallot technology was developed by Democracy Live in partnership with Microsoft Corporation and guidance from the University of Washington Center on Technology and Disabilities. LiveBallot has been used in over 200 U.S. jurisdictions since 2008 and has been approved for funding by both the Department of Defense, via the EVSW pilot, and the Department of Health and Human Services under HAVA Section 261.

The team of Democracy Live and Microsoft will deploy a hosted, web-hosted solution ondemand ballot delivery system that is proven to work with our wide array of counties and their respective VR and balloting systems.

The resulting solution will enable El Dorado County and the rest of the California consortium to provide much enhanced voter services to our UOCAVA voters. Voters will be provided full services such as voter registration tools, absentee ballot notifications, on-demand, accessible ballot delivery and ballot tracking to any voter from any Web-connected computer, anywhere in the world. Through this program, Cal E-Promise will be able to provide complete usage data and reporting of UOCAVA participation.

Cal E-Promise is grateful for the opportunity to apply for the EASE Grant. We look forward to working with the Federal Voting Assistance Program (FVAP) and contributing to FVAP's one-stop portal for millions of UOCAVA voters.

#### 2. Goals and Objectives

The primary goals of this project are to increase UOCAVA voter participation base in the participating counties, as well as gather and provide comprehensive data detailing UOCAVA voter activities. More specifically;

- Develop and deploy a comprehensive UOCAVA balloting solution that will work with our existing VR and balloting systems to provide complete web-based voter services for our UOCAVA voters. Our goal is to deliver a complete voter life-cycle Web tool which will include, but is not limited to, voter registration tools, ballot request, on-demand ballot delivery, and ballot tracking.
- Develop and deploy innovative data tools to provide comprehensive statistics gathering of the UOCAVA voter services and activities for each election
- Reduce our overall long term costs of managing and supporting MOVE ACT compliance and UOCAVA services.

#### Key objectives for this project include:

- Provide tools for eligible Cal E-Promise voters to register to vote, determine their UOCAVA eligibility, complete an absentee ballot application and complete and return an absentee ballot in time to be tabulated.
- Improve ballot access for Cal E-Promise's UOCAVA voters, while at the same time, lowering long-term MOVE Act and UOCAVA voter services costs.
- Provide a means for Cal E-Promise to deploy a Web system where any computer can become the balloting tool, without the need to individually email ballot packets.
- Provide a UOCAVA solution that Cal E-Promise can build upon in the future as legislative needs catch up with the available technology.
- Provide analytical information regarding the usage and cost effectiveness of the solution.

To successfully meet the above stated goals and objectives for Cal E-Promise the resulting solution must offer:

#### A Reliable, Proven System

Any system with this level of importance must be proven and reliable. Our vendor's proposed system has been used in over 200 U.S. elections, delivering ballots to thousands of voters in over 60 countries since 2008.

LiveBallot is hosted on Microsoft's Windows Azure platform, providing 99.99% up-time reliability. Windows Azure delivers millions of transactions each month and is capable of automatically scaling up to meet any influx of voters to the system.

### Improve the Voting Experience for Our Voters

LiveBallot offers a variety of features and functions that directly improve our voters' balloting experience. By providing an easy to use, online interface, our voters can access their ballot at their convenience. This is especially important to overseas military voters who have unpredictable schedules. The LiveBallot administrative interface allows us to customize the way the information is presented to our voters. Instruction text, forms, graphics, theme and ballot look is all highly customizable to make the process feel seamless and localized to our UOCAVA voters.

## Reduce the Failure Rates of UOCAVA Voters

This proposal has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas of focus are:

- Voter Registration
- Ballot Delivery
- Ballot Return

Historically, the biggest challenge in UOCAVA participation is slow ballot delivery and return. This grant will enable us to deliver new initiatives and technologies to meet our goal of eliminating the gap between our domestic absentee and UOCAVA voters.

Grant funding will allow us to provide voters with an intuitive process to register online and receive notification of ballot availability. In addition it will greatly improve the speed by which ballots are delivered to and from our UOCAVA voters. Streamlining this process will reduce the failure rates of UOCAVA voters.

## Save on Costs and Overhead

LiveBallot utilizes the cost benefits of a cloud based solution by using Microsoft's Windows Azure platform. Using a web-based application, we do not need to acquire additional IT personnel, purchase or maintain any server equipment, spend time developing and testing software, or worry about managing updates. Additionally, when an election drives heavy voter traffic, we are not limited due to pricing plans or server resources, nor will we incur extra charges due to high bandwidth usage.

## Provide a UOCAVA Solution Capable of Advancing with Technology

LiveBallot is built on a solid core foundation with a robust modular architecture. The LiveBallot architecture provides three key advantages: reliable updates, components that can be enabled when we are ready, and nothing to install or download onto our IT infrastructure. The Democracy Live team is able to keep our solution current with the automated updates while continuing to build new features and improvements to meet our future needs.

The Democracy Live team understands the dynamic nature of technology and its effect on the election process. They understand our desire to utilize the best technology, as well as the necessity of never disrupting the voting process. The LiveBallot architecture will enable us to achieve both of these objectives while delivering uninterrupted service to our UOCAVA voters.

### **UOCAVA Improvement Projections**

We project that by fully deploying this new technology, we will dramatically streamline and speed the balloting process for our UOCAVA voting population, as well as save significant staff time complying with the new mandates of the MOVE Act.

- We anticipate our ballot return rate will improve by well over 50% with the goal of eliminating the ballot return gap between UOCAVA and domestic voters.
- We anticipate UOCAVA voter registration will increase by over 35%
- We anticipate that our UOCAVA voter participation rate will increase by over 35%
- We anticipate the percent of ballots delivered to ballots received will climb by over 40%.
- We anticipate voter confirmation (ballot tracking) will climb by over 75%
- We anticipate that our UOCAVA statistical reporting metrics and data aggregation tools will dramatically improve, thus enhancing our overall data metric reporting by over 75%.
- We anticipate that our staff time complying with the new MOVE Act requirements will fall by over 60%.

Ballot return rates are estimated to be similar to the national ballot return rates listed below:

Absentee Ballot Return Rates:

- 91%= General Population
- 67%= UOCAVA voters

The key metric for this State is to improve the ballot return rate for UOCAVA voters by at least 50% over the next election cycle, and moving towards future goal of a zero gap between UOCAVA voters and domestic voters by 2016.

## The Proposed Cal E-Promise UOCAVA System

The FVAP funding will ensure Cal E-Promise offers an intuitive, one-stop, seamless process to register online, receive notification of ballot availability, access and mark the ballot online, and dramatically improve the ballot return rate.

Summarized below is an overview of our proposed LiveBallot system and its key features which offer us the specific tools to meet our goals and objectives for this grant.

- Voter Specific, On-Demand Ballot Lookup

The LiveBallot system offers a Web-based, on-demand, voter specific ballot lookup. Using the LiveBallot system, voters from anywhere in the world can access their specific ballot online the moment the system goes live. This is a key feature of LiveBallot and eliminates the need for our staff to manually send email or paper ballots individually to each registered UOCAVA voter.

## - Online UOCAVA Registration

The LiveBallot system features customizable links and tools for a voter to electronically complete and submit their registration forms to ensure they are properly registered in time for the election.

### - Interfaces to External Systems

The LiveBallot system has been deployed in multiple U.S. jurisdictions using a wide variety of voter registration and vote tabulation systems. LiveBallot was designed to handle structured data exports (.txt, and .csv, .edx, and .xml) from the major election management and voter registration systems. In the LiveBallot account setup, the administrator simply selects the system used in the individual jurisdictions. The Data Import Tool then presents import steps specific to the system we identified. A simple mapping tool allows us to quickly and easily upload, import, and interact with the data to insure it is accurately imported into LiveBallot.

### - Data Import/Export Interface

Our vendor team understands the wide range of election technologies in use today and encourages the standardization of election data. If, however, we require customization, or have a unique data structure, a custom importer/exporter can be quickly created by implementing the LiveBallot Data Import/Export Interface.

### - Customizable Ballot Packages

LiveBallot delivers a voter's ballot in a return package which includes a blank ballot along with relevant and required documents such as instructions, oath of voter, and return envelope labels. Using the LiveBallot set-up tools, we have the option to fully customize the ballot return packages or to use the default documents provided by LiveBallot. Our own documents can be simply uploaded to the LiveBallot system and included in the package to be delivered to the voters. Customizable return packages enable us to meet federal, state, and local delivery requirements.

## - Flexible Ballot Display and Print Capability

LiveBallot supports both standard US  $(8.5 \times 11)$  and European (A4) sizes. Ballots printed using LiveBallot use standard computer printer paper sizes. Voters have the option to print a blank PDF ballot to be marked by hand or they may mark their selections online before printing. Ballots are downloaded to the voter's computer in a standard PDF format and are sized to print on any home printer.

## – Ballot Tracker Module

UOCAVA voters may return to our LiveBallot website to monitor the status of their ballot. We have the ability to include multiple tracking dates and/or messages in our voter registration file. Ballot Tracker then displays voter specific tracking information from our voter registration file. Absentee ballot request, ballot access, and returned ballot dates are examples of some of the tracking dates that we may choose to display to the voter.

- Accessibility Qualifications

The LiveBallot electronic balloting tool has been federally reviewed and approved by the U.S. Department of Health and Human Services and is Section 508 reviewed and approved. Additionally, LiveBallot has been evaluated and shown to have the highest levels of accessibility by the Center for Disabilities and American Council for the Blind. LiveBallot strives to meet Web Content Accessibility Guidelines (WCAG) 2.0 specifications where possible.

## – Multilingual Support

LiveBallot's flexible layout engine allows for multi-lingual or single language ballot displays. Ballot data and on-screen instructions are managed by a translation system. Translations may be directly entered into LiveBallot or a translation file may be uploaded. If a translation file is not available, we can download a translation file from LiveBallot, enter translations, and then reupload the file.

## - Reporting

LiveBallot tracks voter events to offer a number of valuable statistical reports. The LiveBallot dashboard allows a quick view of the number of visitors and other statistics for our jurisdiction. Examples of some of the reports provided by the LiveBallot system are:

- Election data proofing reports
- Number of visitors to our LiveBallot website
- Number of ballots downloaded
- Delivery method usage statistics
- Customized reports derived from LiveBallot data
- Ballot Delivery

LiveBallot offers selectable options for ballot delivery to our voters. This includes mail, fax and email ballot return packages that include all of our required documents.

## - Auto-Duplication and Direct Tabulation Ready

We expect to see a significant increase in returned ballots from our UOCAVA voters due to this implementation. LiveBallot is compatible with an optional ballot-on-demand system which automates the manual ballot duplication. The LiveBallot auto-duplication package reduces duplication time by over 90%. Additionally, our vendor team has partnered with Unisyn and is working jointly on an auto tabulation system capable of directly scanning and tabulating ballots printed from LiveBallot.

## - Protect our voter's privacy and information

Our vendor team understands that the security of voter information and election data is one of our most important concerns. The Microsoft solution protects the voter's privacy, as well as our election data, with its combined front and back end security. LiveBallot ensures the privacy of all data by providing protection both in transit and in storage.

LiveBallot protects voter data on the front end using highly secure SSL encryption, automatic expiration of a voter's session on the website, and limitations on the information stored in the voter's session. Voter information and election data uploaded to LiveBallot is safely stored on Microsoft's Azure platform and is protected by Microsoft's security standards. The Windows Azure platform offers the highest level of security and was designed with a focus on confidentiality, integrity, and availability of customer data. Microsoft employs some of the leading security and cryptographic experts in the field with subject matter expertise in online security.

LiveBallot is hosted domestically in the United States utilizing the scalability and security of Microsoft's Windows Azure platform. LiveBallot complies with federal and state elections laws and will continue to meet the laws of federal and state elections rules. With billions of transactions securely hosted and delivered, the Azure platform offers us the highest degree of confidence our data will be protected and available when needed.

#### - Help Desk and Support Statistics

The LiveBallot Support Team provides 24/7 support during elections and is available for assistance when needed. The Support Team maintains help desk statistics on call volume, resolution, and response time. Help desk reports are made available upon request.

#### 3. Schedule and Milestones

The phases of this project would consist of documenting our requirements to allow for the configuring of the LiveBallot system. During this phase, we will perform the following tasks that allow us to identify our business requirements as they pertain to electronic balloting:

Requirements Gathering

- Provide onsite workshop demonstrations of the LiveBallot tools
- Setup working group sessions to document our business and technical requirements
- Identify election file import requirements
- Identify onscreen instruction requirements
- Identify user roles and associated permissions for the LiveBallot tools
- Identify Return Ballot Packages and custom ballot package form requirements
- Identify requirements for election set-up and county inheritance of state-wide data, when applicable

The Planning/Development phase consists of the following activities:

- Analyze the results from requirements gathering and determine configuration
- Configure the tools to address election file import requirements
- Develop onscreen instruction requirements based on requirements
- Setup user roles and associated permissions for LiveBallot based on identified requirements
- Create Return Ballot Packages and custom ballot package forms
- Setup the tool to support state-wide elections set-up and county inheritance of state-wide data (as appropriate)

The testing phase will consist of performing the following activities:

- We will conduct a test pilot in the production environment using the LiveBallot tool
- We will conduct acceptance testing procedures to ensure that the requirements identified in the requirements phase are satisfied
- Perform remediation configuration activities on the LiveBallot tool to address any issues/problems uncovered during the pilot test exercise
- We will develop a Test Report that documents Acceptance Test procedures and resulting using the pilot test users

Project Phase / Milestone

- Initial Meetings
  - o Request for Information
  - Determine point of contact and escalation (roles/responsibilities)
  - o Formalize Requirements

- o Sign-off of Requirements Documents
- Configuration (and Customization)
  - o Administration Configuration
  - o Setup jurisdiction contact information
  - o Core Configuration
  - o Online Ballot Instructions
  - o Ballot Package (Mail, Fax, Email) Completed
- Email Notification to Voter
  - o Discuss and verify email notification process
  - o Define our PIN Generation Process
  - o Discuss Email Reporting (what and when)
  - o Formalize notification workflow
- Discovery and Analysis (import data)
  - o Upload VR Data
  - o Upload and Import Election Data
  - o Analyze data for completeness
  - o Proof Election Data Mapping
- Internal Testing
  - o Verify election ballot data
  - o Verify ballot delivery settings
  - o Verify county page content and links
- Initial UAT
  - o Conduct UAT Prep Meeting
  - o Conduct Initial UAT Requirements and Functionality Walk-through
  - o Send UAT results and issue tracking XLS
  - o Get UAT results confirmation and acceptance
  - o Address initial UAT gaps
- Final UAT
  - o Schedule Final UAT Meeting
  - o Conduct Final UAT Requirements and Functionality Walk-through
  - o Send Final UAT results and issue tracking XLS
  - o Get Final UAT results confirmation and acceptance
- Go-Live
- Exercise Support Process
- Conduct Final Walkthroughs and Data Validation
- Execute Workflows (e.g. Notification)

#### 4. Reports

This grant will allow us to develop and deploy a wide range of detailed reports specific to our UOCAVA Enhancement Project. Previously we had neither the tools nor resources necessary to fully implement a UOCAVA reporting system. With this grant we expect to implement the following reporting capabilities:

• UOCAVA Enhancement Cost Tracker

o Tracks time spent preparing deploying electronic ballots for our UOCAVA voters.

- UOCAVA One-time and Annual Payments to our selected vendor
- UOCAVA Enhancement Trend Analysis
  - o Measures the rate of improvement for each of the following metrics:
    - Voter Registration
    - Ballot Delivery
    - Ballot Return
    - Time Spent on the Site
    - Voter Access vs. Downloads
    - Voter Registration to Download Trends
    - Voter Access by Geography

## **Management Approach**

Our management approach represents a proven development approach that provides for welldefined phases that take into account development of requirements, architectural design, detailed software design, software development, system testing, and managed release cycles.

Phases for the solution approach that are involved in this project are shown below:

- Envisioning: Envisioning involves creating a business vision and defining an approach to bring the vision to reality.
- Planning and Development: Planning continues through the development of functional requirements and a project plan for the project.
- Stabilization: Our team in cooperation with the vendor will test the solution and make modifications as needed.
- Deployment: The Deployment phase includes deployment of the solution and final testing.

Key Activities during the project will include the following:

- Kick-off and Vision and Scope meeting
- Define roles and responsibilities
- Outline key information needed to complete the project
- Confirm project approach
- Build and confirm project plan.

#### **Eight Criteria Areas**

Cal E-Promise endorses the eight criteria areas that are used to measure and evaluate this new UOCAVA program. Those areas are:

#### Significance/Impact

This Grant Request has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas and metrics that we focus on are:

- Voter Registration
- Ballot Delivery
- Ballot Return

Historically, the biggest challenge for the UOCAVA voter population has been in "ballot return". LiveBallot will help meet the goal of eliminating the gap between domestic absentee voters and UOCAVA voters in all the key metrics, especially ballot return.

In addition, the FVAP grant will be allow us to ensure that all voters, regardless of deployment within, or outside of the U.S. will always have a reliable method to register, access, and return their ballot. Cal E-Promise has over 2.6 million registered voters and we are an increasingly mobile population with a growing rate of military personnel. There is no way of knowing who or when a voter may be out of the country or mobilized. The system we are selecting must be capable of addressing the mobility needs of every voter in our voter registration system.

#### Strategic goals

Cal E-Promise considers the UOCAVA project a highly strategic opportunity to dramatically ease the process of balloting for overseas and military voters. In addition this project will secure the tools necessary to ensure any of the registered voters in the County are able to easily register and become an eligible UOCAVA voter, when necessary.

Key strategic goals for this project are as follows:

- Improve ballot access for UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials.
- Provide a solution that can build upon in the future as legislative needs catch up with the available technology.
- Provide an overall long term cost-effective solution for our elections.
- Provide analytical information regarding the usage of the solution.

Our working hypothesis for this project states:

- A complete lifecycle Web-delivered UOCAVA voter services will;
  - o Reduce barriers to UOCAVA voter registration, access and information
  - o Decrease the voting and ballot return gap between domestic and UOCAVA voters.
  - o Decrease cost of MOVE Act compliance, while increasing UOCAVA voting.
- Comprehensive data collection will;
  - o Demonstrate effectiveness
  - o Enable comparison both over time, and between jurisdictions.
- Use of common data formats, particularly those emerging from IEEE standards will;
  - o Enable data mining of statistics from many jurisdictions.

Our strategy is to offer our UOCAVA voters a one-stop, turn-key electronic ballot and registration tool that offers a dynamic and flexible platform that will reflect our current and future electronic balloting requirements. The end result will be significantly easier access to awareness, registration, online ballot marking, return, and tracking of the ballot for all eligible UOCAVA voters.

Long-term strategy may involve expanding the system to offer UOCAVA voters a multiplatform, electronic ballot application that is available via Facebook, mobile phone, search or any number of emerging platforms, beyond our website. The elections expertise of Democracy Live and resources of Microsoft offer capabilities to grow with our laws, and our imaginations.

### Sustainability

Our elections offices are understaffed and under-resourced. Accordingly, Cal E-Promise has designed this project to meet the following criteria:

- Low long-term costs Our vendor's long term payment model offers an option where the County only pays for what we use. For example, beyond the grant years, our jurisdiction will only pay based on the number of ballots actually downloaded.
- Secure, cloud-based systems are proven to offer significantly lower server and hosting costs.
- To ensure long-term sustainability, the LiveBallot solution offers a suite of applications that can be deployed to ensure our UOCAVA voters are getting a broad-based level of use from a wide variety of features and tools.

#### Innovation

Democracy Live has been an innovative pioneer in the voter information technology space having developed and deployed:

- ✓ The first web-based, interactive accessible voter information guide.
- ✓ The first multimedia, interactive electronic ballot and sample ballot specific to each voter.
- ✓ The first comprehensive, multi-station, end-end mail ballot tracking system.
- ✓ A seamless, automated method to auto-duplicate ballots.

All of the above tools are integrated into our proposed MOVE Act solution and may be turned on at the discretion of Cal E-Promise. Of note, is the innovative feature integrating the candidate statement (voter guide) tools into the system to better inform our UOCAVA voters at the time of balloting.

Microsoft Corporation has some of the world's leading innovators in areas of privacy, identity, data propagation, cross-platform utilization and security.

The combination of Democracy Live and Microsoft ensures that our team has the resources and subject matter expertise to ensure we constantly adapt to the evolving market, while adding innovative features.

#### Scalability

Scalability, security and stability are the key reasons LiveBallot is hosted in the Microsoft Azure cloud environment. With a proven 99.99% uptime and real time, multi-geographic server redundancy our voters can be assured their ballot will be available. Elections are a classic case for a cloud-based application. The LiveBallot server environment will automatically scale to meet the spikes and voter rush typically associated with elections. Using a cloud-based auto-scale environment our staff need not worry if we have enough server capacity. Microsoft Azure will ramp up automatically at no additional cost.

With tens of millions of monthly transactions, Azure is the second largest server network in the United States, second only to the U.S. Department of Defense. We are confident in the scalability of this system.

### Collaboration

A key objective for the Cal E-Promise is to offer a seamless, integrated solution in collaboration with each of the elections jurisdiction in our California consortium of counties. Cal E-Promise has the extended benefit of sharing innovative ideas and providing for cross-county communication on best practices and procedures while offering a similar balloting experience to each jurisdiction's UOCAVA voters.

### Cost Benefit

Cal E-Promise has over 2,600,000 registered voters. A truly comprehensive MOVE Act and UOCAVA solution must be able to touch each of our registered voters, since any one of them may become UOCAVA eligible at any time. Additionally, the award of this FVAP grant will enable Cal E-Promise to deploy a comprehensive, automated MOVE Act and UOCAVA services tool for years to come.

We expect to offer the LiveBallot system to every UOCAVA voter for every election. We believe that our UOCAVA voters should have equal access to the ballot, regardless of the size of the election. Therefore, we expect to use this solution for a minimum of three elections per year.

We estimate a minimum of 750 hours of manual staff time to successfully comply with the MOVE Act and UOCAVA assistance per election at a rate of \$50 per hour. This total equates to a 4 year total of \$450,000 (at three elections per year). Processing and mailing ballots individually is an additional significant cost of nearly \$195,000 over four years.

The Cal E-Promise anticipates a total UOCAVA and MOVE Act compliance cost of over \$800,000 over a four year period. As noted in the table below, this grant will enable us to deploy a perpetual system with manageable annual fees that will dramatically lower the twelve year costs by over \$900,000.

	Number of	Cost to St	ate and Locali	FVAP	12 Year	
	work hours per year	4	8	12	Project Cost	Savings
MOVE Act Compliance	2,250	\$450,000	\$900,000	\$1,350,000		
UOCAVA Registration	780	\$156,000	\$312,000	\$468,000		
Materials - Server, Equipment, paper and postage		\$195,000	\$390,000	\$585,000		
	3,030	\$801,000	\$1,602,000	\$2,403,000	\$1,485,000	\$918,000

\* Not including \$1.00 per ballot download fee beginning 2017

The deployment of the LiveBallot solution will eliminate the need for elections staff to manually register a UOCAVA voter application, and send a paper or email ballot. LiveBallot reduces staff time substantially, while fully complying with all the provisions of the MOVE Act.

Using the one-stop LiveBallot application, UOCAVA voters may access online registration tools, access, mark their ballot, print, fax, or mail all the required materials, and track their ballot. Staff needs only add the voter into their VR system, and send the email notification to the UOCAVA voters notifying them of ballot availability. We anticipate a significant impact on our coalitions' staffing and resources, saving over 60% of time while still fully complying with the MOVE Act.

The optional LiveBallot Auto-duplication solution is designed to reduce manual ballot duplication time by over 90%. This can be a substantial cost savings as the gap between UOCAVA and domestic voters is narrowed.

#### Analysis and measurement of current processes

We agree with the authors of the MOVE Act that due to logistical, geographical, operational and environmental barriers, military and overseas voters are burdened by many obstacles that impact both the voter registration process and, most importantly, their right to vote. Most critical are problems transmitting balloting materials and timely delivery.

As the MOVE Act underscores, localities clearly play a critical role in addressing the challenges UOCAVA voters face and providing appropriate solutions.

The consortium's UOCAVA voter population has expanded over the last decade due in part to increases in the number of military personnel deployed overseas and an increasing global world. We estimate nearly two thirds of our UOCAVA personnel are affiliated with the armed services. In order to serve this growing constituency, we traditionally have deployed a variety of tools to ensure timely access to the ballot. These measures include links to the FPCA and the Federal Write-in Absentee Ballot (FWAB) on our elections home page. Additionally, we mail and email ballots to eligible UOCAVA voters.

The spirit of the MOVE Act is well-intentioned and we must now rise to the challenge of meeting the new requirements of the law utilizing an already taxed election team during the critical days of an election. The MOVE Act law requires electronic ballot delivery 45 days prior to a federal election; this requires staff to spend precious election time to keep the jurisdiction in compliance with the new law.

Our elections administrators have determined that we have narrowed the gap between our domestic and UOCAVA population in area of voter registration and are making progress in the area of voter participation. There remains, however, a significant gap in ballots returned in time to be tabulated. Our key success metric is to improve the process of successfully transmitting and receiving the ballot in time to be accepted and counted.

Our current procedure is a labor-intensive process that is amplified by the MOVE Act requirements. This grant funding will allow us to acquire new technologies to automate our registration, transmittal and the processing of UOCAVA ballots for our voters, thus significantly increasing our ballot return rate for our military and overseas voters.

### Identification of each process and the elements that are related to the process

Our UOCAVA voter population has expanded over the last decade. In order to serve this growing constituency, our current process is as follows:

- Voters apply to vote as a UOCAVA voter using the Federal Post Card Absentee Application
- Once registered and in the system, we mail or email a physical ballot to the voter. Recent efforts have included emailing a ballot and the requisite balloting information to requesting UOCAVA voters with a valid email address.
- Our goal has been to send our registered UOCAVA voters a ballot no later than 45 days in advance of an election.
- The ballot is returned by the voter, along with the signed affidavit attesting to their validity as a registered, eligible voter.
- Emailed ballots are typically duplicated, or re-made onto a ballot that may be tabulated.
- Eligible ballots are processed and submitted for tabulation.

### Identification of potential risks and mitigating strategies

We believe the rewards of implementing an automated, fully compliant MOVE Act solution that has been used and tested in hundreds of localities around the country greatly outweigh the risks associated with deploying a new technology. However, any successful project must understand that there are risks associated with initial deployments. These risks entail:

- Newer technology in the early part of the life cycle
- Lack of voter awareness of new electronic balloting tools

In order to mitigate the above listed risks we plan to deploy the following risk mitigation strategies:

- We will conduct a test pilot in the production environment using the new technologies.
- We will conduct acceptance testing procedures to ensure that the requirements identified in the Envisioning Phase are satisfied.
- Perform remediation configuration activities on the LiveBallot electronic ballot tool to address any issues/problems uncovered during the pilot test exercise
- We will develop a Test Report that documents Acceptance Test procedures and resulting using the pilot test users.
- Revise and refine our back end processes to handle the expected increase in UOCAVA ballots.

The deployment phase will consist of the following activities:

• Execute operational test procedures to ensure the technology is functioning properly

- Provide our team access to the tool to allow execution of administrative procedures and to run reports
- Provide operational support during an election to ensure the electronic ballot solution is made available to our voters

The following general procedure will be used to manage project issues and risks:

- Identify and document
- Assess impact and prioritize
- Assign responsibility
- Monitor and report progress
- Communicate issue resolution

A mutually agreed upon issue escalation process will be defined at the outset of the project.

### Formalization of performance indicators for each process

It is critical for us to be able to manage and compile reports for each of our key performance metrics. These metrics include a wide array of measurable elements, including detailed statistical reports on the voter registration, balloting activity and cost tracking. LiveBallot tracks voter events to offer statistical reports for our jurisdictions. The LiveBallot dashboard allows a quick view of the number of visitors and other statistics for each jurisdiction

#### Justification for the modification to the existing processes

Our current UOCAVA process is a labor-intensive, manual environment in which our elections staff must spend a disproportionate amount of time. We believe that every eligible voter should have equal access to the ballot. Therefore, regardless of the time it takes, our staff will ensure the ballots gets delivered and processed. Our key objective is to narrow the gap between domestic ballot return and UOCAVA ballot return. By automating the process with the LiveBallot system, our UOCAVA voters will be able to register to vote, access, mark their ballot, and track the status of their ballot, on-demand and online. In addition, automating the MOVE Act compliance requirements will free up our staff to do other necessary elections critical activities that relate to all our voters, domestic and abroad.

We are confident that an automated, Web hosted solution will greatly narrow the gap between UOCAVA and domestic voters, while reducing the costs associated with a manual process. By deploying the LiveBallot system we can offer voter registration, ballot access and ballot return at nearly a 60% quicker rate than our tradition manual process. As a result of LiveBallot, we expect that at least 50% less work-hours will be spent on UOCAVA related voter registration, ballot delivery, and ballot processing and ballot duplication.

The LiveBallot system will be available to every eligible voter around the world, on-demand, without relying on any one individual to mail or email a ballot package. Every laptop or computer with a browser will become an electronic ballot tool, delivering the correct ballot to the correct voter, no matter where in the world they live, regardless of physical disabilities.

Finally, our selected system has been reviewed and approved for the highest level of accessibility for disabled voters by the University of Washington Center on Disabilities Council for the Blind. Using the LiveBallot system, every eligible UOCAVA voter, from Waziristan to Walter Reed will have access to their ballot, where and when they want it.

### Measurements of performance

Our objective is to continually assess, measure, and track our improvement relating to our UOCAVA population. The technology we have chosen offers an array of reporting tools to ensure we are able to performance measure what we are managing. The reporting tools include, but are not limited to:

- Number of voters requesting a ballot
- Number of visitors viewing a ballot
- Number of ballots downloaded
- Delivery method requested/downloaded
- Ballot sent to ballot received ratio
- Ballot sent to ballot downloaded ratio
- Locality and Region of voter activity
- UOCAVA Enhancement Cost Tracker
- UOCAVA Enhancement Trend Analysis

An annual final report will summarize the entirety of the data and financial reports. This is the report that is to be made available to FVAP by the  $15^{th}$  of February for each of the grant-supported years, but at least through 2016.

# 1. Current and Pending Project Proposal Submissions

We currently have no current or pending projects that overlap with this initiative. We have been in strategy discussions about the various balloting tools that are available to assist not only our UOCAVA voters, but also ways to assist our disabled population. However, we have no current or pending program or proposal developed or planned at this time.

# 2. Qualifications

Democracy Live, Inc., our technology and solution provider is a pioneer in the emerging voter information technology industry. With decades of elections experience, Democracy Live has successfully deployed innovative voter information technologies in hundreds of jurisdictions. The Democracy Live system has been used in over 200 U.S. elections since 2008, delivering ballots to thousands of voters in over 60 countries.

Microsoft Corporation is the worldwide leader in software, services, and solutions that help people and businesses realize their full potential. Microsoft has been supporting the Department of Defense, Microsoft's largest customer in the world, for more than 30 years. Microsoft has been providing on-line services to hundreds of millions of users for more than 15 years.

Specifically, Microsoft Corporation has extensive experience developing the Washington State Statewide database and working on the New York State Voter Registration project. Microsoft was the Prime contractor for the 2010 FVAP Project, using Democracy Live technology. Microsoft's largest customer is the U.S. Department of Defense, the sponsor of the FVAP funding.

# Volume II

# **Budget Proposal for Cal E-Promise**

Through the use of the requested FVAP grants funds the California consortium of counties (known hereafter as Cal E-Promise or the consortium) will be able to purchase and implement a comprehensive, automated UOCAVA Voter Services and eBalloting system. As noted in the Cost Benefit of the Management Approach Section of this Proposal, the deployment of the LiveBallot UOCAVA system will lower long term costs while significantly increasing services to our UOCAVA voter population.

As noted previously in this Proposal, we project that by fully deploying this new technology, we will dramatically streamline and speed the balloting process for our UOCAVA voting population, as well as save significant staff time complying with the new mandates of the MOVE Act. The funding of this grant will allow us to meet the following goals by 2016:

- We anticipate our ballot return rate will improve by well over 50% with the goal of eventually eliminating the ballot return gap between UOCAVA and domestic voters.
- We anticipate UOCAVA voter registration will increase by over 35%.
- We anticipate that our UOCAVA voter participation rate will increase by over 35%.
- We anticipate the percent of ballots delivered to ballots received will climb by over 40%.
- We anticipate voter confirmation (ballot tracking) will climb by over 75%.
- We anticipate that our UOCAVA statistical reporting metrics and data aggregation tools will dramatically improve, thus enhancing our overall data metric reporting by over 75%.
- We anticipate that our staff time complying with the MOVE Act requirements will fall by over 60%.

Ballot return rates are estimated to be similar to the national ballot return rates listed below: Absentee Ballot Return Rates:

- 91%= General Population
- 67%= UOCAVA voters

The key metric for this consortium is to improve the ballot return rate for UOCAVA voters by at least 50% over the next election cycle, and moving towards future goal of a zero gap between UOCAVA voters and domestic voters by 2016.

In addition to the tangible, "dollar certain" return on investment analysis detailed above, we believe that the proposed project will provide substantial intangible return on investment that should be taken into account into determining the justification for this project, to include:

- Vital data and statistical data gathering to further inform both the consortium counties and FVAP of UOCAVA balloting and voting experiences.
- Valuable lessons learned and experience applicable to future voting technology initiatives for UOCAVA voters;
- Improved voter awareness of the availability of voter assistance programs; and
- Improved voter satisfaction with the voting process.

# 1. Itemized Budget:

The itemized budget will contain a detailed list of the following:

# a) Direct Labor:

We do not expect to incur any additional labor costs associated with this project.

# b) Administrative and clerical labor:

El Dorado County, as the sponsor county of the consortium, will incur administrative costs equal to 2% of the overall consortium budget to administer funds to the participating consortium counties.

# c) Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):

We do not expect to incur any additional fringe benefits and other overhead costs.

# d) Travel:

We do not anticipate any additional travel related expenses for this project.

# e) Subcontracts/sub awards:

The pricing for licensing and annual support per county for the consortium is attached to this document.

# f) Consultants:

We do not intend to use nor request funds for any outside consultants for this project.

# g) Materials and Supplies:

Item Description	Years	Pricing (estimated)
LiveBallot Includes: One-Time set-up fee & license Hosting and deployment, 25 hours on-site training and Project Management, Subscription and Support (including version upgrades)	4	See table in supporting documentation below
Post Grant Period: 2016 and beyond Subscription and Support - Includes all version upgrades		\$1.00 per downloaded ballot
Ballot on Demand Solutions for Auto-DuplicationIncludes: License fees; printer; scanner; per-copy costs (if any);ballot card stock; toner, ink, or photoconductor units (if needed)Depending on existing equipment, not all jurisdictions have thesame needs. All figures based on use in Federal elections only.	4	See detailed table in supporting documentation below

# h) Other Direct Costs:

Reaching out to nearly 50,000 known UOCAVA voters across 13 California counties and the globe will require an aggressive plan to reach them—both here at home and abroad. Use of traditional print media and newer social and web-based media will be essential. The associated costs are listed below.

Print Media	
Print Ads- Sample Ballot Filler Pages	\$15,000.00
Direct Mail Piece (Printing and Mail Fulfillment)	\$20,000.00
Tri-Fold Brochure	\$15,500.00
Flyers	\$10,000.00
Posters Print Costs Total	\$ 7,500.00 \$67,500.00
ilectronic Media Web Banner (Design & Ad Placement)	\$15,500.0
Electronic Costs Total	\$15.500.00
Branding	
Logo & Branding Development	\$750.4
Branding Costs Total	\$750.00

ESTIMATED TOTAL

\$83,750.00

# **Reference Tables**

# Itemized Budget Subsection (e) - Contractor, Subcontractor Awards

#### LiveBallot UOCAVA eBalloting System

(as described in detail in the *Technical Approach and Justification*)

One Time Fee (to include Licensing and Annual Support) per County through 2016:

<u>Consortium County</u>	Four (4) Year Licensing Fee*
Butte	\$ 75,000
Contra Costa	200,000
El Dorado	75,000
Fresno	200,000
Lassen	35,000
Marin	75,000
Nevada	75,000
Sacramento	200,000
San Joaquin	150,000
San Luis Obispo	150,000
San Mateo	150,000
Santa Barbara	150,000
Solano	150,000

Consortium Total: \$ 1,685,000

\*Includes training and support

# Itemized Budget Subsection (g) - Materials and Supplies

# **Ballot on Demand Systems for Auto-duplication of Voted Ballots** (as described in detail in the *Technical Approach and Justification*)

В	allot on Demand	
Consortium County		1
Contra Costa	\$9,000	Scanner equipment + software
El Dorado	\$9,000	Scanner equipment + software
Sacramento	\$9,000	Scanner equipment + software
Total:	\$27,000	APAPAPAPAPAPAPAPAPAPAPAPAPAPAPAPAPAPAP

OVERALL CONSORTIUM	\$1,795,750
TOTAL BUDGET	31,795,750

# GUAM ELECTION COMMISSION

# **Kumision Ileksion Guåhan**

Your vote is your voice. Bota ya un ma kuenta.

# **Technical Proposal**

Catalog of Federal Domestic Assistance Number: 12.217 BAA number: H98210-BAA-11-0001

Title of proposal:Improve Voting for Guam UOCAVA Voters through the Utilization of the<br/>UOCAVA System Enhancement Research Program (USE Program)

CAGE Code: DUNs Number:



Applicant:Guam Election CommissionSub Contractors:Election Systems and Software, Inc and Scytl USA LLC

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Period of Performance: 2012 - 2016

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#### 3. Technical Approach and Justification

#### 3.1. Executive Summary

The Guam Election Commission is committed to growing and adapting our services and supporting technologies to meet the challenges facing our military and overseas voters and their continuing needs. Guam's participation in the Electronic Absentee Systems for the Elections Grant initiative will allow the continuation of efforts to research and evaluate innovative technologies and associated services that will improve, and increase the successful level of participation within this valuable constituency group. The Guam Election Commission intends to address these challenges as well as others through the establishment of the UOCAVA System Enhancement Research (USE) Program.

The Guam Election Commission's key program objectives include establishing and successfully improving electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The Guam Election Commission also believes the efficacy of our efforts can be shared and will benefit other jurisdictions.

Considering Guam's background and current UOCAVA solution, working with ES&S and Scytl as well as academic researchers from Cal Tech University and the University of Utah will best address Guam's unique requirements and result in the most effective, innovative, repeatable, documented, and sustainable solution for Guam. ES&S and Scytl have committed to providing a unique solution customized to fit the requirements of Guam.

Guam is located in the Western Pacific, at approximately 13 degrees North latitude and 144 degrees West longitude, close to Japan, Manila and Australia. Guam is approximately 36 miles long and 4 to 9 miles wide, with 214 sq. miles of land area (excluding reefs). Temperatures range from an overnight low in the 70's to an afternoon high in the upper 80's. The rainy season runs from June to December, when we receive most of our annual average of 90-110 inches of rain. The dry season extends from December to June, with trade winds from December through February bringing the coolest and driest months.Guam is an unincorporated territory of the United States. U.S. currency is used and American citizens do not need a passport to enter. The U.S. Postal service handles the mail. The official languages are Chamorro and English. (About 80% of the Chamorro language has Spanish roots, as Spain occupied the Mariana's for more than 200 years from 1668 to 1898).

Fifty-two thousand eight hundred twenty-one were registered to vote for the 2010 Guam Elections. Seventy-seven percent of those registered voted. Three-thousand seven hundred twenty-five exercised their right to vote early in the GEC office. Two-hundred thirty-seven voters requested to vote at home with 167 serviced at home. Guam received 98 UOCAVA voter application forms with 92 applications processed. With the EASE grant, Guam hopes to increase the UOCAVA participation to well over 1,000 voters. The realignment of US Forces from Japan to Guam will result in a substantial increase in military personnel and dependents stationed on Guam. There are approximately 14,190 military personnel and dependents currently stationed on island, and it is estimated that an additional 26,190 military personnel and their dependents, including 9,700 Marines, will be relocated before 2014, for a projected total of 40,380 military personnel and dependents.

# 3.2. Goals and Objectives

# 3.2.1. UOCAVA System Enhancement Research (USE) Program Overview

The Guam Election Commission proposes a UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate in the ballot return process.

# 3.2.2. Factors Achieved

The Guam Election Commission believes that Guam's unique assets, capabilities, locations, and personnel through the UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl will foster and develop products and processes which will lessen the impediments that exist for the UOCAVA voter and will strongly address the Evaluation Factors stipulated in the FVAP EASE Grants program. For example, these factors are achievable through the deployment and use of the BALLOT*safe* solution complimented with customizations for Guam and related research and analysis. Our research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

# 3.2.2.1. Significance

Knowing that research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate, the USE Program will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- Voter Registration BALLOT*safe* will work in coordination with any online voter registration system and through the use of tools and procedures will provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot Request BALLOT*safe* will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT*safe* to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.
- Absentee Ballot Delivery BALLOT*safe* will utilize the ballot data from any Guam election management system and deliver the precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT*safe* online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.
- Absentee Ballot Marking BALLOT*safe* provides an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write-ins,

straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.

• Absentee Ballot Return and Tabulation – BALLOT*safe* will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT*safe* will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assists in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately through BALLOT*safe* and through email notifications.

# 3.2.2.2. Sustainable

The Guam Election Commission is focused on constructed cost-effective and sustainable solutions which successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in Guam's assessment of sustainability shown below. The Guam Election Commission believes these factors are achievable through a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. Guam will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the USE Program. Further information can be found in the ROI analysis provided in the Budget Proposal.
- The program and solution will be **logistically sustainable**. The USE Program will seek to realize operational efficiencies over the current processes through the BALLOT*safe* technology which will provide a lower level of effort which can be sustained even with decreasing budgets. Examples of this include easier exchange of ballot and voter information between technology systems, less effort and cost in the delivery of ballots electronically, quicker processing of returned absentee ballots, and quicker and more reliable replication of ballots upon return.
- The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform which relies on advances in cryptographic protections, advances in Java based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

By selecting the ES&S/Scytl product offering of BALLOT*safe* Guam is ensured of a long term commitment from a vendor who has a long history of election experience and can continue to provide updates and enhancements to the product for many years to come. Furthermore, by incorporating the cost for the USE Program through the year 2016, Guam is ensuring a consistent and sustaining offering to its voters and election officials. Also, utilizing multiple election cycles to gather and analyze statistics and feedback will strengthen the USE Program's findings and allow for a greater impact and significance. Specifically, the Guam Election Commission expects to support the following through 2016:

- Maintain BALLOT*safe* services with ES&S and Scytl through an annual Right to Use License
- Ongoing research and evaluation of BALLOT*safe* for each election cycle

• Generation of Election Analysis and Assessment Reports (EAAR) after major elections

# 3.2.2.3. Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage which provides for the broadest impact to voters and election officials. Some advanced concepts which will provide greater impact to voters are:

- Sample Ballot The sample ballot feature of BALLOT*safe* allows voters the opportunity to access the jurisdiction's sample ballot before the election. Through the election official's interface, officials are allowed to publish campaign statements from candidates as well as additional information that will be available to voters in the sample ballot.
- News Feed BALLOT*safe* provides specific news feed to voters. The news feed is provided in a sidebar of the voter web site and includes news events generated by the local election official. As desired, the news feed may also be linked to FVAP or the jurisdiction's social media feeds.
- Accessibility BALLOT*safe* has been purposefully constructed to be in compliance with the applicable web accessibility standards and to provide an intuitive interaction when being understood or controlled through personal assistive devices. Below are the usability and accessibility standards which BALLOT*safe* follows:
  - Web Content Accessibility Guidelines (WCAG) 2.0
  - o User Agent Accessibility Guidelines (UAAG) 1.0
  - Section 508 of the US Rehabilitation Act, Web-based Intranet and Internet Information and Applications (1194.22)
  - NIST Accessibility and Usability Considerations of Remote Voting Systems, Draft – June 28, 2010

# 3.2.2.4. Strategic approach

The Guam Election Commission has presented a credible hypothesis and will provide a welldefined and appropriate plan to test that hypothesis. The plan is further defined in 3.3 Schedule and Milestones and the Management Approach, Section 4. We believe the hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

# 3.2.2.5. Innovation

The USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The Guam Election Commission believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of BALLOT*safe*:

• Security. The groundbreaking cryptographic protocols inherent in BALLOT*safe* provide elections with the highest levels of security, in terms of voter's privacy, voter verifiability, election integrity, system availability, and access control. BALLOT*safe* provides security through the use of a physically secure data center, complete redundancy

of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.

- Ballot Choice Barcode. BALLOT*safe* provides accurate and reliable automated remake of returned ballots with its ballot choice barcode feature. Using a barcode on a ballot generated through the voter's onscreen marking wizard, the ballot choice barcode can replicate the voter's selections onto the local jurisdictions optical scan readable ballot.
- Social Media Interaction. BALLOT*safe* provides mechanisms for the voter to interact with social media content (Facebook, Twitter, etc) through BALLOT*safe*. This is done through multiple concepts such as a Newsfeed and interactive sample ballots.
- FPCA barcode. BALLOT*safe* provides a feature whereby the voter can complete an FPCA through the BALLOT*safe* FPCA wizard with an absentee data barcode. This barcode provides for the automated exchange of the voter's information from the FPCA through an FPCA import module, and into the local voter registration processing queue. This reduces the need to manually enter voter information.
- UOCAVA community forum. With BALLOT*safe*, ES&S and Scytl have established and will maintain a pipeline of ideas, techniques and best practices of election officials and their services for UOCAVA voters. This is done through a secure online data repository and message board.

# 3.2.2.6. Scalability

The USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGi. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of:

- Usage increases in the number of voters and number of ballots styles it can support;
- Impact changes to and increases in the types of voters and their requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality which it employs.

Furthermore, our agreement with ES&S and Scytl is to obtain all of the existing features and functionality of BALLOT*safe* regardless of our current need. With the ability to access and use features on an as needed basis thereafter, we are able to adjust our growth and use of the product in such a way that we can meet the demands of tomorrow as easily as the demands of today.

# 3.2.2.7. Collaborative

The Guam Election Commission has designed the USE Program to be a collaborative program involving key election technology providers – ES&S and Scytl, reputable academic researchers from Cal Tech University and University of Utah, and other election jurisdictions through a data and experience sharing portal in BALLOT*safe*. This consortium of election officials, election service and system providers, and researchers will collaborate together to address and improve the absentee voting process. To do this, we will use a six-sigma approach to improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current processes based upon data analysis to create an improved, future state process.
- *Control* the future state process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

# 3.2.2.8. Cost Benefit Analysis

Each major component of BALLOTsafe can separately, or in total, be evaluated for ROI against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

# 3.2.3. Security Measures

The USE Program will provide administrative, technical, and physical controls to protect voter personal identifying information (PII) and sensitive election material. At a minimum, **administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by ES&S and Scytl through the BALLOT*safe* solution. First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls and where it is under 24/7 physical and application monitoring to ensure the security, health and integrity of the system around the clock. The infrastructure, including all hardware, software, and security controls are also monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software to be free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to seamlessly verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect voters' identifying information from ever being associated with their ballot selections.

# 3.3. Schedule and Milestones

The Guam Election Commission has identified the following as the initial schedule assuming an award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

# 1. Initiation and Planning Phase

Start Date: August 1, 2011 Duration: 45 days

The initiation and planning phase will initialize the project and introduce all stakeholders. During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown structure, statement of work with each sub-contractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

- a) Completion of Project Management Plan
- b) Completion of Quality Management Plan

# 2. Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

With the program stakeholders, this phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success in this area. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution amongst the stakeholders. The approach will lead into a detailed requirements gathering and specification development effort to capture the analysis into quantifiable measures necessary to improve the UOCAVA voting process. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of these will be addressed directly through BALLOT*safe* while others will be addressed through policy changes.

Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization

# 3. Technology Modernization

Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for the customization, activation, and outreach efforts in preparation for the first election and continuously through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase 2, BALLOT*safe* and other systems will be customized to address Guam's requirements such that UOCAVA voters are best supported.
- Voter Education During this phase, voters will be notified of the modernization and how it impacts them through multiple communication channels.
- Integration and Testing The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters.

Milestones:

- a) Technology Modernization Completion Presidential Preference Primary
- b) Technology Modernization Completion Primary Election
- c) Technology Modernization Completion General Election

# 4. Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the USE Program to enhance the technology and services provided to UOCAVA voters. Each progressive election will include greater enhancements to achieve the incremental goals established in phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental and overall goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan.

Milestones:

- a) Presidential Preference Primary Completion
- b) Completion of Election Analysis and Assessment Report Presidential Preference Primary
- c) Primary Election Completion
- d) Completion of Election Analysis and Assessment Report Primary Election
- e) General Election Completion
- f) Completion of Election Analysis and Assessment Report General Election

# 5. Final Analysis and Reporting

# Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase will collect the relevant data from the 2012 General Election(s) as well as reports and data from the previous elections. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of USE Program Final Report

# 3.4. Reports

# 1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Guam Election Commission will prepare quarterly programmatic and financial progress reports. For the purposes of the USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

The following programmatic and financial progress reports will be prepared:

- a. Fourth Quarter 2011 Programmatic and Financial Progress Reports
- b. First Quarter 2012 Programmatic and Financial Progress Reports
- c. Second Quarter 2012 Programmatic and Financial Progress Reports
- d. Third Quarter 2012 Programmatic and Financial Progress Reports
- e. Fourth Quarter 2012 Programmatic and Financial Progress Reports
- f. First Quarter 2013 Programmatic and Financial Progress Reports

# 2. Data collection points reports

There will be several data collection point reports prepared throughout the USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned
- Types and number of problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

- a. Presidential Preference Primary EAAR
- b. Primary Election EAAR
- c. General Election EAAR (will be incorporated in the Final Report)

# 3. Final Report

The USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

# 4. Management Approach

# 4.1. Introduction

The Guam Election Commission intends on using an organized project management methodology with ES&S and Scytl to achieve these goals in a sustainable and organized way. ES&S and Scytl have formed a strategic alliance to provide the necessary technology and tools to allow Guam to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, local election personnel, and election officials from other jurisdictions. This cooperative of the Guam Election Commission, election officials, election service and system providers, and researchers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved, future state process.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

# 4.2. Project Organization

# 4.2.1. Project Director

The Guam Election Commission will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

# 4.2.2. Project Steering Committee

The project steering committee will be comprised of the project director, project manager, key personnel from ES&S and Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with the strategic goals and objectives and key factors in Section 4.4.

# 4.2.3. Project Manager

Election Systems and Software (ES&S) will serve as project manager for the USE Program. ES&S maintains a global team of PMI certified Project Management Professionals and Elections Experts with specific experience in election solution implementations. The ES&S Project Management Office (PMO) has over 285 years of combined elections experience, which has allowed the PMO to develop election specific best practices to accommodate the unique and challenging aspects of the election industry. This team of professionals is trained to manage projects pursuant to the Project Management Institute's project management principles. Each Project Manager is supported by a team of Technical Engineers, Subject Matter Experts, and Support Specialists to assure that each aspect of the project is managed effectively and efficiently.

# 4.2.4. Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project manager and will be responsible for data collection and analysis. The research team will form hypotheses and will report findings. All research products will be validated with the steering committee which will prepare the conclusions.

# 4.3. Project Resources

# 4.3.1. ES&S

ES&S and Scytl will work collaboratively to leverage the strengths of each company for the purpose of installing and supporting the BALLOT*safe* system. Specifically, ES&S will provide development expertise in the areas of system integration for voter registration and election management systems. The ES&S training department will provide instructional information and facilitate training activities. The ES&S support group will install and coordinate the usage of BALLOT*safe* with Scytl subject matter experts. The ES&S Helpdesk will provide 1<sup>st</sup> and 2<sup>nd</sup> tier level support to the State and local election officials and ES&S and Scytl will work jointly to provide any 3<sup>rd</sup> tier level support required.

# 4.3.2. Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the USE Program, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department.

# 4.3.3. Academic Researchers

The USE Program will utilize outside academic researchers – Michael Alvarez and Thad Hall – for some of the research and analysis efforts. In their academic careers, they have focused on elections, voting behavior, election technology, and research methodologies. The Guam Election Commission believes that the addition of these experts will enhance the quality of the program's research and assist in tackling some of the prevalent challenges facing democratic elections.

# 4.4. Project Strategic Goals

The UOCAVA System Enhancement Research (USE) Program will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

# **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.
- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), Guam will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

**Plan:** Implement tools and services provided by ES&S and Scytl in a phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving Guam's capabilities to support our overseas voter population.

# 4.5. Research Methodology

The USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

# 4.5.1. Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis, considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

# 4.5.2. Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies to better meet their needs. As a starting point, the Guam Election Commission knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens who are located in remote locations. In addition, although active duty military members complete Federal

Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, Guam citizens are likely to experience widely divergent voting experiences depending upon their country of residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries also varies widely. The aforementioned are but a few of the well known challenges faced by our overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

# 4.5.3. Technology Enhancements

While Guam is already aware of many areas where BALLOT*safe* can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of Guam's voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT <i>safe</i> will work in coordination with online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on time.
Absentee Ballot Request	BALLOT <i>safe</i> will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT <i>safe</i> to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.	Traditional postal delivery and return of ballot requests introduce unpredictable delays into the process which delay future steps. Voters can often forget when a ballot request is due for an election or may complete it incorrectly.	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them correctly.
Absentee Ballot Delivery	BALLOT <i>safe</i> will provide online ballot delivery of precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot	Traditional postal delivery of ballots is lengthy and unpredictable. It is	The electronic delivery of ballots through a secure internet based portal

	availability. To assist in the ballot delivery, the BALLOT <i>safe</i> online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	consistent access to
Absentee Ballot Marking	BALLOTsafe will provide an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write- ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.	Some absentee voters have difficulty understanding ballot content and completing ballots correctly. Voters with disabilities face significant problems marking paper ballots. Furthermore, manual duplication is often required of ballots which are returned. When a voter uses the onscreen marking wizard, BALLOTsafe provides a mechanism for the automated replication onto an optical scan ballot.	intuitive and
Absentee Ballot Return and Tabulation	BALLOTsafe will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOTsafe will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assist in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately upon processing through BALLOTsafe and through email notifications.	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their ballot is returned and if it was accepted. Furthermore, without automated interfaces, there are delays in the processing and tracking of ballots.	electronic portal to provide correct return information and return documents will improve the ease and rate of successful return of ballots. Automated interfaces and the use of barcodes will shorten

# 4.6. Performance Management

# 4.6.1. Performance Management Approach

To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the USE Program goal and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- To manage the project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 4.4. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

# 4.6.2. Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success
Improve the rate of completed UOCAVA voting transactions from registration to ballot return.	At each step in the absentee voting process, the number of voters who complete each phase of the process increases. This will be measured on a per election basis, comparing previous election of that type to the current election. For example, the 2012 Primary Election will be compared with the 2008 Primary Election.
Increase the percentage of UOCAVA voters participating and voting in Federal elections.	For each Federal Election, there is an increase in percentage of UOCAVA voters who participate in at least one portion of the voting process.
Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.	Based on a comparison of the average failure rates for each stage in the absentee voting process with the failure rates of the current election, there is a decrease in the failure rate in each stage.
Provide tools and services that can benefit other jurisdictions.	The solution provided supports the legal, procedural, and technical requirements of other jurisdictions.

Provide security measures to protect users' personal identifying information and any transmitted election material.	Data collected through system audit logs, internal auditing, and interactions with voters does not indicate that any user's personal identifying information or sensitive election material was compromised in any way.
Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives	the objectives above.

# 4.7. Risk Management

# 4.7.1. Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- Risk identification. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis**. Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- Commence at the Project planning stage, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

- **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.
- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - The risk owner who is the person responsible for managing the response plan
  - o The risk response strategy that will be used
  - The description of the mitigation or contingency plan
  - Any stakeholders impacted by the risk
  - The cost of the risk response
- **Risk Mitigation plans**: This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

# 4.7.2. Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated against.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- e. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

4.8. Current and pending project proposal submissions

NONE

# 5. Qualifications - Key personnel and consultants

# Maria Pangelinan

Received her B.B.A. from Loyola Marymount University, and her M.B.A. from California State University, Dominguez Hills. She has taught at the University of Guam since 1993, and still teaches part-time in the School of Business and Public Administration. Most recently, she was at the Guam Legislature working on special projects including the reconstruction and restoration of the historical Guam Legislature building. She brings to the Guam Election Commission organizational and leadership skills from over thirty years of managerial experience in both public and private sector, to promote participation in fair and accurate elections

# Thomas H. Ferguson, National Sales Director, Electronic Ballot Access, Election Systems and Software

Thomas Ferguson is currently serving as the National Sales Director, Electronic Ballot Access and an Election Product Specialist for ES&S. He has approximately ten years of government management experience as the Director of Elections for the Office of the Secretary of the State of Connecticut. Prior to taking the position with the state, Mr. Ferguson served as the Registrar of Voters for the Town of Manchester, Connecticut for six years. Additionally, he is a pastpresident of the National Association of State Election Directors. During his tenure with the Secretary of the State, he was the Project Manager for the development and implementation of the Statewide, Centralized Voter Registration System. Mr. Ferguson was also the Project Manager for the development of Connecticut's browser based Campaign Finance Information System, as well as systems that house and manage the Connecticut's chief polling place officials. He has an extensive elections and project management background from his 25 years of work and experience in local and state elections.

# Peter M Zelechoski, MBA-TM, CISSP, CISA, Election Systems & Software

Mr. Zelechoski has 9 years experience in the voting systems business sector with experience at county and state levels (US) and in international countries defining, customizing, and deploying voting systems, and operating voting systems/machines in elections. Mr. Zelechoski has experience as president, board, committee chair and committee member levels for large and small non-profit and not-for-profit groups. With 30+ years experience in computer systems, he has hands-on experience with data interchange in financial, business, and election applications and as an architect for computer systems integration across platforms, networks, security boundaries. Mr. Zelechoski is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), a member of IEEE P1622 Voting Systems Electronic Data Interchange standards workgroup, and a member OASIS EML task group (Election Markup Language). He has a Master of Business Administration in Technology Management.

# Paul Miller, Business Development Manager, Scytl USA, LLC

Mr. Paul A. Miller, a former State and County Elections Official, is a highly qualified Project Manager, Elections Subject Matter Expert, and Technologist with more than 30 years'+ experience in technology and software development industries, foremost being in State and County Government Elections. He has been called upon by the EAC time and again, to provide Election Subject Matter expertise to panels, workshops, working committees, and testimony before the EAC commissioners. He was selected by the National Association of State Elections Directors (NASED) to serve as one of two NASED representatives to the Technical Guideline Development Committee (TGDC). The TGDC is a small panel of national experts tasked to work with the EAC and NIST to draft next generation voting systems standards.

Mr. Miller's election related experience has made him a nationally known subject matter expert within the elections community. Beginning with his tenure as Assistant Elections Superintendent-Data Processing in King County to Senior Technology/Policy Analyst at the Washington Secretary of State, he has gained a comprehensive knowledge of County Administrative Processes, Election Processes and Procedures, State and local Voter Registration Databases, Voting Systems, State Certification procedures, the Federal Testing and Certification Processes, Voluntary Voting System Guidelines and Federal and State Election Statutes. He has led innovative changes to county elections processes, most notably the most extensive use of its day in the nation of high-speed scanning to sort, process, and validate signatures in the absentee return ballot processes. He led the state's efforts to completely modernize its petition/signature checking processes, upgrade its voting system certification program in a high-visibility environment, and develop the state's HAVA- compliant Voter Registration System.

After being the state project manager for the 2010 implementation of U.S. Federal Voting Assistance Program's Electronic Voting System Wizard project in Washington state, Mr. Miller joined Scytl as Business Development Manager in April 2011.

# Aaron Wilson, Project Engineer, Scytl USA, LLC

Mr. Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

# Thad E. Hall, Ph.D. (Researcher)

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* (Princeton University Press) and *Abortion Politics in Congress: Strategic Incrementalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

# R. Michael Alvarez, Ph.D (Researcher)

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, *New Faces, New Voices: The Hispanic Electorate in America*) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal *Political Analysis*, and co-director of the Caltech/MIT Voting Technology Project.

# 5.1 Budget Proposal

# 5.1 Itemized Budget

**Territory of Guam Price Proposal** - Under the USE program, BALLOT*safe* will be offered by ES&S-SCYTL as a software as a service (SaaS) model in order to facilitate its adoption and use by jurisdictions across the United States and its territories in a cost effective manner. This model has several price components: Activation and Implementation Services Fees, Annual Right-To-Use License and Service Fees during the Research Program, and ongoing Right-To-Use License Fees and Per Ballot Processing Fees after the Research Program is completed.

For the initial Research Program, which includes the 2012 Election Cycle, the following deliverables will be provided:

Activation and Implementation Services	Software License and Services - 2012
System Activation & Initial configuration	Right-to-use license of BALLOT <i>safe</i>
Definition of specifications	Election Specific System Configuration

Customization to meet specifications Installation and deployment Integration with existing EMS Integration with existing VR Training & Documentation Project management	Secure Primary and Backup Hosting Help-desk / Technical Support Enhancements, New Releases & Upgrades Account Management
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# Budgetary Quote for the participation in the USE Research Program

The budgetary quote to the Territory of Guam for the participation in the USE Research Program is \$109,143.75, as set forth in the table below. This budgetary quote includes the Activation and Implementation Services and Annual Right-To-Use License and Service Fees through the 2012 General Election Year.

Description	Fee				
Activation and Implementation Services:					
Activation, Configuration, Customization, and Documentation	\$37,975.00				
System Integration	\$15,000.00				
Acceptance Testing	\$3,500.00				
Remote Project Management and Research Support Training in Omaha, Nebraska for up to Three (3)	\$15,375.00				
Persons. Price includes travel expenses of up to \$4,000.00 per person.	\$15,150.00				
Total Activation and Implementation Services	\$87,000.00				
Software License and Services – 2012: Right-to-use license of BALLOT <i>safe</i> , Secure Primary and Backup Hosting, Help Desk/Technical Support, Software Maintenance and Support for all elections through Nov 2012	\$7,618.75				
Remote Account Management and Research Data Support	\$11,375.00				
Election Specific System Configuration	\$3,150.00				
Total Annual License Fees and Services - 2012	\$22,143.75				
Total Fees	\$109,143.75				

# **Ongoing Fees**

Following the conclusion of the Research Program, Ballot*Safe* is available for use in supporting UOCAVA voters, as well as disabled voters and absentee-by-mail voters. The ongoing Annual Software License and Service Fees will consist of a fixed price per year and a per ballot processing/duplication fee as follows.

Description	UOM	2013	2014	2015	2016
Annual Right-To-Use Software License & Remote Account Management and Research Data Support	License	\$19,843.75	\$20,837.00	\$20,837.00	\$21,880.00
					-
Outgoing Ballot Processing Fee	Each	\$1.00	\$1.05	\$1.05	\$1.10
Incoming Ballot Processing Fee	Each	\$0.25	\$0.26	\$0.26	\$0.27
Automatic Ballot Duplication Fee	Each	\$0.75	\$0.79	\$0.79	\$0.83

# The above fees entitle the State to the following:

- Right-To-Use License
- Upgrades and Enhancements from Product Roadmap and Bug Fixes
- Help Desk & Troubleshooting Support
- Primary and Backup Secure Hosting
- Remote Research Data and Support
- Remote Account Management

Should the Territory of Guam require additional Training, Election Specific System Configuration, or other Services not included in the Ongoing Fees table above, those services will be subject to a separate charge to be agreed to by the parties.

# **Total Fixed Fees**

The total fixed fees budgetary quote (excluding Ballot Processing/Duplication Fees) to the Territory of Guam for participation in the USE research program through the 2016 General Election Year is \$192,541.50. It is our understanding that all years through 2016 may be funded by the EASE grant program sponsored by FVAP. Should the Territory of Guam receive 100% funding for the fixed fees of \$192,541.50 and the Ballot Processing/Duplication Fees as calculated by the Territory of Guam there would be no additional State Funds required for this program other than those required as a result of underestimating the Ballot Processing/Duplication Fees.

**5.2 ROI** for \$192,541.50 Fixed Fees portion = (74%) based on the estimated current 500 eligible UOCAVA voters increasing to 750

# 6. Budget Proposal

5.1 Itemized Budget: **\$275,328.50** (\$82,787 + \$192,541.50)

5.1.1 The Guam Election Commission will add one (1) full time staff to administer the implementation of this project from September 2011 thru December 2012. Two current

employees of the Guam Election Commission will devote 20% of their time to this project. The fully burdened internal cost for one staff member plus the cost of other Guam Election Commission full-time employees who will devote 20% of their time to this project will be will be \$66,787. USD total for the 16 months of work. In order to optimize the capacity of these employees, computers, software, network, and digital communication, and technology services are required for a total of \$16,000.

5.2. Was the quote

#### THE HARRIS COUNTY ELECTRONIC ABSENTEE SYSTEMS FOR ELECTIONS (EASE) TECHNICAL PROPOSAL COVER PAGE

- 1) <u>Catalog of Federal Domestic Assistance (CFDA) Number:</u> 12,217
- 2) <u>BAA Number:</u> HQ0034-FVAP-11-BAA-0001.
- <u>Title of Proposal:</u> The HARRIS County Electronic Absentee Systems for Elections Program.
- 4) <u>CAGE Code and DUNS Number:</u> (b)(4)
- 5) Identity of applicant and complete list of contractors, and/or sub recipients: The applicant is Harris County Commissioners Court on behalf of the Harris County Clerk's Elections Department. The EASE Project will be almost entirely subcontracted with funding awarded through an open, transparent process.
- 6) <u>Technical Contact:</u> Mr. Jason Williams Director of Information Technologies 301 Caroline, Suite 400 Houston, Texas 77002 713-755-6434 jbwilliams@cco.hctx.net
- Administrative/Business Contact: Ms. Sonya L. Aston Assistant Administrator of Elections 1001 Preston Street, Suite 400 Houston, Texas 77002 713-755-5792 saston@cco.hctx.net
- 8) <u>Proposed Period of Performance:</u> October 1, 2011 – June 30, 2012

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# Harris County, Texas County Clerk, Elections Division

#### Electronic Absentee Systems for Elections (EASE) Grants For States, Territories and Localities Solicitation number HQ0034-FVAP-11-BAA-0001

### **Technical Approach**

#### **Executive Summary**

Harris County, Texas has close to two million registered voters in the most populous county in Texas and the third most populous in the nation. Harris County has a very diverse global economy that continually has registered voters working and traveling around the world. Additionally, there is a significant military community that has been deployed overseas as well as in the United States outside of Texas. There are even registered voters working in outer space during elections. Every year there are approximately 10,000 military and overseas ballots sent out during an election. Harris County Clerk's Office continually strives to provide excellent customer service for Harris County voters while maintaining confidentiality, security and integrity in the election process.

With the advent of the internet, many modern day processes are achievable electronically. However, to date, processing the federal postcard applications electronically has not been sufficiently developed. Our office has worked tireless to provide the correct ballot to those voters overseas. This is a very labor intensive process, and due to detail-oriented employees, the process has resulted in very few reported failures. It is the desire of the Harris County Clerk's Election Division to automate as much as possible the e-mail federal postcard application and ballot process.

Harris County is seeking \$512,131.96, in order to purchase equipment and subcontract with a programming company to develop and implement a user-friendly automated and efficient absentee voting system for overseas voters from Harris County. This program will necessitate travel, training, and supplies to implement.

E-mail was used for the first time to deliver ballots from Harris County to overseas voters in November of 2010. The return rate for the e-mail ballots for military overseas was almost 4 times higher than mailed ballots to military overseas and the return rate for civilian overseas was double that of the mailed ballots.

### Goals and Objectives

The Goal of the Harris County EASE Program is as follows:

• Improve the voting experience of UOCAVA voters, reduce voting impediments faced by them, and stimulate the development of innovative approaches to absentee voting by UOCAVA voters.

The Objectives of the Harris County EASE Program are as follows:

- Establish and operate a successful, sustainable, and affordable electronic system for voting by Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) voters;
- Increase the percentage of ballots that are successfully returned by UOCAVA voters;
- Improve the convenience of voting;
- Reduce the failure rates of UOCAVA voters experienced in each stage of the absentee voting process (such as voter registration, absentee ballot request, blank absentee ballot delivery, absentee ballot marking, absentee ballot tabulation, and absentee ballot return verification) specific to Harris County; and,
- Provide the Department of Defense a model and infrastructure of UOCAVA voting that can be replicated regionally and nationally.
- Ensure security measures are instituted to protect users' personal identifying information and any transmitted election material.

The Harris County EASE program will be designed to be accessible and efficient as allowed by law for the UOCAVA voter. Presently, the UOCAVA voter may contact the office through phone, mail, fax and e-mail. The application may be received by fax, mail or e-mail. The Ballot can only be received by mail unless the voter is in a war zone. If the voter is in a war zone, the voter may fax to the Department of Defense who in turn faxes the ballot to Harris County. The Harris County EASE program will allow all UOCAVA voters to register to vote, apply for a ballot, request a sample ballot, download a ballot, mark the ballot online, have the voter's selections recorded securely by a unique identifier such as a bar code, track the progress of the voter's transactions.

There are a number of processes that can be developed by Harris County's dedicated staff and its current vendor, Votec; however, the majority of the heavy programming will need to be conducted by a subcontractor to Harris County Clerk's Elections Division.

#### Significance

Feature	Benefit
Tracking the registration and ballot	User-friendly information will be available to the
processing procedure	UOCAVA voter online
Online Voter Registration	Automatic update to the Voter Registration Database,
_	VEMACS which can be programed to automatically
	communicate to the voter via e-mail or mail as directed by

	the voter.
Online Voter Information Update	Voters will be able to update their records and ensure that
	their address information is correct and thereby reducing
	the amount of undeliverable mail.
Online Ballot Application	Automatic recordation of ballot application in VEMACS
	which will generate confirmation e-mail one week prior to
	mailing the ballot. Secure automatic ballot delivery as
	directed by Harris County Elections Division.
Automatic Ballot Duplication	Capture ballot selections by voter online in a secure coded
	method that will allow the County to immediately access
	voter's selections from the mailed in ballot and print out
	the ballot in a County-compatible format to be processed.
	Human error will be reduced.

## Sustainable

Feature	Benefit
Tracking System	• Harris County will be able to monitor and evaluate the process and determine where the vulnerabilities of the process are the greatest so that these vulnerabilities can be addressed and further create a user-friendly online system for the UOCAVA voter.
Harris County controlled server	<ul> <li>Maintain security of the process and ballot selection information.</li> <li>Reduce annual fees</li> </ul>
Standard equipment that can be used by any jurisdiction	<ul> <li>Equipment will not be specialized; therefore, easily maintained and updated as technology develops.</li> <li>Reduce need to update equipment or go through expense certification process.</li> <li>Other jurisdictions will be able to use the same equipment without being locked into a particular vendor.</li> </ul>

# Impact

Feature	Benefit
Tracking System	Will increase the confidence of the UOCAVA voter.
Online Voter Registration	The ease of registration will positively impact the ability
_	for UOCAVA eligible applicants to register in Harris
	County and result in an increase of applicants.
Online Voter Information Update	Will reduce the number of ballots that are returned as
	undeliverable by at least 10% progressively each election
	as more voters become aware of the process.
Online Ballot Application	• Will create a means for Harris County Elections
	Division to notify the voter of the ballot to be received

	<ul> <li>within a certain time frame, keeping the voter engaged.</li> <li>Ease of accessibility will increase the number of voters to request a ballot</li> </ul>
Automatic Ballot Duplication	<ul> <li>Reduce human error</li> <li>Speed up the process</li> <li>Allow more ballots to be processed by the same number of employees</li> </ul>

# Strategic Approach

Feature	Benefit
Tracking System	Due to the cumbersome process and length of time,
	UOCAVA may not have the faith in the system as the
	system deserves. However, being able to track the process
	will increase the confidence that the UOCAVA voter will
	have in the system and generally benefit participation of
	the UOCAVA. Statistics for the 2008 and 2010 elections
	will set the benchmark for evaluating the benefits of the
	Harris County EASE program.
Online Voter Registration	UOCAVA applicants will be able to register closer to the
	time of the election without concern of not being counted.
Online Ballot Application	The Ballots will arrive faster and allow more time for the
	voter to research the candidates and return the ballot by
	mail.
Automatic Ballot Duplication	Less human error and ability to process the increase in
	ballots that are expected.

## Innovation

Feature	Benefit
Online processes	Increase availability to UOCAVA voter
	Ballot errors reduced
	Increased confidence in the system
Automatic Ballot Duplication	The use of a unique identifying code that records the ballot
	selection securely will speed up the process significantly.

# Scalability

Feature	Benefit
All eligible UOCAVA voters from Harris County will have access to the program.	• With more users, the automated process will accommodate more voters
The system will be designed to be adaptable by other Texas	• Increase in the participation of UOCAVA eligible voters

jurisdictions	

*Collaborative* - Harris County is a leader in the state and the nation in operating elections in the United States and has readily shared information and processes as appropriate.

Feature	Benefit
Development of Tracking System	Allows Harris County Elections Division to evaluate the benefits of the program and share the information with Texas Counties and the Secretary of State
Development of Online Participation	<ul> <li>Once the program has been developed, the program can be made available to any jurisdiction.</li> <li>Harris County will meet with other jurisdictions to raise any issues that need to be addressed</li> <li>Harris County is a leader in Texas as well as the nation on Elections and will share the information that is generated.</li> </ul>
Automatic Ballot Duplication	<ul> <li>Once the program has been developed, the program can be made available to any jurisdiction.</li> <li>Harris County will meet with other jurisdictions to raise any issues that need to be addressed</li> <li>Harris County is a leader in Texas as well as the nation on Elections and will share the information that is generated.</li> </ul>

#### Cost Benefit Analysis

Feature	Benefit
Tracking	Reduce employees hours spent responding to queries
Online Participation	• Reduce employee hours spent responding to individual requests and individually selecting ballots
	Increase participation by UOCAVA voters
Automatic Duplication	Reduce employee hours spent duplicating ballots

The procured system will also offer two sets of functionality: one for the Harris County Elections Division and one for the UOCAVA voter.

For the Elections Division:

- There will be a "back office" website. It will be a secure portal for election and voter management as well as a tool for generating reports and statistics. The service provider will train the Elections Division on how to maneuver through this portal.
- Ballots will be created electronically.
- A voter management module will allow the Elections Division to synchronize the list of eligible voters with the list of maintained registered voters.

For the UOCAVA voter:

- There will be on-screen marking capabilities which ensure that voter error is reduced.
- There will be a bar code on absentee ballot envelopes.
- Voter fraud will be reduced by authenticating email addresses and unique serial numbers.
- A "news feed" will provide UOCAVA voters with information on an as needed basis.
- A ballot return tracking system that allows the UOCAVA voter to track the status of the mailed ballot.
- There will be a "Frequently Asked Questions" (FAQ) hyperlink.
- Sample ballots will be made available online.

## Current versus Proposed Failure Rates:

Overseas voters have a much harder time casting ballots successfully than those individuals who reside in the community and are usually walking distance from their polling location. During the last Gubernatorial election (November, 2010), for example, there were 9,204 Federal Post Card Applications (FPCAs) requested. All were mailed. However, 2,037 (22%) were sent to an address that was "undeliverable" for Harris County residents compared to less than one percent for undelivered mail-in ballots sent in Harris County. Only 2,108 (23%) of the overseas Harris County ballots were actually returned successfully.

The Harris County EASE has the potential to double the number of ballots that are successfully returned and cast. Instead of using "snail mail" to deliver ballots overseas and having 23% be returned to the sender, those 77% who were not able to have their vote counted would simply log onto their nearest computer and download the ballot off the internet.

The Harris County EASE Program also has the potential to expedite the process of requesting a ballot. Currently, overseas voters receive a hard copy ballot in the mail. This process can sometimes take up to two weeks. Under the Harris County EASE Program, the ballot can be sent to the overseas voter electronically thereby reducing the time it takes to get to the voter.

## Security Measures to Protect Ballot Integrity:

The Harris County EASE Program will include a feature that allows for ballots to be marked electronically prior to being printed. This will allow for voter intent to be very clear from the Elections Department point of view and will prevent issues analogous to "hanging chads."

Moreover, there will be safeguards to ensure "one person, one vote." Specifically, each voter's ballot will have a unique serial number/bar code that is not only electronic, but on the printed ballot itself.

# Schedule and Milestones

The Harris County EASE development project will begin September 1, 2011 (assuming the grant money is made available by that time).

Key Activity (What?)	Timeframe (When?)	Responsible Party (Who?)	Progress Report
Grant Award.	9/1/11	Department of Defense (DoD)	Quarterly Reports.
Hire Systems Programmer.	10/1/11	John German, Harris County Administrator of Elections	n/a.
Post Request for Proposal (RFP) for Subcontractor of UOCAVA System.	11/1/11	Harris County Purchasing Department	n/a.
Award UOCAVA System Subcontract.	12/1/11	Harris County Purchasing Department	n/a.
Strategic Planning Orientation - Kickoff Meeting. - Job Specification. Implementation Plan and Timetable.	12/15/11 – 1/15/12	John German, Harris County	Report to DoD on 2/1/12.
<ul> <li>Build the System <ul> <li>Harris County Delivers</li> <li>Ballot Data.</li> <li>Harris County Delivers</li> <li>Voter Registration Data.</li> <li>Draft Election Built.</li> <li>Draft Voter Registration</li> <li>Credentials Loaded.</li> <li>Test the System.</li> </ul> </li> </ul>	1/15/12 – 2/1/12	Votec (Harris County current Voter Registration and Election database contractor) and Subcontractor	Report to DoD on 2/15/12.
Primary Election Timetable (including runoff).	2/1/12 - 4/1/12	John German, Harris County	Report to DoD on 4/15/12.
General Election Timetable.	10/1/12 – 12/1/12	John German, Harris County	Report to DoD on 12/15/12.
Final Report to DoD.	1/15/13	John German, Harris County	Report to DoD on 1/15/13.
Post Election Support.	1/15/13 – 1/15/17	Subcontractor	n/a.

# Reports

The prospective vendor will be asked to comply with a schedule of reports that is determined by the Department of Defense (DoD). These reports will be submitted to the Harris County Elections Division and will be submitted by the Elections Division to the DoD. The reports will be based on milestones, reduction in failure rates of UOCAVA voters in the various stages of the absentee voting process, and other relevant data. These reports will be of four major types:

Type of Report	Timeframe
Programmatic and Financial Progress Reports.	Quarterly.
Data Collection Points Reports.	Post Primary Election and
Number of UOCAVA Visitors to the Website.	General Election.
Number of Ballots Downloaded.	
<ul> <li>Delivery Method Requested/Downloaded.</li> </ul>	
Final Report	Post Grant Period.
Significance.	
<ul> <li>Sustainability.</li> </ul>	
• Impact.	
Strategic Approach.	
Innovation.	
Scalability.	
Collaboration.	
Cost/Benefit.	
Standard Reports that are currently sent to the U.S. Elections	Post Primary Election and
Assistance Commission and the Texas Secretary of State.	General Election.

# Management Approach

### Key personnel:

Internal Personnel: The Harris County Elections Division will oversee the project utilizing their professionals, processes, equipment, significant knowledge and infrastructure. Participating parties will include the Harris County Clerk's ITC Division, Harris County's ITC Department, the Harris County Tax Assessor-Collector, Votec, the Texas Secretary of State.

The Harris County Elections Division is led by Mr. John German who has served Harris County for over 40 years and 9 years as the Administrator of Elections. Prior to work as Administrator, Mr. German oversaw the Information Technology Department for the Harris County Clerk, honing his significant technical skills. Recently, Mr. German led the Elections Division to success after overcoming a devastating fire that destroyed all voting equipment for Harris County 67 days before the November 2010 election.

Harris County Employee	Title	Skills
Stan Stanart	County Clerk	Elected Official – oversight,
		technical skills
John German	County Clerk Elections	Department Head –
	Division - Administrator of	oversight, technical skills – 9
	Elections	years
Jason Williams	County Clerk -	
Sonya Aston	County Clerk Elections	Assistant Department Head -
	Division - Assistant	4 years Voter Registration,
	Administrator of Elections	Attorney
Jennifer Ballard	County Clerk Elections	Manager of Overseas Ballot
	Division	Process and Ballot By Mail
Tom Moon	Tax Assessor-Collector -	Department Head – technical
	Voter Registration – Director	skills
	of Voter Registration	

External Personnel: Harris County will identify a programming consultant to participate substantially in the larger projects through an open and transparent process. Additionally military overseas voters, civilian overseas voters, military organizations, consulate offices, political parties, and election officials from other jurisdictions will be consulted to provide the most efficient and effective product.

#### Past, Present, or Proposed Collaborative Activities with other Institutions/Entities

Harris County Clerk's Elections Division has been a leader in the state and in the nation in developing and using electronic voting machines. Harris County's vendor, HART InterCivic has worked closely with and frankly depended on Harris County to troubleshoot and develop solutions for issues that arose due to the sheer volume of polling locations and ballot styles.

Harris County always works closely with the Secretary of State to develop policies that work for any population size of a county. In the Fall of 2010, Harris County experienced a devastating fire that destroyed every single piece of equipment in the Elections Department. Due to the close working relationship that Harris County has with all of the counties in Texas, equipment, support and well wishes flooded Harris County. Against all odds, the November 2010 Election was fully staffed and equipped and was successfully executed. Harris County's success can be attributed to:

- The necessity to manage elections for close to 2 million registered voters in over 850 election precincts with one of the largest ballots in the nation,
- The necessity to provide election materials in three different languages,
- The technological support that is included in the Elections Division and the County Clerk's ITC Division,
- The desire of the leadership of Harris County to be on the forefront of providing the best and most secure methods of voting to Harris County,
- The international work force in Harris County brings many ideas and concerns from around the world and Harris County responds to those concerns to provide a fair and secure election process.
- The Elections Division has highly trained employees who attend the Secretary of State programs regularly, as well as having a CERA Certified employee, attorney.

## Strategic Goals

The initial strategic goal of the Harris County Elections Division is to enhance service to UOCAVA voters in a cost-effective, collaborative, and sustainable manner by automating the processes through database programming, web technologies and internet access. Harris County Elections Division's goal is to reduce the number of outdated addresses and increase the amount of automation in the process.

Simultaneously, Harris County Elections Division will use the same technology to address the mail-in ballot process for voters residing in Harris County or temporarily outside of Harris County.

#### Methodology of Approach

The Harris County Elections Division will work with various stakeholders to design a multiphase program.

The tracking portion will allow the UOCAVA voter to monitor the progress of their application, their ballot delivery, ballot receipt and ballot process. This system will also allow the Harris County Elections Division to monitor the process of applications coming in and ballots being delivered and returned, a useful managerial and statistical tool.

Working with Voter Registration, the Harris County Elections Division plans to design a program that will automatically populate the existing Voter Registration database from the receipt of electronic voter registration documents from UOCAVA voters. Once in the database,

the ballot style will be determined and eventually automatically delivered to the UOCAVA voter. The database will also be used to send e-mail and/or mail to the UOCAVA voters to communicate any necessary information.

The Online Voter Address update will be a simple vehicle to allow UOCAVA voters to update their address electronically and thereby decreasing the undeliverable rate.

The Online Ballot will allow UOCAVA voters to make their selections online and then print out the ballot to be mailed back to Harris County. The electronic version will be easier to read and duplicate, reducing human error.

Automatic Duplication can be achieved by adding a bar code or some other technology to hold the UOCAVA voter's selection. Once the ballot is received in the mail, the Harris County Elections Division employee will be able to merely scan the bar code and immediately duplicate the ballot. There will still be the necessity of a team of two persons reviewing the mailed in ballot and the computer generated ballot to ensure consistency.

The Harris County Elections Division will approach the goals of the UOCAVA voter for this grant by

- Identifying the following
  - o Labor intensive portions of the process
  - Low response factors from the UOCAVA voters compared the general electorate
  - High costs of the FPCA process
- Gathering data to benchmark the following
  - Labor intensive portions of the process
  - o Low response factors from the UOCAVA voters compared the general electorate
  - o High costs of the FPCA process
- Developing plan of improvement
  - o Working with current vendor Votec
  - Working with vendor to be announced
  - o Consulting with stakeholders for input
- Execute the plan of improvement
  - Working with vendors to implement the plan
- Assess progress on a monthly basis
- Develop long-term solutions through the execution of the improvement plan

The Harris County Elections Division will begin the program as soon as possible to have as much of the programming and development completed by January to be used in the March 2012 Primary Elections. This election will be the testing waters for the November 2012 Presidential Election.

### Definition and Formalization of the Applicants Strategic Goals

The Harris County Elections Division will pursue strategic goals via multiple channels as defined below:

- 1. Tracking system: this will be an affordable, sustainable electronic tool to improve the voting system. In addition to the benefits to the UOCAVA voter, the Election Division will gain easily accessible valuable statistical analysis reporting.
- 2. Voter registration: integration of FPCA processes with existing voter registration databases to generate automatic responses, both e-mail and postal mail, to the application process. This portion of the program is designed to increase UOCAVA voter turnout;
- **3. Voter Address:** work with stakeholders to increase the probability of maintaining the voter's most current address. This portion is designed to increase UOCAVA voter turnout and decrease the undeliverable mail percentages;
- 4. Online Ballots: work with stakeholders to identify where ballots are being slowed down in the process from delivery through printing and return and reduce the obstacles that hinder the process. This portion will help increase the percentage of ballots successfully returned by UOCAVA voters;
- 5. Duplication automation: deploy technology and processes that streamline the ballot duplication processes (recreating scan-ready ballots); saving time, money, and most importantly boosting accuracy rates of duplicated ballots.

#### Analysis and Measurement of Current Processes

- 1. Tracking system: Currently the tracking process for UOCAVA voters is a manual process. There is an online process for Voter Registration; however, no online tracking exists for the ballot application and subsequent activities on a local level, but is available on the state website.
- 2. Voter registration: the FPCA registration process is cumbersome, time-consuming, and contingent upon location and assets of the voter, difficult if not impossible, to enable potential registrants to become eligible to vote in a timely manner.
- **3.** Voter Address: Overseas voters can rely on applications sent in over two federal election cycles, up to five years. Oftentimes, the addresses change without notification to the County Clerk's Office. Current law now requires a new application every year, but there is potential to reduce the number of outdated addresses by working with the stakeholders.
- 4. Online Ballot: see number 2 above; even those who successfully register are still encumbered with delays in accessing a document-based ballot delivered by various

means, and even then physical return requirements imperil timely return and validation of these ballots.

5. Duplication automation: voted and returned ballots require tedious and error-prone duplication so that they can be properly processed by optical scan technology

### Identification of Each Process and Elements Related to the Processes

- 1. Tracking: development of the tracking system should be fairly simple and accomplished quickly. The key will be to design a page viewable by the UOCAVA voter that will provide sufficient information from the existing database maintained by Votec.
- 2. Voter registration: voter registration requests from UOCAVA voters are received in several different ways (e.g. mailed paper forms, via Federal Post Card Application (FPCA)). It will be necessary for the designated programmer to work with Votec to automatically upload the information from an e-mail; thereby decreasing the dependence on employees to monitor incoming e-mails.
- **3.** Voter Address: the voter is responsible for updating their change of address. Currently there is not sufficient time to send a confirmation card to ensure the correct address. Notification through e-mail will greatly enhance the return of UOCAVA ballots.
- 4. Online Ballot: ballots are transmitted via a mailed paper ballot, an emailed blank PDF ballot, or potentially a web-based access. The Online ballot will allow the UOCAVA to type in their selections and have it printed on a PDF document.
- 5. Duplication automation: voted ballots received by statutory deadlines are validated, then manually duplicated by manual retrieval of the proper ballot type from secured document archives; voter marks are manually transferred by teams of (2) personnel as follows: one clerk reads aloud voter preferences, while second clerk marks those preferences on a paper ballot, and then both clerks checks the accuracy of the duplicated marked ballot.

## Identification of Potential Risks & Mitigating Strategies

Risk	Impact	Prob.	Mitigation
Election system vendor is unable to meet the needs of the project on schedule.	Ι	2	Select a vendor with a strong track record of success at election projects. Manage vendor deliverables with weekly status updates.
Ballot data is finalized with	1	1	Integrate online election vendor systems with

insufficient time to implement online election project.			Election Management Systems for direct transfer of data.
UOCAVA voter registration data changes frequently during the course of the election.	3	1	Integrate the Federal Post Card Application with the online election system. Schedule voter registration database updates in advance.
UOCAVA voters may not have Internet access.	1	Ĩ	Deploy Mobilized Universal Ballot Access solution for areas with high UOCAVA voter populations but low Internet access.
Tight project timescales mean that delays will lead to missed election go live date.	2	2	Front load election project with draft election produced well in advance of actual ballots. Choose vendor with strong track record of success in deploying on-time elections.
Ballots of online election contain errors.	1	2	Audit vendor's quality assurance process. Ensure all acceptance, Logic and Accuracy tests are completed successfully before election go live date.
Project subject to malicious electronic attack	4	1	Work to secure based on DCA approved and other standards. Create a detailed business continuity and disaster recovery plan.
Physical security at data center may be compromised	4	1	Maintain security management measures compliant with SAS 70 Type II [TI1] defined in the data center service level agreement.
Vendor staff may present a security risk to the project	4	1	Undertake security checks on vendor employees to assess risk of possibility of such occurrences.
Customer demand for the election services might be larger than anticipated.	2	1	Ensure that the technical system is built to cope with the largest possible demands. Automatic monitoring of system configured for notifications 24/7 should system go outside of expected parameters.
Negative news stories about the new voting methods appear in the local press.	2	1	Engage with local press during the voter engagement campaign and provide them with positive stories and photo opportunities to educate them about benefits.
Turnout is low.	3	3	Start voter engagement and promotion of the new services early in the year and build up to

			a crescendo around voting time in order to encourage voting.
Culture change issues may generate negative feelings in internal staff and stakeholders working on the project.	1	1	Start internal promotion of the project as soon as possible after contract agreement. Also provide complete visibility of the service development to end users throughout the process.
Some technologies may be new to some election staff	I	3	Ensure staff receives relevant training before they employ their skills. Establish skills hierarchy and provide technology briefings that highlight specific issues of importance to the implementation of each pilot.

#### Formalization of Performance Indicators for Each Process

- **1.** Tracking: once UOCAVA voters can follow their communication as it is processed, the tracking program will be complete.
- 2. Voter registration: compare voter registration rates of UOCAVA voters across like elections.
- 3. Voter address: substantial decrease in returned mail.
- 4. Online Ballot: compare and measure the following UOCAVA criteria:
  - a. ballots made available electronically across like elections;
  - b. ballots voted electronically across like elections;
  - c. ballots returned across like elections;
  - d. ballots counted across like elections;
  - e. ballots invalidated for various reasons;
  - f. implement optional post-voting surveys to gauge effectiveness, friendliness and accessibility of web-enabled balloting solution.
- 5. Duplication automation: measure amount of staff time required to duplicate returned and validated UOCAVA ballots compared to manual processes previously employed.

#### Justification for Modification of Current Processes

- 1. Tracking: the current system is limited to voter registration and needs to be expanded to the FPCA process. Additionally, the tracking system will collect information for reporting purposes of Harris County Elections Division.
- 2. Voter registration: to increase the participation of the UOCAVA voter populace because registering to vote will be easier and more rapid; the FPCA registration process (among other means) is too cumbersome and often too time-consuming to enable potential registrants to become eligible in a timely manner.
- **3. Voter address:** to decrease the amount of mail and e-mail that is returned undeliverable as the UOCAVA mail undeliverable rate is much higher than the local mail-in ballot process.
- 4. Online Ballot: to increase time to vote and return a ballot because current process is too reliant on document-based delivery vehicles; email addresses are more immediately verifiable than physical addresses for UOCAVA voters; easier electronic remedy of issues as compared to document-based delivery approaches.
- 5. Duplication automation: measurable cost/benefit return via increase in the efficiency and accuracy of duplication of voted and returned ballots; as UOCAVA participation increases, ROI will increase.

#### Projections of the Effectiveness of the Modifications

*NOTE:* as time passes and prior to the start of the research project, Harris County aims to more fully embellish statistics if their current capabilities allow the enumeration of such data by UOCAVA voters.

- 1. Tracking: The tracking system will be highly effective and engender a higher degree of confidence in the system by the UOCAVA voter.
- 2. Voter registration:
  - Increased participation with more readily available electronic access to an online tool, expect more individuals to be able to easily register
  - Data entry error reduction if voters are able to enter data electronically to the database, transcription errors (e.g. from illegible handwriting) are drastically reduced.
  - Cost savings data entry expenses reduced if voters self-enter data
  - Expectation that registrations submitted on paper forms will migrate to online registrations. Forecast for 2012 General Election that more voters will register on-line as register by paper

• Percentage of potentially challenged UOCAVA ballots not counted due to return delays/certification demands of an election will be measurably reduced

## 3. Voter Address:

• Decrease the amount of ballots returned undelivered will drop at least by 30%.

## 4. Online Ballot:

- 24 x 7 during the 45 day voting period
- voter ensured of receiving the ballot styles, contests, and candidates specific to their registered address.
- delivery of ballot guaranteed for UOCAVA voters compared to traditional document-based delivery
- Significance: prevent over-votes and warns about under-votes; voter errors will be virtually eliminated (HAVA-mandated 2<sup>nd</sup> chance voting).
- Ballots accessed online and completed online using an electronic marking tool to eliminate voter intent issues

## 5. Duplication automation:

- Cost/benefit: lower staff costs and time as manual effort is reduced
- Enhanced accuracy: automated duplication of ballots via a 2D bar code will reduce errors introduced in manual duplication efforts
- Scalable: auto duplication allows election offices to absorbed increased UOCAVA participation without increasing ballot processing staff. It also allows election offices to expand the capabilities being developed for the UOCAVA community to other communities (e.g. disabled voters) in a cost effective manner.

#### Measurements of Performance

Refer to the reports overview provided at the conclusion of the Technical Approach and Justification overview.

## Current and Pending Project Proposal Submissions (not included in page limitations)

Other than the Help America Vote Act Grant, there are no other submission by the Harris County Elections Division.

# **Qualifications – Resumes**

# JASON BRADLEY WILLIAMS

#### SUMMARY:

Over seventeen years of extensive information technology administration with a strong focus on PC/Server platforms and network installations, configuration, troubleshooting and LAN/WAN management.

#### **EXPERIENCE:**

#### Harris County Clerk's Office, Texas 2002-Present

#### Director of Information Technology

#### Present

- Oversee daily operations of the Information Technology department consisting of 42 staff members including Network Administrators, Software Developers, Database Administrators, Helpdesk Technicians, various supervisors and Data Entry Clerks.
- Designed the Harris County Clerk's Office current Data Center, in the design careful consideration was give when focusing on energy conservation to maximize energy and cooling savings. Room security was solved by adding badged security access at the only entry point; the room is under video surveillance.
- After Hurricane Ike funding was authorized to partner with a Co-Location partner and <u>all</u> SAN attached storage is real time replicated to a secure data center located in Phoenix Arizona. During this process an overarching project plan was developed to create an enterprise storage solution, as a result a Compellent SAN was installed replacing an aging EMC solution.
- Put together the request to replace the County Clerks aging mainframe Court Case Management system, from the RFP to serving on the RFP committee and currently overseeing the technical installation.
- Overseeing a Mainframe migration project which is developing Windows Applications to replace the Unisys Mainframe.

#### Network Administrator

#### 2002-2007

- Maintain the Harris County Clerk's Office entire network including WAN connections all annexes.
- Current projects are the implantation of Emc Clariion CX 500 to create an environment for a 4 node SQL 2005 cluster to migrate data from a aging Unisys mainframe.
- Maintain many aspects of Active Directory User Administration, Group Policy, DNS/WINS.
- Designed current Altiris installation including PXE installation, silent software installations.
- Installed and configured a Dell Power Vault NAS for storage of images of public records.

2007-

- Implemented a network based video security system to monitor various locations and recorded to a central location.
- Maintain all Election Servers during early voting and election times, including all communications to Early Voting sites. On election night I serve as one of the two system operators for tabulation of votes in Central Count.
- Engineered online disaster recovery system, for Citrix, SQL, and Oracle servers.
- Configured and maintain several Citirx servers and over 200 Citrix Users.

### HealthHelp, Houston, Texas

HealthHelp is a premier Radiology Management Company serving over 6 million people.

### Technical Services Manager

1999-

- 2002
  - Provide server and back end network support for LAN/ WAN and Phone Switch.
  - Installed and manage Shiva VPN solution.
  - Maintain all WAN connections to 4 locations across the country.
  - Travel to remote locations and maintain all hardware including phone system support.
  - Responsible for the installation and maintaining an enterprise fax solution.
  - Installed all Exchange Servers and responsible for day-to-day operations.
  - Reporting to the Director of IT, created the company wide network infrastructure including WAN connections.
  - Maintain PBX (moves, adds, and changes), Telco services including T1, PRI, ISDN, POTS, and long distance rates.
  - Responsible for maintaince on all Cisco products including Catalyst switch, enterprise routers, and PIX firewall solutions.
  - Installed and configured nightly backup process that is maintained by the HelpDesk.
  - Maintain, install, and configure in-house custom software applications.
  - Maintain overall Server Room support including security, additional A/C for 24hr constant cooling, cleanliness, space allocation, and all emergency power.

# Allright Corporation, Houston, Texas

## 1998 – 1999

The largest parking management services company, with 110 business units and over 5,000 employees.

Systems Administrator

- Directly responsible for NT Administration including domain management, user profiles, share management, DNS, DHCP, WINS, login scripts, and entire nightly system backup.
- Responsible for all hardware and software workstation equipment purchase, installation and training.
- Exchange administration installing exchange servers, maintaining e-mail accounts and connectivity.

- Responsible for network connectivity for employees over Token Ring, Ethernet, and Fast Ethernet topologies.
- Setup/install VPN for 110 business units and corporate subsidiaries for email and mainframe access.
- Provide desktop, network and VPN support to 5000 employees with both mobile and office-based equipment.
- Maintain imaging process, which reduces user rollout time and day-to-day operations.
- Act as an information systems liaison for 110 business units.
- Manage all network printing including connectivity and software management.
- Maintain continuous technology knowledge and training in parking lot management hardware and software.
- Managed migration from Windows 3.11 to Windows 95 and Windows NT workstation.
- As a part of a Move Team responsible for the coordination of office cabling for voice and data and moving of 100 employees to a new corporate headquarters.

## TECHNICAL BACKGROUND:

- Networking OS: Windows 2003 & 2008 Server & Advanced Active Directory, Windows 2000 Server & Advanced
- SAN: Emc Clariton CX 500 Series, Compellent
- Desktop Management: Altiris NS/DS 6.x, Client Management Suite Level 1-3, Dell Open Management Management/Managed Station
- Server Hardware: Dell Poweredge
- Firewall: Resilience Ndurant Express 30 w/Management Station
- PC Hardware: Dell, Compaq/Hewlett Packard, and clones.
- Software: Windows 9x 7, Microsoft Office 9x 2010, Ghost, PC Anywhere, HP Web Jet Administration, Veritas Backup Exec, MS SQL 2000-2008, EMC Networker, Solarwinds.Net
- **Print Servers:** HP Jet Direct, Lexmark
- Terminal Server Packages: Citrix Xenapp Server
- Network Topology: 10/100/1000 Ethernet, Gigabit, Fiber
- Email Systems: Exchange 2003-2010 Microsoft Exchange Server 5.5 Enterprise
- **Phone System:** Inter-Tel Axxess and management software, NEC2400IPX w/ACD and Wygant Voice Recorder
- Mainframe Servers: Unisys ClearPath
- Remote Access: Microsoft VPN/Dial-up
- Miscellaneous: Voice & Data cabling, RAID array, KVM, Tape/Autoloader DLT & DAT, CD/CDRW/DVD, T1s, PRI, ISDN, POTS
- Emergency Power: Liebert Series 300 75kva w/ Liebert PDU, Onan 400amp diesel generator, Onan Automatic Transfer Switch

#### EDUCATION:

Tomball College, Tomball Texas Blinn College, Bryan Texas General courses toward Computer Science Degree

### **CERTIFICATIONS:**

Dell Certified Technician - December 5, 2000

- PowerEdge Server
- Precision Workstation
- Latitude Notebook
- Optiplex Desktop
- Dimension Desktop

# Jennifer Lee Ballard Supervisor of Elections Harris County Clerk Elections Division (b)(6)



# Experience:

2/1998 present	Harris County, Texas – County Clerk's Office – Elections Division. <b>Supervisor of Elections.</b> Duties include supervisor over 60 employees to complete the following tasks: Ballot By Mail, Overseas Voters, Voter history, Logic and Accuracy Testing, Liaison with Ballot Board, Provisional Ballot processing, Limited Ballot processing, voting fraud audit, astronaut voting. Per election, approximately 60,000 – 80,000 ballots are processed by the absentee ballot section. Designed and Implemented new voting system for astronauts in 2010. Played an integral role on the team to implement the Voter Election Management System.	
1/1996 - 1/1998	Harris County, Texas – County Clerk's Office – Elections Division. <b>Clerk.</b> Duties: Ballot By Mail. Processed applications for absentee ballots and punch card ballots for elections.	
5/1991 12/1995	A-Z Landscape and Lawn Maintenance. Business Owner. Duties: billing, advertising, collecting.	
1/1989 - 6/1990	Harris County, Texas – County Clerk's Office – Personal Records. Clerk. Duties: processed personal records for Harris County.	
Education:	Aldine High School 1986	
Special Skills:	management of the Mail-In Ballot program for Harris County	
Computer Skills:	Ballot Now, VEMACS, TEAM, EXCEL, VoteSAFE	
Awards: Hart InterCivic "Eslated for Success"; Harris County Commiss Court Resolution – November 23, 2010 – for pulling together the after the August 27, 2010 fire.		

#### Thomas Middleton Moor.

(b)(6)	

#### **Experience:**

- 1/1/2011 present Harris County Tax Assessor-Collector's Office Senior Manager of Voter Registration. Responsible for the registration of close to 2 million voters in Harris County. Harris County is the third most populous county in the nation. Oversees multiple sections including: mapping, data entry, voter call center, application review, volunteer deputy training, imaging and voter incoming mail center.
- 8/2005 12/2010 Harris County Clerk's Office Assistant Administrator of Elections. Responsible for locating and staffing 37 early voting locations and over 740 election day locations for each election. Supervised training of election day workers, early voting, and technicians. Handled open records requests data extracts for the Elections Division.
- 3/2000 7/2005 Harris County Tax Assessor-Collector's Office Special Projects Manager. Designed and Implemented voter registration system, time clock system design.
- 10/1999 2/2000 Cathy McConn Campaign Texas Congressional District 7 Campaign Manager – Supervised campaign projects including fundraising, marketing, speaking engagement schedules, stakeholder meetings.
- 6/1971 9/1999 Cameron Ironworks *Information Technology Liaison*. Participated on the design team to implement SAP system world-wide. Additionally designed management information system and extracted information from the management information system for company leadership decision-making. Managed production inventory control program

#### Education:

Texas A&M University, College Station Texas, Bachelor of Science – Industrial Technology – 1971

Special skills: ACCESS database, EXCEL, VEMACS

# Sonya L. Aston Harris County Clerk's Office Assistant Administrator of Elections

Education: SOUTH TEXAS COLLEGE OF LAW, J.D. - May 1993
 Articles Editor: Currents, International Trade Law Journal
 Varsity Advocate: Semi-finalist & quarter-finalist Mock trial, Regionalist Client
 Counseling
 Quarter-finalist Negotiation Competitions, SBA officer: Outstanding Officer
 Award
 UNIVERSITY OF TEXAS AT AUSTIN, B.A. in History, December 1986

Governmental Attorney working for Harris County Clerk, Harris County Tax Assessor-Collector, and City of Houston.

#### LAWYER

- 03/11-present Harris County Clerk, Houston, Tx. Assistant Administrator of Elections. Oversee training, election poll staffing and legislative activities. Assist with contracts and grant writing and other duties as assigned.
- 12/06-02/11 Harris County Tax Office, Houston, Tx. Director of Compliance. Harris County is the third largest county in the United States. Provide legal review and support for property tax collection, automobile registration, voter registration, liquor permitting, legislative presentations and analysis. Supervised multiple projects involving entire Tax Office Staff and projects with other governmental entities. Coordinated development and presentation of new employee handbook.
- 12/05-11/06 Collier Legal Search Houston, Tx. Legal Recruiter. Highly successful in bidding and staffing large attorney contract projects. Supervised over 40 attorneys on variety of projects.
- 06/03-08/05 Mayer, Brown, Rowe & Maw Houston, Tx. Lead Contract Attorney. Supervising team of 30 contract attorneys on discovery issues in major securities litigation.
- 09/02-06/04 **Campbell, George & Strong** Houston, Tx. Of Counsel. Environmental permitting, administrative proceedings, commercial litigation. Activities involve discovery preparation, privilege review, motion drafting, client counseling, business development.

- 08/00 09/02 Conoco, Inc. Houston, Tx., Environmental Group. Environmental Regulatory and Litigation Attorney. Responsibilities included interpretation of highly technical and analytical materials; comprehension, over-sight and decisionmaking on groundwater modeling projects; trial preparation; witness preparation; client counseling and coordination of experts and outside counsel for filings in the California Charnock Wellfield MTBE regulatory and litigation matters. In addition, handled California UST Fund reimbursement, Internal Environmental Audit issues, and retail site contamination issues.
- 10/96 08/00 City of Houston, Tx. Legal Dept., Land Use Environmental Law Section. Responsibilities included development of environmental policy, first chair on administrative and civil litigation; client counseling; legislative analysis; negotiation and drafting contracts for settlement and right of entry; permitting; interaction with EPA, TNRCC and other governmental agencies; and general knowledge of air, water and land environmental issues. Also, acted as an integral member of the Mayor's executive air policy team - focusing on enforcement in the region and development of legislation.
- 2/94 10/96 City of Houston, Tx. Legal Dept., Business Litigation Construction Section. Duties: litigation management, client interview, technical and legal research, drafting pleadings and summary judgment motions, expert witness preparation, drafting jury charge, hearings and trial argument, City ordinance drafting. Daily issues concern breach of contract, commercial law, government, construction and environmental causes of action.

#### LEGAL ASSISTANT

- 8/89 2/90 Heller Anchorage, Ak. Lead Legal Assistant in charge of responses to federal grand jury subpoenas served on Alyeska Pipeline Service Co. regarding the Exxon Valdez spill and Alyeska's operations and role in the response. Duties: supervision of attorney review of over 1 million documents, privilege log preparation, production of documents, and assisted in factual and legal research on pertinent issues.
- 4/88 7/89 Heller San Francisco, Ca. Lead Legal Assistant in large municipal securities litigation. Duties: deposition preparation, computerization & coding of over 600,000 documents, proofing and supporting motions for summary judgments, cite checking, and legal assistant training.
- Language: Semi-Fluent in German

# **Budget Proposal**

## **BUDGET PROPOSAL**

Itemized Budget:	
Items	Total
A. Direct Labor:	
n/a	\$0.00
Subtotal	\$0.00
B. Administrative and Clerical Labor:	
n/a	\$0.00
Subtotal	\$0.00
C. Fringe Benefits and Indirect Costs:	
n/a	\$0.00
Subtotal	\$0.00
D. Travel:	
San Antonio, TX - 3 Clerks - 2 nights (Travel \$658.56, Lodging \$780, Meals \$210)	\$1,648.56
Austin, TX - 3 Clerks - 2 nights (Travel \$540.96, Lodging \$780, Meals \$210)	\$1,530.96
Belton, TX - 3 Clerks - 2 nights (Travel \$601.44, Lodging \$612, Meals \$210)	\$1,423.44
San Diego, CA - 3 Clerks - 2 nights (Airfare \$1,065, Lodging \$1,380, Meals \$210)	\$2,655.00
Subtotal	\$7,257.96
E. Subcontracts/sub awards:	
One time fee for subcontractor to develop and implement a user-friendly automated	<b>*</b> •••••
and efficient absentee voting system for overseas voters from Harris County.	\$0.00
Business Analyst: 160 hrs.@ \$142 to gather and analyze business requirements for the project.	\$22,720.00
Project Manager: 680 hrs. @ \$142 to manage to overall project	\$96,560.00
Solution Architect: 560 hrs. @ \$142 to define the software architecture	\$79,520.00
Senior Developer: 680 hrs. @ \$119 to develop the application	\$80,920.00
Data Analyst (DBA): 480 hrs. @ \$119 to setup databases for the application	\$57,120.00
10 % for contingencies	\$33,684.00

Subtotal	\$370,524.00
F. Consultants:	
n/a	\$0.00
Subtotal	\$0.00
G. Materials and Supplies:	
n/a	\$0.00
Subtotal	\$0.00
H. Other Direct Costs:	
SQL Server: Dell Server with 5 yr. of warranty	\$18,000.00
MS SQL License	\$40,000.00
Backup agent for SQL Server	\$1,000.00
Fiber connections	\$7,500.00
Exchange Server: Dell Server with 5 yr. of warranty	\$12,000.00
MS Exchange License	\$7,500.00
Backup agent for Exchange Server	\$1,000.00
2 Production document scanner setup including high speed document scanner, pc, software	\$40,000.00
2 HP LJ 9050 high speed printers	\$7,500.00
10 Handheld bar code scanners	\$3,850.00
Subtotal	\$138,350.00
I. Total Direct Cost (sum of A through H):	
Subtotal	\$512,131.96
J. Total Indirect Cost (sum of A through H).	
Subtotal	\$0.00
K. Grand Total Cost (sum of A through H).	\$512,131.96



Technical Proposal

# Catalog of Federal Domestic Assistance Number: 12.217

HQ0034-FVAP-11-BAA-0001

# "JOCO ABROAD!"

Cage Code-

DUNS Number- ((b)(4)



Johnson County Election Office (Kansas)

Technical Contact – Janette Scobey 2101 East Kansas City Road / Olathe, KS 66061 Office 913.782.3441 | Direct 913.715.6842 | Fax 913.791.1753 janette.scobey@jocogov.org

# Business Contact – Zachery McIntosh

2101 East Kansas City Road / Olathe, KS 66061 Office 913.782.3441 | Direct 913.715.6815 | Fax 913.791.1753 zachery.mcintosh@jocogov.org

To Be Completed By August 2012.

Technical Approach and Justification

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# **Executive Summary**

*JOCO Abroad!* will be the highly visible and well-promoted digital home and voting resource for military members, their families, and traveling civilians from Johnson County, Kansas. The Johnson County Election Office is proposing this interactive website to alleviate many of the problems that impact voters eligible for special treatment under the Uniformed and Overseas Citizens Absentee Voter Act (UOCAVA).

*JOCO Abroad!* will feature tools that are needed by UOCAVA voters to partake in the election process electronically and is designed to emulate the processes that successfully target domestic voters while customizing the message and reaching to ensure the highest possible voter participation among military and traveling voters.

Voters will be able to check and update their status, request a ballot, vote electronically, interact with other voters and the Election Office, and track the status of their returned ballots.

Our site will have **an extensive and comprehensive Help section** that will answer most common questions a UOCAVA voter might have. Our site will even boast a community discussion board that will allow them to discuss non-political ideas and thoughts about voting while abroad. Speed and efficiency are very important to UOCAVA voters and *JOCO Abroad!* will provide everything they need in a speedy, efficient manner.

Finally, to leverage platform efficiency, *JOCO Abroad!* will be accessible as a mobile application for iPad, iPod Touch, and iPhone users. These Internet devices are pervasive and may be more accessible to UOCAVA voters than computers.

# **Goals and Objectives**

The ultimate research goal of this program is very simple: demonstrate that customized, targeted, consistent communications and support for military and overseas voters will lead to a comparable ballot return rate experienced with domestic voters.

Conclusions from this research will lead to shared learnings through the state of Kansas and throughout the election administrator community nationwide. Findings will be shared with the Kansas Secretary of State with the ultimate purpose of scaling successes statewide.

One of the most important features of *JOCO Abroad!* will be the ability to receive ballots and return them online. Actual online completion of ballots in live elections will not be a 2012 component of *JOCO Abroad!*, but the Johnson County Election Office will use the *JOCO Abroad!* grant to develop an online voting system for at least one student election in 2012. The purpose will be to further test the ease and efficiency for voters to request, receive or return their ballots. Online voting will be through a system developed by our office.

UOCAVA voters will be also able to make changes to their Federal Post Card Application (FPCA) easily. This will allow voters to update their FPCA every year or when they move between elections. Having an up-to-date FPCA means that the voter will receive the correct ballot as quickly as possible, and this update tool will reduce improper mailings and increase the return rate. The site will also allow voters to provide their email, phone number, or any other social media nickname so that the Election Office can email and/or text them important messages and reminders throughout the election cycle. The Johnson County Election Office is a leader in electronic voter notifications, having received the Election Center's Best Practice of the Year for mobile and podcast notifications in 2006.

Another key component of *JOCO Abroad!* will be an extensive and comprehensive Help section. The Help section will be divided into two categories: text and video. This section will be used to answer frequently asked questions and also provide help with filling out the FPCA, requesting ballots, and submitting ballots. Video can provide voters with an easy to follow instruction and also educate them on the electoral process. Making the information available, but not overwhelming, will be the goal.

The central theme of the enhanced Help section will be to provide 24-hour support in the same level domestic voters typically receive. For instance, the Johnson County Election Office understands that military voters may only be able to access the site at 2 a.m. Central Time. Therefore, *JOCO Abroad!*'s mission will be able to answer questions around-the-clock so the voter never has to leave or return to the site later.

Our site also will allow the voter to instant message our office and video chat through Skype. Once again, this is intended to speed up the question answering process. Facebook and Twitter will also provide means for the voter to contact the office.

Another technological innovation which will be utilized is a Quick Response (QR) Code. QR Codes (Example on page 19) will allow the voter to scan the QR Code with a QR readerequipped smart phone and be directed to *JOCO Abroad!* for help and support. Some UOCAVA voters still choose to receive their ballots by mail. By using the QR Code on the bottom of the instruction pages they will have easy access to online support if they need it, and the QR code will be customized to each voter so that voters can verify that the ballot was received by the Election Office. The QR codes will only be tied to delivery and receipt of the ballot and in no way will violate voter privacy or allow anyone to later connect a voted ballot back to the voter. All features of *JOCO Abroad!* will be replicated in an iPad, iPod Touch, and iPhone application that is under development by the Johnson County Election Office.

# Failure Mitigation

The impact this digital home could have on the voters will be immense. Time is the great hindrance when it comes to UOCOVA voters; they have to wait for their ballot and wait for answers. By giving the UOCAVA voter a tool like *JOCO Abroad!* their wait time will be drastically cut. Improved efficiency will lead to an estimated 25% decrease in failure rate when returning a ballot. However, ballot return will not be the only decrease in a failure that often plagues UOCAVA voters.

Many UOCAVA voters often struggle getting their ballot. It often takes weeks for a mailed ballot to reach the voter leaving little or no time to send that ballot back, but through *JOCO Abroad!* the voter can choose an online means of voting. Therefore, the failure rate of ballot delivery will be negated by the fact that the voter can cast an online ballot. *JOCO Abroad!* will be filled with information on how to easily vote online, therefore making ballot delivery failure a thing of the past.

A very common complaint of UOCAVA voters is that they cannot electronically mark the ballots that are emailed to them. This wreaks havoc on voters who do not have access to a scanner. Once again, this problem will be remedied almost 100% by online voting.

As stated earlier, *JOCO Abroad!* will allow voters to register and update their FPCA online. Often times our office receives, a day or two after a major election in the mail, several FPCAs that are dated well before the election. By quickly logging onto our site UOCAVA voters can update or create a new FPCA in a matter of minutes. In addition, our system will be electronic giving voters peace of mind that they don't have to wait for their FPCA to be delivered through the standard mail. With online registration, the number of unsuccessful FPCA forms could drop by as much as 50%.

The goal of *JOCO Abroad*! is to reduce the rate of all failures that face UOCAVA voters. All of these failures will be reduced by allowing more electronic processes and providing ample support to the voter. Through *JOCO Abroad*!, our county's UOCAVA voters will have confidence that their voice is heard through the electoral process.

## **Schedule and Milestones**

Summer 2011
May 2012
June 2012
March 2012
December 2012

## **Reports**

For *JOCO Abroad!* two reports will be prepared. The first will be a midway progress report. This report will consist of programmatic and financial progress reports. This report will be submitted by March 2012. The midway report will also contain detailed information about the building and testing of the site and its key tools. The second report will be the final report and it will be completed by December 2012. Once again, the final report will also update the programmatic and financial information since the previous report.

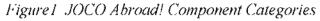
# <u>Criteria</u>

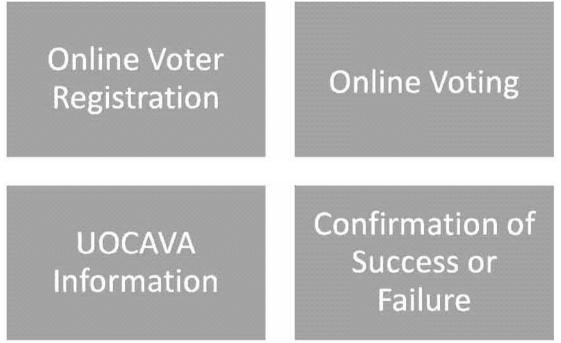
**Significance-** The main idea of our page is a digital home for the UOCAVA Voter. This will allow the UOCAVA voter to participate in every step of the election process from registration to casting a ballot entirely electronically and in constant contact with our office. However, the goal will be much larger than just the actual election process; this site will encourage the voters to share ideas of how to make their voting experience more streamline. From whom better to get ideas of how to improve our voting systems than the people who will be using it? Combining a robust index of answers with the ability to electronically register and vote online is what modern UOCAVAs want. *JOCO Abroad!* will become a virtual one stop shop, that is convenient and quick.

**Sustainability-** Sustainability of the system is quite easy. The website will remain running long after the 2012 elections. Over time the site will become a well-known site among Johnson County UOCAVA voters. The site can be easily updated to provide useful information year round. The feature of allowing voters to update their FPCA will make it easy for the voter to keep their UOCAVA status. Almost all the cost of this project is at the front end; after the site is up and running properly, then all the cost will just be maintenance.

**Impact**-*JOCO Abroad!*, with all of its tools, can have an effect on every single one of our county's UOCAVA voters (See *Component Categories, Figure 1*). One of the most important parts of *JOCO Abroad!* is to make voters feel that they have a place to turn to with questions and

therefore are never alone trying to figure out the voting process. *JOCO Abroad!* will be the first place to which UOCAVA voters will turn when they have a question, whether it's registering for UOCAVA, voting an online ballot, finding answers to questions, watching tutorial videos, or just leaving a comment about their Johnson County UOCAVA voting experience. *JOCO Abroad!* will also impact offline voters through the use of QR codes on the mail that our office sends them. Using QR codes will have an impact by taking the offline voter online. A digital home for our UOCAVA voters will make their voting an efficient, quick process.





**Strategic Approach-** By making the voting process faster and more efficient, thereby making the process more convenient, voter turnout for UOCAVA voters will rise. With *JOCO Abroad!*, many of the problems faced by Johnson County UOCAVA voters will be a thing of the past. Online voting through *JOCO Abroad!* will alleviate many of the problems, such as ballot delivery, marking ballots, and ballot return.

A fundamental differentiator will be an extensive and comprehensive support section that will be designed to intuitively answer voters' questions and reduce, if not eliminate, the need for the voter to return to the site at a later date to complete the application and voting process. Because the site is envisioned as a digital home, frequent visits will be encouraged, but for casting a ballot, a "One and Done" support approach will be utilized.

Many times UOCAVA voters are not familiar with the voting process and cannot find the answers they seek in a timely manner; this problem will be solved by *JOCO Abroad!*. Not only will there be answers in the form of text, but also tutorial videos that help them with a number of different items. Registration renewal will be electronic to expedite this process.

**Innovation-** Our society has been evolving to become more digitally intelligent, and this is also the case with UOCAVA voters. They want their voting experience to keep up with the times and technology to which they are accustomed. This project will deliver many new and upcoming technologies, first, the QR codes that our office will use on all of our printed material to direct the voter to *JOCO Abroad!*. QR codes are the small square barcode-looking things popping up everywhere in popular culture and an exciting way to take a voter from being offline to quickly being online. For example, a QR code can be placed on the bottom of an instruction page mailed to a voter and when scanned by a smart phone or mobile device with a QR reader, it will direct the voter to *JOCO Abroad!* for help if needed. However, QR codes are not tied to the internet; plain text can also be coded into QR codes. QR codes can easily be used by many different jurisdictions, and they are a great way to take offline users and move them to a chosen website.

JOCO Abroad! will also harness the communicating power of Skype. This will allow our office to have instant message conversations and also video chatting sessions. Skype will be another tool the voter can use to contact our office. It is more personal than email, in the sense that one can actually see with whom they are speaking in a video chat. Streaming video on the site will also allow the voter to watch short instructional videos. These videos will range in topic from just an introduction to UOCAVA voting to more specific topics such as how to fill out the FPCA. Video will complement the text on the site and the text will complement the video. *JOCO Abroad!* will also harness the power of UOCAVA voters by asking them for their suggestions of how to make their voting experience better. Our UOCAVA voters could have great ideas of how to better our services to them and *JOCO Abroad!* will give them a forum to voice these ideas.

The online voting method our office is creating works by having to login to the website.

## Account creation:

Membership to the *JOCO Abroad!* site is limited to UOCAVA voters of Johnson County and the staff of the Johnson County Election Office. A user will be able to request an account using an automated registration system. The user will create a unique user identification (User ID) or screen name. The User ID will be associated with the unique voter registration number upon approval of the account by a staff member of the Johnson County Election Office. No two users in the *JOCO Abroad!* system will be allowed to enroll using the same User ID. User IDs cannot be a voter registration number.

# Authenticated login process:

The users must use their User ID and password to authenticate their identity. The authenticated login process will be utilized to customize the content on the *JOCO Abroad!* site to personalize the user experience. Important dates, upcoming election information, and ballots, if applicable, will be displayed according to the user voter registration information.

# Secure FTP:

The *JOCO Abroad!* site will include a secure ftp feature that will allow a subscribed member access to their ballot in a fillable PDF format which can be marked then uploaded to the site.

To use the FTP feature of the site, the user must be logged in using the authentication process of the site. This will ensure the identity of the user. Each user will have a unique directory on the site. They will not have the ability to change directories on the FTP site. They will not have the ability to delete or overwrite files currently existing on the site. The directory will be automatically created when the user account is approved by an Election Office staff member. All data uploaded to the site will be encrypted for additional security. Finished forms and ballots will be stored on the system for a definitive amount of time according to current laws and regulations.

These well-researched and developed innovative technological tools will enhance the UOCAVA voting experience.

**Scalability**-*JOCO Abroad!* will function the same regardless of the number of UOCAVA voters who are using it. Like all voter registration in a Presidential Election year, UOCAVA voter registration and participation will drastically rise. As a website, *JOCO Abroad!*, will be able to handle the extreme ebb and flow that is the election cycle. It will not be any harder to service one UOCAVA voter than it will be to service a thousand.

**Collaborative-** The entire theme of *JOCO Abroad!* is collaboration, both between the voter and the Election Office and among UOCAVA voters as well. The more interactive the site, the more likely UOCAVA voters will return and become engaged beyond the current election. Often, elections occur without voters' knowledge, which is why Johnson County created email and text messaging notifications five years ago. Currently in Kansas, UOCAVA voters are eligible for all elections (effective July 2011) and many voters may not be aware of this. The interactive site encourages engagement and awareness.

**Cost Benefit Analysis-** The creation of *JOCO Abroad!* and all of its tools will greatly increase the number of successfully returned UOCAVA ballots. In the 2010 General Election the percentage of returned UOCAVA voter ballots was 28.5%, which is much lower than the general

population which had a voter turnout of 50.51%. This low UOCAVA voter turnout showcases that many problems currently plague these voters. Another example of low UOCAVA voter turnout is seen in the table below. The table shows the comparison between advance voters and UOCAVA voters and, as you can see, the advance voter percentage returned is almost three times that of the UOCAVA voter. With the capabilities of *JOCO Abroad!*, voter turnout for UOCAVA voters is expected to rise to 60% voter turnout, if not higher.

	Voter Turnout Comparison Between Advance Voters and UOCAVA Voters						
General	Advance	Advance	Advance	UOCAVA	UOCAVA	UOCAVA	
Election	Ballots Sent	Ballots	Percentage	Ballots Sent	Ballots	Percentage	
	By Mail	Returned	Returned		Returned	Returned	
2006	30,151	25,836	85.7%	892	252	28.5%	
2008	64,396	54,045	83.9%	1515	1243	82.0%	
2010	40,486	30,160	74.5%	1130	323	28.5%	
Average	45,011	36,680	81.3%	1,179	606	46.3%	
2012 E	60,000	48,000	80.0%	1700	1426	83.9%	

#### Online Voter Registration

- Fillable PDF FPCA
- Ability to upload FPCA to JOCO Abroad!
- Online Voting
- Ability to vote electronically
- Fillable PDF
   Ballot

#### Ability to upload ballot to JOCO Abroad!

#### UOCAVA Information

- Comprensive Help section wil answer UOCAVA voters' questions
- Videos about a wide range of topics will help and educate UOCAVA voters
- Outreach to UOCAVA voters

# Tracking

 QR codes can be used to track whether a mailed ballot has been returned

# Management Approach

# Personnel and Contractors

The creation of *JOCO Abroad!* will mean the use of outside resources. Our office will use a technical analyst (\$25,000) who will help create the website. Along with an analyst, our office will use WhitworthBallou (\$35,000), which collaborated with our office in the creation of the award-winning JoCoPolo (2009 Election Center Stars and Stripes winner). Along with the manpower of advertising agency WhitworthBallou and a technical analyst, our office will also need new servers (\$25,000) to support *JOCO Abroad!*. With the group effort of these elements, *JOCO Abroad!* will be up and running.

The testing of *JOCO Abroad*! will take place in student elections. Student elections will be an ideal environment to test the functionality of *JOCO Abroad*!'s abilities. Along with testing in student elections, many of the functions that are harnessed within *JOCO Abroad*! will be tested in the office. Testing will be meticulous to ensure that the all aspects of *JOCO Abroad*! function according to plan and are intuitive to use. The creation of *JOCO Abroad*! will allow for the simple tracking of how giving UOCAVA voters electronic tools can increase their voting participation.

## Proposed work by WhitworthBallou

# Proposed Actions to Activate UOCAVA Awareness and Usage

Outreach plans will assume the inherent mobility of the intended users and that the internet is their primary means of communications and being connected to family, community, and support groups.

A cohesive and focused Outreach strategy will be developed based on closer examination and assessment of how our efforts can complement and localize FVAP activities already undertaken and the considerations outlined below.

In taking this holistic approach to communications outreach, we will establish *JOCO Abroad!* availability and functionality relative to Johnson County voters' efforts to maintain active participation in their government while abroad.

# Objectives

- Ensure military personnel, family and influencer familiarity with advanced voting options and calendar.
- Identify and communicate with "intermediaries" who can carry the information to the targeted voters – civic, military support, governmental and quasi-governmental, media, et al. to optimize reach.

Promote awareness of JOCO Abroad! features, functionality, and ease of use.

## Identity

• Develop *JOCO Abroad!* identity and persona that is both distinct, relevant, and consistent with Election Office brand portfolio and further propels interest and engagement.

## Service Branch and Military Alliances

- Partner with local American Legion Chapter *Family Support Network*
- Partner with VFW Operation Uplink for active duty personnel and Shawnee and Lenexa Posts

# Website & Digital Tactics

- Optimize the site for organic search page rank results
- Implement JOCO Abroad! Facebook page
- Post content to DOD.mil/USA.gov sites such as *Military Homefront* "Plan My Move"
- Feature prominently on County and other locally oriented community websites
- Establish links from Overseas Vote Foundation, Democratic Party's Vote From Abroad (D), and other relevant organizations' sites
- Partner with Mobile USO
- Post to regionally focused blogs

# Community Outreach & Partnerships

- Enlist assistance of campaign committees, party officials, and professional campaign managers.
- Append all Johnson County Election Office voter information material with JOCO Abroad! messaging
- Enlist outreach support from other known allies: Johnson County Library System, Sheriff's Department, Johnson County League of Women Voters
- Incorporate messaging with other voter information initiatives in the lead-up to 2012 election cycle; deploy the Election Office mobile unit – JoCoPoLoMobile – to focused, relevant events during pre-election time period incorporating advance overseas deployment information

# Media

Local media relations with primary political correspondents and commentators

Project duration: 6-8 weeks

Estimated Agency Hours: 400 Hours

Estimated Outreach Cost: \$40,000.00

## Definition and formalization of strategic goals

- Create a digital home that allows the UOCAVA voters to take part in elections electronically.
- -Use JOCO Abroad! to research electronic voting.
- Use outreach to inform UOCAVA voters about the tools of JOCO Abroad!.
- Make *JOCO Abroad!* an easy-to-use site that has answers to many UOCAVA voters' questions.
- Have *JOCO Abroad!* become a model for other counties of how to effectively allow for electronic voting and registration.

## Analysis of current processes

The current process, in regard to UOCAVA voters, can be broken down into three steps. The first is to have the voter receive the FPCA. This is done through a couple of different ways. Our office can send it via mail, email, fax, or the voter can get the FPCA through our website. The downfall is that if the voters want to send their FPCA back electronically, they must have access to a scanner so they can send our office the completed copy. The next two steps are getting the ballot to the voter and receiving the ballot from the voter. There are three different methods used to accomplish this goal. Currently, our office mails all ballots and also emails or faxes additional copies if the voter has requested email or fax. Once again, if the voters have requested a ballot by email, they must have a printer and scanner available to print off their ballot and scan it back to their computer in order to email the ballot back. For this reason, many who receive their ballot by email often end up mailing their ballot back. Because so many UOCAVA voters lack the equipment, scanners and printers, many are bound to the sluggish workings of international mail. In the 2010 General Election our office only received back 28.5% of UOCAVA ballots sent out.

# Identification of process and its elements

JOCO Abroad! will include the following processes:

Online voter registration - The process for creating online voter registration involves making a fillable PDF of the FPCA. The voter can download the PDF from *JOCO Abroad!* complete the form and then upload. After the FPCA is completed and uploaded, the UOCAVA voter can then request a ballot or vote online.

Online voting - After the UOCAVA voter completes the FPCA, they can vote online. This process will call for the voter to login to *JOCO Abroad!*, then the voter can receive a fillable PDF of the ballot. After filling out the ballot the voter can upload it to *JOCO Abroad!*.

QR code tracking - This will allow voters who mail their ballot to see if it has been received. By scanning the QR code included in the information mailed to UOCAVA voters with their ballots, the voters will be directed to *JOCO Abroad!* where they can login to see if their ballot has been received.

Receiving Help - The comprehensive Help section boasted by *JOCO Abroad!* will ease the process for UOCAVA voters to have their questions answered. Through video and information on a wide range of topics the voters will quickly get the help they need. The process of getting a quick answer for UOCAVA voters can be very frustrating, but with *JOCO Abroad!*'s Help section they can quickly access the answers they seek.

# Identification of potential risk and mitigating strategies

When creating something new there are always potential risks. The best way to prevent these risks from becoming real problems is to forecast them early. One potential risk of *JOCO Abroad!* will be our office's ability to get online voting up and running properly in the prescribed time. The belief is that we have the right idea about building an online voting system; however, if we are not able to do so, our office has considered using an outside source to build this system.

# Performance indicators

For JOCO Abroad! to be a success it must perform its duties well. Since JOCO Abroad! exists in the digital realm, it will be easy to track the number of UOCAVA voters who use it. A simple hit counter will allow our office to see how many people visit the site. Tracking the number of online registrations and voted ballots will make it easy to track the number of users. Knowing these numbers will directly indicate the number of UOCAVA voters who take advantage of JOCO Abroad!'s electronic abilities. The performance indicators for the Help section will be less direct than online registration and online voting. The Help section will be a success if our office sees a drop in the number of UOCAVA voter questions and an increase in the number of FPCA and ballots filled out correctly. The ultimate performance indicator will be voter turnout; if JOCO Abroad! can increase voter turnout, then it will be a success.

# Justification for the modification to the existing processes

The current process used to correspond with UOCAVA voters is slow and unreliable. This accounts for many of the failures that UOCAVA voters experience; change is needed in the current system to keep up with an ever-changing world. Many UOCAVA voters have enjoyed their right to vote; however, the process is cumbersome and unreliable. New modifications are

needed to up the voter participation of UOCAVA voters. With the introduction of *JOCO Abroad!* there will an upswing in the UOCAVA voter turnout percentage. The use of *JOCO Abroad!* will remove many of the obstacles that are part of the existing process.

# Projection of the effectiveness of modifications

The update built in to *JOCO Abroad!* will affect the process in a positive way. Our office estimates a rise in UOCAVA ballots returned and a decrease in failures often associated with the UOCAVA process. Online voting will tremendously help the return rate of UOCAVA ballots. This electronic approach to voting will make casting a ballot much quicker than the existing process. Online registration will give the voter a fast and easy way to become an UOCAVA voter. Our office predicts a 25% increase in the percentage of returned UOCAVA ballots.

# Measurements of performance

The ultimate measure of the performance and success for *JOCO Abroad!* will be in the increased percentage of returned voted ballots. If the turnout percentage of UOCAVA voters can go from 28.5% to 50%, that's almost double the number of voters able to participate in the election. If the Help section is able to answer the questions of UOCAVA voters without them having to contact our office this will also be seen as a success.

# Current and Pending Project Proposal Submissions

The Johnson County Election Office does not have any current or pending project proposal submissions.

# **Qualifications**

# **Project Mangers**

## **Brian Newby**

Brian D. Newby was first appointed Johnson County Election Commissioner by Kansas Secretary of State Ron Thornburgh on January 11, 2005 and appointed to a third term by Secretary of State Chris Biggs in 2010. Since his initial appointment, Brian has administered more than 30 elections while earning national recognition for operational and technological innovation excellence. The Johnson County Election Office has won several awards while under the guidance of Brian Newby.

# Zach McIntosh

Zach McIntosh joined the Johnson County Election Office in February of 2010. Zach is the main contact for UOCAVA voters in Johnson County. Zach graduated from Kansas State University in 2007 with a BA in History.

# **Technical Manger**

# Janette Scobey

Janette Scobey joined the Johnson County Election Office in 2010 as an Election Systems Administrator. With a 25 year background in Information Technology she is responsible for maintaining the current computer equipment and systems as well as introducing and implementing new technology into the Election Office. Janette is also responsible for the Election Office social media and websites and serves as the technical contact for the *JOCO Abroad!* project.

# **Consultants**

# WhitworthBallou

WhitworthBallou is an advertising agency in Kansas City. WhitworthBallou collaborated with the Johnson County Election Office in the creation and marketing of JoCoPolo.

# **Budget**

Our office estimates that it will cost \$100,000 to create and test *JOCO Abroad!*. The cost breakdown is as follows:

Creation of outreach with WhitworthBallou	\$40,000.00
Technical analyst to help build the site and process	\$35,000.00
Hardware/Software (servers)	\$25,000.00

The outreach work outlined by WhitworthBallou is under the Management Approach section of this proposal. The technical analyst will be used to help create the site and tools on the site. The technical analyst can work in the office part time for up to a year. The hardware/software will be used to create the site and all of its tools.

# **Conclusion**

In conclusion, *JOCO Abroad!* is a quick, convenient way for UOCAVA voters to participate in the election process. After the creation and testing of *JOCO Abroad!*, many UOCAVA voters will see a reduction in voting impediments. Throughout this proposal, *JOCO Abroad!* has been described as a digital home; a place where no matter where the Johnson County UOCAVA voters travel in the world, they will always have an avenue through which they can make sure their voice is heard back home.

# JOCO ABROAD! Mock up\*



This is just a mockup of what JOCO Abroad<sup>1</sup> could look like. The final version is subject to change.

# **QR Code Mock Ups**







# **Technical Proposal**

Catalog of Federal Domestic Assistance (CFDA) Number: 12.217

BAA Number: H98210-FVAP-11-BAA-0001

<u>Title of Proposal</u>: Proposal to Enhance Capabilities for Washington State UOCAVA Voters

CAGE Code: (b)(4)

DUNs Number (b)(4)

<u>Applicant</u>: Office of Elections, King County, Washington In collaboration with four other Washington counties (Pierce, Clark, Yakima, and Franklin)

Partner Contractor: Everyone Counts

Technical Contract	
Technical Contact:	Laird Hail
	Technical Services Manager
	King County Elections
	919 SW Grady Way
	Renton, WA 98357
	(206) 296-3360
Administrative Contact:	Laird Hail
	Technical Services Manager
	King County Elections
	919 SW Grady Way
	Renton, WA 98357
	(206) 296-3360
Period of Performance:	Date of Award to December 31, 2012

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## **Technical Approach and Justification**

This grant application is being submitted by a group of counties in the state of Washington. This includes the counties of King, Clark, Pierce, Franklin, and Yakima. This consortium of counties will hereafter be referred to as "the participating counties". Not every county will use all of the tools described in this grant application, and the implementation of the various modules described may be at different times based on the counties' elections schedules and workload considerations.

## **Executive Summary**

The participating counties are excited to submit this grant proposal to investigate, evaluate, and field test methods to improve our ability to support our UOCAVA voters. Most of these counties have military facilities within their jurisdiction and significant UOCAVA populations. Based on EAC Survey Findings for 2009, Washington State is the fifth largest state for transmitting UOCAVA ballots. The state of Washington and participating counties are highly committed to ensuring UOCAVA voters are given every opportunity to participate in our democratic process, and have a track record of quality service and continuous improvements to that process. Some of these improvements include:

- 1. Washington has one of the longest intervals from mailing of ballots to the deadline for receipt from the UOCAVA voters (65 days (45 before, 20 after) for General Elections);
- 2. Washington allows permanent registration of UOCAVA voters (i.e. does not require annual registration by UOCAVA voters);
- 3. Washington recently moved the date of its Primary Election to allow sufficient preparation time to meet the 45 day UOCAVA mailing deadline for the General Election;
- 4. Many of the counties have developed email ballot capabilities to provide ballots electronically to UOCAVA voters who have requested such; and
- 5. Washington recently passed legislation to permit UOCAVA voters to return their ballots by email or fax (if accompanied by a signature) without also having to return the hard copy of the paper ballot.

Despite these improvements, and Washington's record of excellent support to UOCAVA voters, there is still much more that can be done to improve military and overseas voters' ability to vote in a timely manner. Although the state of Washington has developed an online ballot delivery system, it does not allow a voter to mark their ballot online and it currently is unable to scale sufficiently to support a county the size of King County (14th largest county in the country).

At the crux of many issues is the current reliance on postal services (USPS, military, diplomatic, and foreign) for the delivery of ballots and other election materials. With many UOCAVA voters serving in remote locations, such as forward operating bases in Afghanistan or at sea, round-trip transit time can take over a month, if not longer.

Individuals deployed at sea may go months without calling at a port and receiving mail. Other voters may be assigned to temporary duty at a location other than their permanent duty station, requiring that postal mail be forwarded, further lengthening the transit time. This leads to a high likelihood that a voter may be disenfranchised because of inadequate time to receive and return their ballot. This situation is further exacerbated if any issues arise with the voter's ballot and the elections office needs to communicate with the voter to resolve the issue, requiring a second round-trip transit of materials – almost guaranteeing that the voter's ballot will not be counted.

Fortunately, there are alternatives to the current system. The ubiquitous nature of the Internet provides for use of technology to provide more real-time support to the UOCAVA voter. Even in areas where postal service is difficult or even non-existence, Internet access is generally available, including ships at sea. Technology presents a considerable opportunity for significant leaps in the ability to provide timely support to UOCAVA voters, increasing their participation in elections, and, more importantly, the success rate of those that do participate.

To this end, the participating counties welcome the opportunity to investigate and use technological solutions to overcome the barriers to full and timely participation by the UOCAVA community and provide better tools to the voter, improving the voter experience.

To assist us in this effort, the participating counties intend to engage the services of Everyone Counts. Everyone Counts is a firm completely dedicated to the use of technology to improve elections processes. They are 100% US owned and have been in the business of supporting elections since 1997. Everyone Counts had the best track record of success in the 2010 election with respect to the previous cycle of FVAP grants.

## **Goals and Objectives**

The participating counties intend to develop a comprehensive solution to address the issues cited above, taking advantage of existing and emerging technologies to engage each voter with a rich voting experience. The participating counties propose to provide the UOCAVA voter with the ability to access their ballot online using any web-enabled computer through the computer's web browser. The voter will have access to their ballot 24 hours a day, 7 days a week for the duration of the voting access period anywhere there is Internet access.

After accessing their ballot, the voter is provided with several options for ballot delivery and return.

## Blank Paper Ballot Delivery

- 1. The voter authenticates with the secure ballot delivery interface
- 2. Voter is provided with their correct ballot style
- 3. Ballot is downloaded, along with the associated oath, envelope template, and return instructions, as required by Washington Law
- 4. Voter marks and completes ballot by hand
- 5. Voter signs the oath
- 6. Voter returns the ballot package by one of the following methods, as approved by Washington Law.
  - a. Postal Service
  - b. FAX
  - c. Scanned and Electronically Mailed PDF

#### **Online Ballot Marking**

- 1. The voter authenticates with the secure ballot delivery interface
- 2. Voter is provided with their correct ballot style
- 3. Voter marks and completes the ballot online
- 4. Voter choices are rendered on the ballot as a digital, 2D bar code
- 5. At this point, the voter has the option to download the ballot and other material or have the ballot delivery system email the ballot and supporting material to the election office.

## **Delivery** Options

	Download, Sign and Return	Electronically Sign and Return		
1.	Bar coded ballot is downloaded, along with associated oath, envelope template, and return instructions, as required by Washington Law	<ol> <li>Voter uploads an image of their signature to the ballot delivery system</li> <li>Ballot delivery system affixes the signature to the oath</li> </ol>		
	Voter signs oath Voter returns ballot package in one of the following methods, as approved by Washington Law: a. Postal Service b. FAX c. Scanned and emailed PDF	<ol> <li>Provide opportunity for voter to review the ballot, as well as the oath with their affixed signature</li> <li>Ballot delivery system emails the ballot, along with the signed oath to the elections office on behalf of the voter using the voter's email address as the "From" addee.</li> </ol>		

## Email Encryption

If the voter chooses to have the ballot delivery system email their ballot, encrypted electronic mail services will be used between the ballot delivery system and the elections office. This secure method of electronic mail delivery addresses a threat identified in NISTIR 7551 (A Threat Analysis on UOCAVA Voting Systems).

## Automated Ballot Duplication

Ballots produced by the ballot delivery system contain a 2D bar code that consists of the ballot style, precinct, and the voter's preferences. This bar code provides an effective and efficient means of duplicating a non-machine readable ballot to a tabulation ready ballot produced by a ballot on demand system.

Without this capability, participating counties could potentially be overwhelmed by the need to manually duplicate thousands ballots returned if our goals for significantly increased participation by UOCAVA voters are achieved. Automated duplication will help to ensure these votes will be included in updated election results as quickly as possible. The bar code contains no personal identifying information. Owners of some smart phones with the appropriate app can inspect the bar code to verify personal identifying information is not contained in the bar code.

Over time and subject to overcoming legislative, certification, and technological challenges, we will pursue additional methods to support the duplication of ballots. We will investigate the upload of bar code data into the certified tabulation system using the same memory card technology used for transfer of voting data from DREs. This will avoid the use of duplicated paper ballots when used with a 2D bar code, further increasing the efficiency of the process.

## **Return Envelope Tracking**

The envelope template contains a bar code with the voter's unique ID. This bar code enables identification of the voter when the ballot envelope is scanned by the sorter when received, flagging the voter in the voter registration system as having returned the ballot.

#### Accessibility

The ballot delivery system is required to be both section 508 (ADA) and section 203 (alternative languages) compliant. An additional benefit of the solution we have chosen is that we will be able to improve our service to the disability community in addition to the UOCAVA community.

#### Integration with existing EMS Systems

The ballot delivery system is required to be compatible with our election management systems (i.e. Dominion's GEMS, Hart's BOSS, Dominion's WinEDS) to reduce the complexity of transferring ballot definition information to the ballot delivery system in preparation for the election. Our partner vendor has already conducted elections with 2 of the 3 EMSs used.

#### Voter Authentication

To validate the authentication of voters, and to ensure that all voters receive the correct ballot style, each voter will be required to log on using distinct credentials. Authentication will be accomplished by the voter entering their first name, last name, and other yet to be determined information that will uniquely identify the voter.

In Washington State, the voter's signature and oath are submitted with each ballot. The signature is considered the authoritative authentication of the voter when the ballot is returned for processing. However, authentication of the voter in the ballot delivery system is required to ensure the correct ballot style is provided to the voter.

In the event that the voter is unable to be located in the voter registration database, they will be asked for their address to determine the appropriate ballot style. If the voter does not know their registered address or the provided address is unable to be located, the voter will be provided with a generic ballot to ensure that they are not disenfranchised.

Participating counties will provide the vendor, Everyone Counts, with an extract of their voter registration database. Initially this will be accomplished with a flat file export, which will be periodically re-exported for the purposes of updating on-going registration activity. As this research project progresses, we will investigate and, if appropriate, implement a more real-time web services-based integration, reducing hands-on file transfer efforts.

## Real-time VRDB Authentication

As a part of our ongoing research, voters who are not found in the county's database will be attempted to be located utilizing a direct link to Washington State's Voter Registration Data Base (VRDB). This will provide maximum flexibility for voters who believe they are registered in a particular participating county when they are in fact registered in different county. Once located within the Washington State VRDB, the voter can then be redirected to the jurisdiction in which they are registered. This integration will likely be late in the grant cycle.

## Election Administration Efficiencies and Common Data Formats

As part of our research, we have chosen to experiment with solutions that could drive down the ongoing cost of the administration of serving UOCAVA voters, while increasing accuracy of the UOCAVA ballots, reducing the potential for human error and serving more voters with their full ballot. Additionally, because this effort will implement Common Data Format, it will make integration of eLect independent of different EMS and voter registration systems.

#### eLect Administration Wizard - Phase 1 (optional)

This functionality would provide the ability for the counties to build their own ballots through an online wizard vs. contracting with an outside vendor (in this case, Everyone Counts) to produce UOCAVA ballots. By selecting this module, the per election administrative fees associated with this activity – and the ongoing per election fees beyond 2012 – could be eliminated and election administration would be streamlined.

#### eLect Administration Wizard - Phase 2

In this phase of the technology rollout, the wizard would be integrated with each specific county EMS and Voter Registration Databases using Common Data Format. Everyone Counts will enhance the wizard for ballot building by allowing for the automated export of data into the eLect Administration tools. This second phase delivers a fully integrated module between the county independent of different vendors' products, all databases used in administering the election and Everyone Counts. This solution also supports the common data format project being sponsored by FVAP.

#### **Common Access Card Authentication**

As a part of our ongoing research, the participating counties will be investigating the use of Common Access Cards (CAC), which are issued to each Department of Defense employee as a form of authentication. This research will require legislation as well as the overcoming of technological and political challenges in order to be accomplished. CAC cards have the potential to provide a more fraud resistant and accurate means of authentication than a signature.

#### **Online Voter Registration**

The state of Washington has developed an Online Voter Registration system (OLVR) to facilitate voter registration. OLVR will be integrated with the ballot delivery system, and will provide all potential UOCAVA voters the ability to register over the Internet. The complete ballot delivery system will also support the completion of the Federal Post Card Application (FPCA).

#### Integration with existing online systems

King County has developed a ballot tracking system that provides all (not just UOCAVA) voters with the ability to track their ballot at three different stages of their ballots life – ballot package mailed to the voter, returned ballot package received by King County Elections, and that the ballot package has been signature verified and approved for counting. The ballot delivery system will provide a link for the voter to access this ballot tracking system. Other counties will either use the vendor's ballot tracking feature or the Secretary of State's ballot tracking system.

To provide as much information to voters as possible, the ballot delivery system will contain links to other features on the Secretary of State's or participating counties' websites such as online voter's pamphlet that provides a tailored guide to candidates and measures on which the voter is eligible to vote.

#### Signature Challenge

In the past, most of the emphasis by FVAP and others has been on improving the timeliness of voter registration, ballot delivery, and ballot return processes. Another area that can cause the voter to be disenfranchised is challenges to their ballot. This can occur if the voter forgets to sign the oath, the signature doesn't match the signature on file, etc. In these cases, counties attempt to

contact the voter and resolve the issue before the certification date so that the individuals' ballot can be counted. However, the same transit time issues that exist for ballot delivery and return also apply for communications concerning challenges. Although the exact method of implementing this capability has not been determined, the participating counties will work with the vendor to develop a process to provide timely assistance to UOCAVA voters with such challenges. The net result, voters will be able to cure their ballot and have their vote counted.

#### Voter Outreach

Participating counties desire to improve our ability to provide outreach to our UOCAVA community. Participating counties intend to use tools and services provided by Everyone Counts to facilitate messaging to UOCAVA voters, including text messaging, email, and other methods.

This messaging capability will allow participating counties to be proactive in communicating with voters. Example scenarios of possible uses include:

- Reminder for voters who have not yet returned their ballot close to the election deadline
- Encouraging voters to vote early, helping manage system load

## Mobile Kiosks

Our vendor has a kiosk solution that they are developing and testing that allows a means of setting up a "voting center" type environment that could be used in areas where there is a concentration of voters (such as a military hospital) or where a unit may be deployed and unavailable during the election period (such as a submarine).

## Help Systems

Although the exact method of implementation remains to be determined, we will implement a robust suite of help features using the resources of both the vendor and the participating counties. This would include:

- 24/7 email and telephone support during the entire voting period
- Online chat support
- Context-specific help and FAQ's

It is expected that the vendor would handle technical issues related to the site, as well as afterhours calls, and participating counties would handle business hour inquiries for election-related items.

To provide a means for improving our implementation and to provide FVAP feedback on research completed, we will include an optional survey for voters to complete.

## **Business** Continuity

To ensure that our UOCAVA community is well served by this system at all times, twenty-four hours a day seven days a week, the vendor will be required to have a robust business continuity plan that will ensure the system remains available in the event of failures of primary servers and communications. This includes proper backups of systems and data, alternate sites in the event of failure of the primary site, and redundant hardware and communications.

In addition, a highly secure (physical and technological) environment will be required to ensure the integrity of the voting process. The vendor will be required to have sufficient capacity to survive high traffic when all jurisdictions have elections at the same time.

## Security

One of the challenges of any effort such as this is to balance the availability and ease of use against the security, integrity, and voter privacy of the solution. To this end, security of our proposed solution is paramount and will be one of our prime criteria in the effectiveness of our project and a key factor in its continuance after the grant period.

All communications between the voters' browser and the server will be secured using a minimum of 256-bit encryption.

If the voter elects to have the ballot delivery system email the ballot back on their behalf, the email shall be sent encrypted using a minimum of 256-bit encryption.

Voter-related data stored on the vendor's system will be encrypted using 2048-bit encryption.

The ballot delivery system shall not retain any record of the voters' selections anywhere on the system, including transaction logs, cache, etc., after the voter has exited the system.

The vendor is required to maintain a physically secure facility using the most secure industry standards for threats against communications and malicious file threats (e.g. highly secure firewalls, intrusion detection, procedures to protect against denial of service attack, anti-virus and anti-spyware applications, etc.).

The copy of the extract of the county's voter registration system will be used for the sole purpose of authenticating voters and will be protected from dissemination to anyone (including internal vendor staff). Ownership of the voter registration data remains with the county and does not transfer to the vendor

# **Evaluation Factors**

## Significance

- Addresses <u>every</u> stage of the voting cycle voter registration, ballot delivery, ballot markup, ballot return, ballot tracking, and challenges after ballot return
- Links to our state's Online Voter Registration (OLVR) system
- Retains FPCA capability with planned effort to integrate with county systems
- Links to county and/or state resources such as online, tailored voter pamphlet
- Links to county or state ballot tracking system
- Provides ability for voter to mark up ballot online 24 x 7 anywhere there is Internet
- Allows last minute UOCAVA voters to obtain and return ballots until 8 PM Election Day
- Provides option for the voter to have the ballot delivery system email the ballot on their behalf using encryption

## Sustainable

- Relatively low annual fees when split between participating counties. When completed, the administrative wizard would eliminate the need for per election fees.
- As a hosted solution, will not significantly increase load of elections staff
- It is anticipated that savings and efficiencies realized from implementation of this system will minimize impact of ongoing costs.
- In the future, some participating counties intend to leverage the capabilities implemented for UOCAVA voters to meet the needs of the disabled community. This would allow us to potentially close some Accessible Voting Centers with remarkable savings, significantly improving the sustainability.

• Some of the features planned for this effort push the envelope. Using the results of this research effort, participating counties intend to seek legislative changes that will allow increased use of electronic means that further ease the burden on UOCAVA voters.

## Impact

- All UOCAVA voters will be eligible to use proposed system.
- Between the participating counties, we estimate there will be a total of 33,500 UOCAVA voters for the 2012 General Election,
  - King 17,000
  - Pierce 12,500
  - o Clark 2,750
  - o Yakima 550
  - o Franklin 250
- The features of this proposal will improve our service to the disabled community, as well as voters with last minute requests for replacement ballots
- At least two county-wide elections (Primary & General) each year, at least one Special election per year (generally county-wide half the time) and the possibility of a second Special election
- Anticipate UOCAVA participation will at least double with the use of this system. Increased voter outreach with further increase participation in future years
- Successful extension to disabled community could potentially allow Accessible Voting Centers to be closed in the future. At the very least, it would reduce pressure to create additional AVCs

# Strategic Approach

- Overall comprehensive, multi-pronged solution that allows the voter a choice of ways to receive and return their ballot depending on their comfort level with electronic systems.
- Use of the ubiquitous Internet with real-time capability to overcome inherent issues with movement of ballots and other materials via a constrained postal system
- Provides access to ballots 24x7 anywhere there is the capability to connect to the Internet
- Testing of several new concepts (such as CAC card authentication and encrypted email return of ballots) that could allow better integrity of the process
- Tests new capability to improve efficiency of processing UOCAVA ballots once received in the elections office through use of 2D bar code technology
- Improves ability to assist UOCAVA voters with previously under-emphasized issue of challenged ballots, which might otherwise go uncounted

## Innovation

- Automated ballot duplication; that is, the ability to translate ballots not compatible with tabulation equipment to tabulation ready ballot using 2D bar-code
- Development of a capability to store data in 2D bar codes to memory cards for direct upload into tabulation system bypassing scanning of ballots
- Use of Common Data Format for integration between eLect and multiple EMS, voter registration systems, and other databases makes eLect more agnostic to other vendors' products.
- Research regarding use of CAC card for authentication

- Option for voter to upload signature image and have the ballot delivery system attach signature to ballot oath and email ballot on behalf of the voter using encrypted email (future)
- Option for voter to upload signature image and have the ballot delivery system and attach to FPCA and email FPCA on behalf of the voter using encrypted email (future)
- 24 x 7 capability of obtaining replacement ballot rather than business hours only
- Kiosks
- Use of messaging capabilities for voter outreach

## Scalability

- The capabilities developed in this effort can be extended to any other county with similar legislative requirements and restrictions.
- The design principals proposed by the participating counties, along with the vendor Everyone Counts, has taken into account the challenges associated with scaling to accommodate additional voters and functionality
- Use of 2D bar code technology on ballots will allow elections offices to absorb significant increases in voters using this system without significant impact on staffing for duplication or tabulation of ballots
- Everyone Counts, using the proven design employed within this grant, has conducted large elections electronically in a number of jurisdictions without any scalability issues
  - Australia March 2011 50,000 Voters
  - o Honolulu May 2011 18,000 Voters

# Collaborative

- King County has collaborated with the Washington State Secretary of State's Office in the development of this concept.
- The goals, objectives, and methods associated with the proposed project have captured the interest of several Washington State counties who are collaborating on this effort. These counties include: King, Clark, Pierce, Franklin, and Yakima.
- The design of our proposed implementation is such that it should be usable by any other jurisdiction that does not have more restrictive statutes.

# Cost Benefit Analysis

A traditional cost-benefit analysis normally compares costs and savings. It is important to note that in efforts like this, benefits are often more qualitative than quantitative. In fact, some of the features discussed may increase costs slightly, but when balanced against the improved service to our UOCAVA voters, increased UOCAVA participation, and the increased probability their votes will count, the slight increase in costs are worth it.

The second important note is that for the most part, features and capabilities proposed in this application are not priced separately, but part of a single license fee/maintenance fee from the partner vendor. The only other costs are per election costs, again for the use of the entire package with costs not broken out by function/capability.

Benefits from use of this system are detailed in depth in the Evaluation Factors subsection above and also in the Performance Indicators, Projections, and Performance Measures subsection under the Management Approach. Costs are detailed in the Budget Section.

#### Schedule and Milestones

This proposal presents a comprehensive and ambitious set of features and capabilities. To increase probability of success, features/capabilities will be implemented in a phased approach. For the first election, implementation will be limited to current and stable capabilities of the vendor's product due to the short time period available for implementation. Newer functionality shall be researched, developed, tested, and implemented during the first six months of 2012 and wherever possible used in the spring special election.

The milestones and schedules below reflect those for the lead county - King County. As previously stated, participating counties may elect to implement various aspects of this proposal at various times as dictated by their own readiness and capabilities, as well as the urgency of the need to meet their own business requirements. Some counties (King in particular) have greater technical resources available for them to apply to this effort. Some counties may elect to wait for other counties to resolve any issues before proceeding themselves. This level of collaboration and support is important and valuable.

The following milestones are very preliminary and subject to change. No analysis of level of effort or discussions of priorities between counties has yet occurred:

2011 General	Standard eLect Platform, eLect Today, and eLect Transcriber capabilities. This will allow counties to establish basic processes in support of this new voting channel as well as gather survey feedback in modifications that may be recommended prior to the 2012 election cycle.
2011 General	eLect Notify (email)
'12 Feb Special	eLect Notify (texting)
12 Feb Special	Pilot with disability community
'12 Feb Special	Envelope voter ID bar code
'12 Feb Special	Mobile kiosks
'12 Apr Special	Enhanced eLect Transcriber using memory cards
12 Apr Special	Encrypted email return option with signature upload
12 Apr Special	Enhanced integration with county voter registration system (dependent on cooperation with county voter registration software vendors)
2012 Primary	Enhanced integration with state VRDB (dependent on ability of Washington State Secretary of State's office to effect necessary changes in VRDB)
2012 Primary	eLect Administrative Wizard Phase 1
2012 General	eLect Administrative Wizard Phase 2
Feb 2012	CAC card authentication (start research, completion very dependent on support from DOD and other federal agencies)

Milestones in the project shall consist of the following for each election during the EASE grant time period:

• **Kickoff Meeting** - the first meeting after the contract has been awarded, during which team members are introduced, stakeholders documented, and key election project properties defined. For subsequent elections, a teleconference meeting takes place to ensure alignment of all parties for that particular election.

- Data Delivery Participating counties provide vendor with data in agreed upon format.
- Election Logic and Accuracy Testing the completion of client User Acceptance Testing, after which the election is locked for voters.
- Election Go Live the first day when voters can vote in the online election (45 days prior to the election for Primary and General Elections and 30 days prior for Special Elections).
- Election Close 8 PM Pacific Time Election Day. No further voting activity. Site remains active for ballot tracking and challenge resolution activity.
- Election Certification In general, 15 days after the election for the Primary and Special Elections and 20 days after the General Election (there are some minor modifications for the 2012 election to accommodate the Presidential year elections and redistricting).
- **Reporting** upon close of the election, the research data will be aggregated and the final report will be written. As stated in the reporting section, reports are available on-demand, at anytime during the election to authorized individuals.

The following is a preliminary schedule for activities to support the 2011 General Election. This schedule is subject to change dependent upon grant award date and execution of a contract with Everyone Counts.

Ð	Task Hame	Start	Finish	3rd Quarter 4th Quarter 1st Quarter 2nd Qu Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr Me
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2	Client Task			
3	Project Phase Segin			
ă	Milestone		i.	
5	- 2011 General Election	8/1/11	1/31/12	
ē,	Contract Awarded	8/1/11	8/1/11	♠, 8/5
7	- Initiation	8/8/11	8/18/11	
8	Kiclioff Meeting	8/8/11	8/8/11	Client, Everyone Counts
9	Job Specification Calls	6/9/11	8/9/11	Client, Everyone Counts
10	implementation Plan	8/10/11	8/10/11	Everyone Counts
11	Project Plan	8/17/11	8/17/11	Everyone Counts
12	- Build	8/29/11	9/6/11	
13	Client Delivers Draft Ballot Date	8/29/11	8/29/11	6/29
10	Client Delivers Initial Voter Registration Data	8/29/11	8/29/11	8/29
15	Draft Election Bulk	8/29/11	9/2/11	Everyone Counts
18	Oraft Voter Registration Credentials Loaded	9/5/11	9/5/11	Everyone Counts
17	- Test	9/6/51	8/21/11	99
18	Everyons Counts Testing and Review	8/6/11	9/13/11	Everyone Counts
19	Voter Registration Database to Everyone Counts	9/13/51	9/13/11	<b>9/13</b>
20	Client Testing and Review	9/14/11	9/20/11	Client
21	Election Logic and Accuracy Testing	9/21/11	9/21/11	ClientEveryone Counts
22	Election Locked for Vaters	9/21/11	9/21/11	<b>9</b> 71
23	- Election	9/24/11	11/8/11	
24	Election Goes Live	9/24/11	11/8/11	la 3/24
25	Scheduled Voter Registration Database Releases	9/24/11	11/8/11	Client
26	Scheduled Voter Registration Database Updates	9/24/11	11/8/11	Everyone Counts
27	Election Maintenance and Reporting	9/24/11	11/8/11	Everyone Counts
28	Election Closes	11/8/11	11/8/11	111/8
29	- Report	11/8/11	11/15/11	रब्स <u>्</u>
30	Final Report, including Measurement sgainst Strategic Goals and Lessons Learned	11/8/11	11/15/11	Everyone Counts
31	- Post Election Support	11/8/11	1/31/12	
32	Election Remains Functional and Available in case of recounts or audits	11/8/11	1/31/12	Everyone Coun
33	Certification of Election Results	11/29/11	11/29/11	▲ 11/25

# **Reports**

Comprehensive reporting will be implemented to monitor and provide analytical tools for all portions of the election management process. This is facilitated by having reports in the following areas:

- On-Demand Reporting Interface
- Logging of Systems Activity (for further analysis)
  - Real-time staffing and process planning by election office
  - Post-Election Analysis of Activity
  - System performance and issue
- Voter Surveys
- Customer Service and Help Desk Log Reports and Analysis
- Project Management Milestone Reporting
- Post-election reports
- UOCAVA Voter available tracking interface

This section is based on currently available reports in Everyone Counts' product suite. During the project planning and implementation phase, additional reports may be requested/required of the vendor. Experience gained through use in actual elections may also drive additional reports to meet the needs of the counties or to satisfy FVAP research needs.

## **On-Demand Reporting Interface**

An on-demand reporting interface will provide real-time access to information regarding the activity of all running elections.

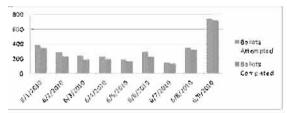
## **Reports** Provided

- Voter Activity: The Voter Activity Report provides insight into system use. This includes:
  - Voting Activity / Hour
  - Voting Activity / Day
  - Total Voting Activity (within date range)
- Voter Participation: This report provides
  - Turnout by District/Ballot Style
  - Other as requested by individual counties
- Voter Locations: Report showing the source location of voting activity. Reports are based on the IP address, and
  - Source City, ie: Los Angeles, United States
  - Source Domain, ie: \_mil, \_gov

# **On-demand Reporting Interface**

Dashboard Lier	tion Management Repor	tine Settions	1	.ogged in as Lori.	Steele <u>Lonout</u>
Regords	Reports > Voter Parti	cipation			
Voter Participation Voter Activity	General Par	ticipation		By Channe	el
Anounits for ballots Attor: steal ballots		e Kaw-Votert 17-1 Hater No Voted 931e			■ Vaters <b>h</b> y Web: 74°-
Comp eter					Phone 26%
Voter locations	District Name	ji <b>bytkin</b> Vistora	Vielas Colt	Votes Gent (We	la Volta Quer Tetra
Cotes sustem Recessed	Chula Vista	56,203	1423 (15%)	38,504 (85%)	38202 (6136)
Deres bellars completed	Geiremant	58,929	1542 (15%)	48,203 (88%)	48203 (71%)

# **Ballots Attempted/Completed**



Typically, the graph spikes around the time of notification emails and reminders.

# Voter Location Report

Country	City	Date	Logins
United States	New York	6/1/2010	377
United States	Los Angeles	6/1/2010	281
Canada	Toronto	6/1/2010	234
Great Britain	London	6/1/2010	228
France	Paris	6/1/2010	182
Germany	Berlin	6/1/2010	288

Canada	Ontario	6/1/2010	182
Japan	Tokyo	6/1/2010	178
		Total	2862

## Data Logging

Everyone Counts uses event logs to archive all administrative and user access within the voting system. No logged data will ever associate a voter with the preferences they have marked on any ballot, ensuring voter privacy.

The following information is logged:

Access Period	This field refers to the period of the election and is customizable. Typically each election has three primary states: Content Review, L&A, and Live. All summary reports provided shall utilize data acquired during the "Live" period	
Time (TimeZone)	This field is the server Date/Time stamp when the event occurred	
Time (System Time)	This field is the Coordinated Universal Time, UTC, represented in POSIX Time	
SessionID	This field is a browser session hash and is the unique identifier for all voters accessing the system	
Event	<ul> <li>This field represents the variety of events logged during each election:</li> <li>User Login</li> <li>User Logout</li> <li>Ballot Accessed</li> <li>Ballot Printed</li> <li>Ballot Submitted (where available)</li> </ul>	
IP Address	This field is either the standard four-part IP address or optionally a hash of the IP Address, intended to ensure voter privacy IP addresses can be used to identify the city of the user that is voting from	

Access Period	Time (Canada/Pacific)	Time (System Seconds)	SessionID	IP Address	Event
Live	19-04-2010 09:06:29	1271693189	817c203c135bad14dc1cbdc203bcd87f	207.229.6.250	User login
Live	19-04-2010 09:09:00	1271693340	3200d91b5f9f77526db200a130762ad3	68.147.223.212	User login
Live	19-04-2010 09:09:46	1271693386	a41b590c0dbf2c311acc28fcc72b871d	208.97.113.34	User login
Live	19-04-2010 09:12:19	1271693539	112819fc8dcb4f19fb056d1aa7c790c4	203.18.176.243	User login
Live	19-04-2010 09:15:05	1271693705	4c00cd4ca30c952f88c20acdf54dc867	208.80.96.57	User login
Live	19-04-2010 09:15:16	1271693716	b742cfff2b14d9cb2394352c25dca8cf	74.198.12.3	User login
Live	19-04-2010 09:17:15	1271693835	176cc37d032cd935a598dc4d4261365f	64.39.171.41	User login
Live	19-04-2010 09:18:42	1271693922	c438782c27a8297c22df6d4c5269df17	199.212.48.2	User login
Live	19-04-2010 09:19:57	1271693997	7eddb3a3633a02ce652c2dbc2119c80d	68.179.94.250	User login
Live	19-04-2010 09:21:16	1271694076	b27d56e7c48a4059cc975dbf1a400caf	96.49.111.135	User login

#### **Data Sample of Logs**

The data sample above represents the first 10 logins during a Live Access Period opening at 9am.

#### Data Analysis

Upon the conclusion of all elections, data will be analyzed to measure the effectiveness of each election.

## FPCA Signup Activity

Reports will be provided to Election Administrators showing signup activity and adoption rate of online-based FPCA sign ups.

#### **UOCAVA Voter-Accessible Tracking of Ballot**

Each voter has the ability to log into the state or county ballot tracking tools to access all available information regarding their ballot. Additionally a voter may be provided with a distinct receipt code at the end of the ballot marking process that may used to ensure their ballot was received by the county. Tracking information includes:

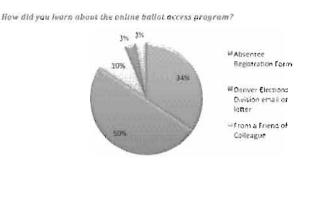
- Ballot accessed
- Ballot printed
- Ballot in-Transit
- Ballot received by County
- Ballot available for tabulation

#### Satisfaction Feedback Loops

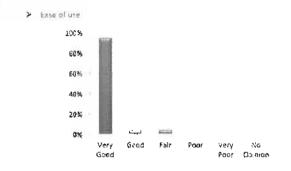
#### Voter Satisfaction Surveys

As a part of each election, voters are asked to complete a voluntary customer survey. These questions are collated and a report generated for each. Below are <u>example</u> questions with

associated responses. Counties will be developing further questions to assist us in improving our UOCAVA operations.



Please rate the following features based on your experience using the unline buildt marking



#### Additionally, free-form questions will be asked, and all responses collated for analysis.

Please provide any additional comments on the online ballot marking tool below:

- This is definitely a great system. Thank you.
- Seems like a great Improvement over the previous mail in ballots. I have received mail in ballots in the past after the election date. This is an improvement, though I still received the mail in ballot by regular mail along with instructions on how to vote online. Seems like it might have been faster/cheaper/easier to receive electronic not'fication rather than regular mail.
- This is by far the easiest way for me to vote as an absentee voter. Fax, email, and mail ballots are all possible but very difficult to complete. This online voting process is easy, keep using and improving it!
- This (online voting) is great. I feel like my vote will be counted without relying on 2 postal systems. Plus it cuts down on paper, which is always a plus.
- None

tool:

- Tappreciate the ability to still cast my ballot as an American temporarily living overseas. Falways felt my mail in ballot never was counted & worried it would not make it in time. I feel my vote will be counted on the day of the election using this method.
- Much more convenient than faxing.
- get but the Online Vote1 No one knew this was possible until 1 got my piece of paper and posted it on Facebook. Thank you Amanda Hill for ALL of your helpt

## Help Desk Statistics

0

Help desk reports provide the following analysis of the amount of activity and usage of help desk systems throughout an election. Help desk reports provided include:

- E-Mail / Chat / Call Distribution
  - Average Hold Time / Delay for Response
    - Number of Calls

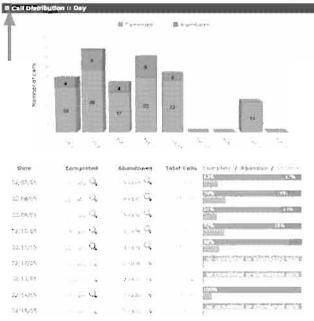
■By Day ■By Hour

- Abandonment Rate
- Symptom Analysis
  - Symptom causing inbound support request
  - Solution Provided

Symptom Analysis Example

Symptom	Resolution	Count
Could Not Login to Voting System	Reset Credentials	38
Forgot Voting System URL	Re-sent URL to Voter	17
Signup Request	Signup user	9
Questions about online voting	Provide documentation	3

# Support Distribution Report Example



# Regression Analysis of Log Data

At the conclusion of each election, all anonymous log data is analyzed for meaningful data to further the research associated with online voting systems. Intelligence is extracted in the following key areas:

- Peak Voter Activity
- Time to complete ballots
  - Time to complete contest (based on length)
- Preferred method of voting
- Number of errors warned
  - Number of errors corrected

## Messaging

Reporting included with eLect Notify (email/text notifications)

- Message Open Rate
- Message Click-Through Rate (if links are included in the message)
- Unsubscribe Rate
- Bounce Report

## **Project Management Reports**

Regular reports on project management milestones, as well as reports regarding financial progress of the project, will be provided to FVAP as key milestones are reached. These reports will address the successes, challenges, and barriers of the implementation and its use.

#### **Management Approach**

The strategic goal of the participating counties is to improve service to our UOCAVA voters through increased use of the Internet that is ubiquitous in nature and reduces the reliance on postal services that are inherently slow in delivery, problematic in handling changes in physical location of voters, and, in some areas, unreliable. The participating counties will accomplish this through several options from which that the voter or county can choose.

This proposal provides for a number of different features and capabilities. King County, and our partner counties, intend to implement or research all capabilities discussed herein. However, not every county will necessarily use all capabilities depending on their processes and needs. Counties vary significantly in size from King County with 1.2M registered voters (12K UOCAVA) to Franklin County with 26K registered voters (200 UOCAVA). Capabilities essential for a large county do not have the same benefit for a smaller county. The counties' staffs and technical support capabilities also vary widely, impacting the ability to implement portions of this proposal.

Implementation of various features and capabilities will be a phased approach to increase the probability of success. Neither the participating counties nor Everyone Counts desires to try too much too soon and repeat some of the lessons learned from the 2010 FVAP effort. Different counties will also implement at different times as their capabilities and needs dictate. Some features (primarily capabilities that already exist and are stable in Everyone Counts' products) will be implemented as early as the 2011 General Election (contingent on grant approval and funding and contract development) to allow maximum time to identify and resolve issues in time for the presidential election in the fall of 2012, as well as solicit feedback from UOCAVA voters. Newer more innovative and futuristic capabilities will be implemented in the 2011 Special and Primary Elections after development and thorough testing. Some of the more advanced capabilities (e.g. use of CAC cards for authentication) may be limited to research and testing due to factors beyond our control (e.g. cooperation needed from other military and federal agencies).

King County selected Everyone Counts as their partner after inviting several vendors to make presentations to its management team about their product's features, capabilities, and plans for the future. All vendors were provided with King County's needs and vision for the future prior to their presentations. After the presentations, the management team selected Everyone Counts as the vendor that best met those needs and vision. Pierce also participated in vendor presentations and decided that partnering with other Washington Counties under one grant application was in the best interest of the County and State. Other counties made their decisions to join King and Pierce Counties based on independent reviews of the solutions available and the projects vision.

King County will take the lead concerning this grant and coordinate activities between the participating counties. A cross county steering committee will be formed with representation from all participating counties to facilitate this coordination, ensure the collaborative nature of this application is maintained throughout implementation, and that all counties are in concurrence with actions taken. Internal county coordination will be up to each county. For instance, King County with a large staff and separate program divisions, will establish an internal management team to coordinate its internal activities. Smaller counties with staffs of as little as three individuals have little need for such an organization. Where appropriate, Everyone Counts will work directly with each county for implementation where coordinate efforts are not required.

If time permits and appropriate arrangements can be made with local military facilities, we intend to use UOCAVA voters currently in the local area who have been deployed in the past to "test drive" our solutions and provide feedback to fine tune our implementations.

## Current Process

Counties receive voter registration requests from UOCAVA voters in several different ways paper forms mailed to our offices, the state of Washington Online Voter Registration (OLVR) system, and the Federal Post Card Application (FPCA). Although not as prevalent, we also receive few registrations via the Federal Write-in Absentee Ballot (FWAB). In the State of Washington, UOCAVA voters do not need to register annually. They remain registered permanently until they no longer meet eligibility requirements.

All active UOCAVA voters are mailed a paper ballot 45 days in advance of primary and general elections and 30 days in advance of special elections. UOCAVA voters who have requested email ballots (either one time or permanent) will be emailed ballots and instruction at the same time paper ballots are mailed. UOCAVA voters can call, email, or FAX requests for an email ballot anytime up to 8 PM on Election Day.

UOCAVA voters have several options for returning their voted ballot to the elections office. They can mail the paper ballot, email the ballot, or FAX the ballot. Until recently, voters who returned their ballot by email or FAX had to also return their paper ballot with the signed oath by the date of certification of the election. This past legislative session, the state legislature passed a bill allowing UOCAVA voters to return their voted ballots by email or FAX <u>without</u> returning their paper ballot <u>if</u> the emailed or faxed ballot was accompanied by a signed oath.

Ballots with problems (e.g. oath not signed, signatures on oath does not match signature on file, etc.) are challenged and every attempt is made to contact the voter to resolve the issue through letters, email (if an email address is on file), and telephone. Unfortunately, many UOCAVA voters cannot be reached in time, due to their remote locations.

## Justification for modification of current processes

The current process is too reliant on a delivery service (postal service) that takes too long to deliver the ballots (or registration requests) both to and from the UOCAVA voter. Additionally, the transient nature of many UOCAVA voters means that additional delivery time is required to forward the ballot to the voters' actual location. This is particularly true of deployed military personnel.

Many UOCAVA voters do not keep their mailing address current with the election office resulting in mail never delivered or delayed even further by forwarding. Nationally, FVAP estimates that 17% of military voters never receive their ballots. Use of the Internet allows the voter access to their ballot and a means of voting <u>anywhere</u> there is access to the Internet anytime after 45 days prior to the elections. Additionally, email addresses have a higher likelihood of remaining current than physical mailing addresses. Even if the physical or email address is no longer current, an interested UOCAVA voter can proactively access their ballot twenty-four hours a day, seven days a week through our partner's (Everyone Counts) services by going through the links available on the FVAP web site.

The UOCAVA voter can immediately return their ballot electronically via several means. A process that previously took several weeks or longer can now be completed and in the election

office in an hour, as early as 45 days prior to the election and up to 8 PM Pacific Time Election Day.

# Proposed processes

To facilitate UOCAVA voter absentee registration, we will use Everyone Counts' eLect Platform to provide a link to the state of Washington's Online Voter Registration (OLVR) system where the voter can provide the required information electronically. Alternatively, voters can continue to complete a FPCA electronically and either print, sign and mail the FPCA to the elections office, or upload a signature and have Everyone Counts deliver it to the appropriate county's election office electronically.

This FPCA method would also be required of individuals that did not meet the requirements for using OLVR (e.g. do not have a Washington State driver's license). A future enhancement to our implementation will be an interface to our state's Voter Registration Data Base (VRDB). This will allow a voter who mistakenly believes they are registered in the incorrect county to determine the actual county in which they are registered.

Forty-five days prior to the election (30 days for special elections), UOCAVA voters will be able to access their ballot through Everyone Counts' eLect Today product. Through the authentication process, they will receive the proper ballot for their registered address. The voter will then have several choices regarding voting and returning their ballot

1) Print a blank ballot, cast their ballot by hand, sign the oath, and mail the paper ballot and oath to the election office by postal service;

2) Use the online wizard to cast their ballot; download the cast ballot, oath, and other materials; sign the oath; and mail the paper ballot and oath to the election office by postal service;

3) Use the online wizard to cast their ballot, download the cast ballot, oath, and other materials, sign the oath, attach the ballot and oath to an email, and email or FAX the packet to the election office; or

4) Use the online wizard to cast their ballot, upload their signature to eLect Today, eLect Today attaches their signature to the oath, eLect Today attaches ballot and oath to an email, and eLect Today emails (encrypted) packet to the election office using voter's email address (This feature is an enhancement to be developed).

eLect Today will print a 2D bar code on cast ballots with the voter's choices embedded, as well as the precinct and ballot style. (<u>Important note</u>: No personal identification information will be included in the bar code, which can be verified using some smart phone apps.)

When ballots are received at the elections office, the elections office will use eLect Transcriber to auto duplicate ballots received into tabulation ready ballots using the 2D bar code. This auto duplication process will save staff hours for handling the increased number of UOCAVA ballots generated by this proposal. A future enhancement we are planning is to develop a means of storing the voter's choices on a memory card (similar to current DRE process), which would be used to upload into the tabulation system, further improving the efficiency of the process.

We intend on using Everyone Counts' eLect Notify product to improve outreach and communications to UOCAVA voters. eLect Notify allows elections officials to send emails or text messages to voters. For instance, this could be used to notify a voter that there was an issue

with their ballot (e.g. forgot to sign) or to warn voters that had not yet returned a ballot and the election date was fast approaching.

Using Everyone Counts' eLect Platform, counties will provide access to various county and state reference material such as online voter pamphlets and ballot tracking. This will allow UOCAVA voters to obtain additional information about candidates and measures. The ballot tracking features will allow voters to verify that the election office has received their ballot.

Everyone Count is developing a mobile kiosk solution (eLect Mobile) that we intend to test for providing service to concentrated areas of UOCAVA voters, such as at military hospitals or local military bases.

Everyone Counts' application is already compatible with 2 of the 3 elections management systems (EMS) that are used by participating counties to develop their ballots and is developing the third. As part of this grant, Everyone Counts will be developing an Administrative Wizard using Common Data Format technology to allow election officials the ability perform some of these tasks themselves and eliminate the per election fee) and to make the process less dependent on other vendors' products.

Initially voter data will be transferred to Everyone Counts' eLect system by flat file, As the project proceeds, we intend to develop more real-time integration between our voter registration systems and eLect Today to ensure the most up to date information about UOCAVA voters is available. This integration could also pass information back about voters who have voted to assist election officials in their staff and resource planning and to update tracking information.

To protect the integrity of data and enhance the secrecy of the voters' choices, participating counties and Everyone Count intend to make maximum use of encryption technology for communication between the voters' browser and eLect Platform, the email transmitted to the election office by eLect Today, and data stored on eLect Platform. If the voter emails the ballot on their own, we will not be able to provide encryption services.

Participating counties are committed to continually improving our service to the UOCAVA voter. To facilitate this effort, we intend to make maximum use of the survey tools offered by the eLect Platform to solicit feedback from the UOCAVA voter and identify areas needing improvement.

Many of the features being developed to provide better services to UOCAVA voter will also permit participating counties to provide better service to other communities of interest, particularly the disabled community. We expect to be able to do this without increased costs. Efficiencies gained by using these tools with other communities can help pay for the services to UOCAVA voters.

# **Risk identification and mitigation**

Risk	lmpact	Prob	Mitigation
Election system vendor is unable to meet the needs of the project on schedule.	high	med	Selected a vendor with a strong track record of success. Manage vendor deliverables with weekly status updates.
Ballot data is finalized with insufficient time to implement online election.	high	high	Integrate online election vendor systems with EMS systems for direct transfer of data. Thorough pre-testing. Timeline same as print vendor.
Will vendor be able to demonstrate system integration with voter registration system?	high	very low	Currently use flat file transfer - well established method for current processes.
UOCAVA voter registration data changes frequently during the course of the election.	low	high	Link to WA state OLVR. Schedule frequent voter registration database updates to vendor in advance.
UOCAVA voters may not have Internet access.	high	med	Continue current practice of mailing paper ballots for those voters
Tight project timescales mean that delays will lead to missed election go live date.	med	med	Limit features/capabilities implemented first election to current, stable capabilities. Selected vendor that has previously stood-up an election on tight timeline.
Ballots of online election contain errors.	high	low	Audit vendor's quality assurance process. Ensure all acceptance, Logic and Accuracy tests are completed successfully before election go live date.
Project subject to malicious electronic attack	med	med	Work to security based on DCA approved and other standards. Create a detailed business continuity and disaster recovery plan.
Submission of multiple ballots by the same voter.	very Iow	high	Control detection and control of multiple ballots at election office using existing controls
Physical security at data center may be compromised	high	low	Maintain security management measures compliant with SAS 70 Type II[T11] defined in the data center service level agreement.

Risk	Impact	Prob	Mitigation
Vendor staff may present a security risk to the project	med	med	Require security checks on vendor employees to assess risk of possibility of such occurrences.
Customer demand for the election services might be larger than anticipated.	med	med	Ensure that the technical system is built to cope with the largest possible demands. IT work closely with sales for capacity planning. Automatic monitoring of system configured for notifications 24/7 should system go outside of expected parameters.
Negative news stories about the new voting methods appear in the local press.	med	high	Engage with local press during the voter engagement campaign and provide them with positive stories and photo opportunities to education them about benefits.
Turnout is low impacting research results.	low	low	Strong UOCAVA voter outreach and messaging program starting well before first election.
Culture change issues may generate negative feelings in internal staff and stakeholders working on the project.	high	high	Start internal promotion of the project as soon as possible after contract agreement. Also provide complete visibility of the service development to end users throughout the process.
Risk that the vendor will not maintain leadership position in fast changing industry.	med	low	Selected vendor with strong track record and committed leadership
Risk that CEO and other key leaders may leave company	med	low	Strong succession planning and employee development program. Cross training. Strong process documentation
Some of the technologies may be new to some election staff	med	med	Limit number of new features/capabilities implemented first election. Ensure staff receives relevant training before they employ their skills.

# Performance Indicators, Projections, and Performance Measures

Note: For purposes of this application process, we have utilized the baseline figures noted below from King County data. Prior to the start of the project, each participating county will develop similar base lines relative to their UOCAVA voters.

# Voter registration

- Increased participation with more readily available electronic access to an online tool, we expect more individuals will be able to register.
- Reduced errors if voters are able to enter data electronically directly to the database, transcription errors (e.g. from illegible handwriting) will be drastically reduced.
- Cost savings if voters enter the data themselves, costs for data entry will be reduced. Costs will be further reduced by increased accuracy, reducing the need for follow-up.
- Expect that voter registrations submitted on paper forms (state registration form, FPCA, FWAB) will migrate to online registrations (OLVR). Forecast that for the 2012 General Election, more voters will register online than use paper.
- Baseline figures for source of registrations:

-	total registrations	State paper form	FPCA/FWAB	online
last 12 months -	793	473	88	232
2008 (presidential	) - 2460	824	125	348

# **Ballot delivery**

- Availability will provide the UOCAVA voter with twenty-four hour, seven day a week access during the 45 day voting period (30 days for Special Elections).
- Ballot Accuracy voter is assured of receiving the correct ballot styles, contests, and candidates specific to their registered address.
- Increased voter participation with a user-friendly tool to assist in voting in a timely manner, expect more UOCAVA voters will exercise their right to vote.
- Guaranteed delivery delivery of ballot guaranteed for UOCAVA voters using eLect Today, whereas ballots sent via postal service may not be delivered due to incorrect addresses, slow service, voter on temporary duty elsewhere, etc.
- Forecast that for the 2012 General Elections the percent of UOCAVA voters obtaining their ballot electronically will double, with that number tripling by 2014 (2010 outreach with survey resulted in nearly doubling percent sent electronically).
- Baseline figures for ballots delivered electronically:

	Total UOCAVA Ballots Issued	Ballots delivered electronically
2010 General -	12757	2704 (21%)
2009 General -	12253	1523 (12%)
2008 General -	12739	1779 (14%)
2007 General -	5841	23 (.3%)
~		**

• Statistics for non-delivery of ballots not available locally.

# Ballot return

- Availability will provide the UOCAVA voter access 24 x 7 during the 45 day voting period (30 days for Special Elections).
- Increased voter participation with a user-friendly tool to assist in voting in a timely manner, expect more UOCAVA voters will exercise their right to vote.

- Improved timeliness with the ability for UOCAVA voters to immediately access ballots when they are available, 45 days before the election (30 days for Special elections) rather than waiting for postal service delivery and return, UOCAVA voters will be better able to meet statutory deadlines. This should eliminate "returned too late" ballots for those that use the electronic ballot delivery system.
- Voter errors since eLect Today will prohibit over-votes and warn about under-votes, voter errors will be virtually eliminated. Ballots completed online will eliminate voter intent issues, as stray marks and non-compliant marking of the ballot will be impossible.
- Ballot tracking UOCAVA can track receipt and acceptance of their ballot by the elections office via ballot tracking link.
- Online voter pamphlet UOCAVA voters will have access to comprehensive information about candidates and measures online through links on Everyone Counts' eLect Platform. Currently, UOCAVA voters generally do not receive voter pamphlets because they are frequently not printed before ballots are mailed.
- Figures for accessing the online voter pamphlets and ballot tracking applications are not currently broken out for UOCAVA voters. Everyone Counts will be asked to capture this data for UOCAVA voters accessing these items via their site.
- Forecast that for the 2012 General Elections the gap between the turnout of UOCAVA voters and the general turnout for the election will be cut in half, and cut in half again for the 2014 General Election.
- Baseline figures for UOCAVA voter turnout compared to overall voter turnout: UOCAVA turnout Overall turnout UOCAVA % of overall

Average '07-'10 General 38.4% 65.1% 59.0%

- Forecast that all ballots that are delivered, voted, and returned electronically will be returned on time.
- Forecast that with use, UOCAVA voters will migrate from printing ballots and mailing them back via postal service, to allowing eLect Today email them back on the voter's behalf. No statistical data currently available for a baseline, but counties will track how voters cast their votes and return their ballots (print blank ballot; mark votes electronically, print, mail back; faxed back; emailed back themselves; or eLect Today emails back) after implementation of the project. Goal is that by 2016, 75% of ballots are returned electronically through email.

# Auto duplication

- Reduced costs lower staff costs and time as manual effort is reduced. As an alternative method for the traditional transcribing of ballot preferences from a voter-submitted 2D barcode to a scannable ballot paper, King County anticipates scanning 2D barcodes directly to a memory card that is readable by a tabulation system directly. This streamlined, alternate method of ballot reproduction will significantly reduce ballot reproduction costs.
- Better accuracy the automated duplication of ballots from the 2D bar code will reduce errors that could occur with a manual duplication effort.
- Scalable auto duplication allows election offices to absorbed increased UOCAVA participation without significantly increasing ballot processing effort and staff. It also allows election offices to expand the capabilities being developed for the UOCAVA community to other communities (e.g. disabled voters) in a cost effective manner.

• There is no baseline figure, as duplication of UOCAVA ballots is not currently needed. Performance in this area will be judged by computing what manual duplication would have cost without auto duplication compared to actual costs using auto duplication.

# **Ballot challenges**

- Improve resolution rate for those participating in the electronic process. Ballots will be returned and processed earlier since ballot round trip transit time is greatly reduced, leaving more time to resolve challenges. With email or mobile phone numbers, UOCAVA voters with challenged ballots can be notified electronically in a timely manner, again leaving more time to resolve.
- Lower incident rate use of the online tool will help reduce challenges in the first place by electronic enforcement of business rules.
- Forecast that the percentage of UOCAVA voters whose ballots are not processed due to unresolved challenges will be cut in half.
- Baseline figures for % of UOCAVA ballots not counted due to unresolved ballot challenges:

Average '07-'10 General 1.23%

# Other

- To measure if voters are having problems using the system, we will track the number of individuals that start to use eLect Today, but abandon the process before completion.
- Will also ask Everyone Counts to report and track statistics concerning system reliability and system and application errors encountered.

# **Financial Management**

As the lead county, King County will be the recipient of grant funds. King County will pay the license fee. King County will work with our partner vendor, Everyone Counts, and the participating counties to develop a model for the disbursement of the variable costs (e.g per election fees) to each county. This model will use in some fashion the number of UOCAVA being licensed as its basis. Similarly, a method will be developed to allocate the ongoing maintenance cost after the grant has expired. Each participating county will provide King County with any information in a timely manner for any reporting and accounting requirements.

King County, with the concurrence of other participating counties, will negotiate payment terms for the license fee with Everyone Counts that will be based on milestone completions rather than a single payment. To further foster our collaboration, a user committee will be established between the counties and Everyone Counts.

# <u>Milestones</u>

Milestones are shown in the Technical Approach section above.

# Current and Pending Project Proposal Submissions

None of the participating counties have any current or pending project similar to the one being proposed in this grant proposal.

# **Qualifications**

# Vendor partner - Everyone Counts

Our preferred vendor for this program brings 14 years of experience and a track record of proven success with projects of a similar nature. A world leader, Everyone Counts uniquely combines election and technology expertise to deliver the most reliable, transparent, secure election solutions for all voters.

100% U.S. owned and based in San Diego, California, Everyone Counts, Inc., is uniquely positioned to ensure that our election can successfully combine America's oldest values with its newest technologies. Their mission is to help election officials deliver reliable and cost-effective universal access to the ballot.

Since 1996, the company's core and primary business has been to provide innovative technology solutions in public and private elections through eLect<sup>™</sup>, Everyone Counts' proprietary family of secure and transparent voting solutions. Their clients have included governments, political parties, labor unions, associations, and private organizations. With local elections expertise on six continents and the highest-integrity end-to-end web-based voting solution in the world, Everyone Counts' elections are accessible, accurate, secure, audit-able, and completely transparent.

# Examples of Relevant Projects

Customer: State of Utah

Point of Contact: Mark Thomas, State Election Director

Period of Performance: 2010 General Election

**Description of project:** Electronic ballot delivery for Utah 2010 General Election; UOCAVA ballots deployed early and seamlessly, coinciding with existing election processes and FVAP project requirements. Ballot marking solution a "success," says Utah Elections Director Mark Thomas.

Customer: Numerous Counties in West Virginia

Point of Contact: Jackie Harris, Policy Director

Period of Performance: 2010 General Election

**Description of project:** Using secure credentials, UOCAVA voters could access, mark and cast their ballot online. Ballots were accessed and cast using military-grade encryption technology, and were decrypted on-site at the local election office where each voter's marked ballot was printed to be included in the count. 100% of surveyed voters said they would use the system again and 95% found the system very easy to use.

Customer: El Paso County, Colorado

Point of Contact: John Gardner, Chief Deputy and Director of Operations

Period of Performance: 2010 General Election

**Description of project:** When El Paso County's assigned vendor for MOVE Act compliance failed to meet their needs for the 2010 General Election, they turned to Everyone Counts. Having provided online ballot marking for El Paso County's 2010 Primary Election, they knew from

experience Everyone Counts could deliver. "Everyone Counts saved the day. We called you on Saturday and four days later you had the election up and available for voters." says John Gardner, Chief Deputy and Director of Operations for El Paso County, Colorado.

Customer: Clackamas County, Oregon

Point of Contact: Sherry Hall, County Clerk

Period of Performance: 2010 General Election

**Description of project:** Clackamas County offered secure transmission of online ballots for UOCAVA voters. "It is an honor to be the first County in Oregon to have the privilege of partnering with Everyone Counts in implementing an online tool for Military/Overseas voters. As Clackamas County Clerk, I want to ensure that the Military/Overseas Vote counts. This system provides a seamless, secure and simplified method to facilitate this process" said Sherry Hall, Clackamas County Clerk.

# Everyone Counts Management

Everyone Counts has built a strong team of professionals who are the best at what they do. Their experience in this innovative area of voting is second to none. Led by the executive team, Everyone Counts is headquartered in San Diego, California and administers elections all over the world.

Lori Steele - Everyone Counts, Inc.- Chief Executive Officer – brings more than 20 years of sound investment management and corporate finance experience to Everyone Counts. In addition, Steele has detailed experience in promoting fair elections and improving voting methods and technologies across the globe. She has built a strong team and led her company to deliver a number of firsts that have enabled innovative voting channels to empower voters, particularly those with access issues and those whose participation rates are low.

Paul DeGregorio - Everyone Counts, Inc.- Chief of Elections – has served in significant policy-making, management, assessment, and training positions for several prominent institutions. In 2006 he served as Chairman of the United States Election Assistance Commission (EAC). As the USA's chief election official, DeGregorio focused on implementing the Help America Vote Act (HAVA) and fostering higher standards for electronic voting, best practices for election officials, and encouraging the use of new technology to serve voters, particularly voters with special needs. From 1993-2003 DeGregorio worked as a technical expert and later as the COO and Executive Vice-President of the International Foundation for Election Systems (IFES). DeGregorio began his career in elections in 1985, when he was appointed Director of Elections for St. Louis County, Missouri.

**Aaron Contorer - Everyone Counts, Inc.- Chief of Products and Partnerships** – spent 10 years at Microsoft where he was an executive on Windows, MSN, and Visual Studio, building and running product-development teams of up to 200 professionals. He helped lead the conversion of MSN from proprietary to Internet standards, and from his early work on Windows networking he holds several patents in distributed systems and network security. At Microsoft, Contorer also served as Bill Gates' technical advisor.

Karen Clakeley – Everyone Counts, Inc.– Vice President of Sales – has more than 20 years progressive experience in building and leading world-class sales, marketing and business development teams for market leading, global companies. Before joining Everyone Counts, Karen led the strategic account planning and client services activities for the nation's largest

producer of printed and electronic customer communications. Karen is results driven and moves fluidly from vision and strategy to implementation and successful achievement of desired results.

**Mike Joyce** – **Everyone Counts, Inc.**– **Senior Program Manager** –For over 8 years Mike has managed and scaled Telecommunications professional services, operational, and sales organizations. Overseeing development, deployment and support of over 10,000 Asterisk PBX systems, Mike specializes in building and organizing highly technical teams through a lead-by-example approach. As a former software development and systems engineer, Mike has a deep understanding of Linux / UNIX, Telecom, Networking and Systems Integration. Mike has designed and deployed customized, highly versatile IVR systems for Governments and Businesses Worldwide. Mike also has a deep background in designing and implementing professional, highly technical training and certification programs.

Jared O'Brien - Everyone Counts, Inc.-Lead Elections Administrator - supervises the successful conduct of all phases of public and private sector elections administered by Everyone Counts; he has worked with clients located in the United States, Canada, Australia and the Russian Federation. Jared has overseen the administration of over 50 elections, including public elections in the US States of Hawaii, Washington, and West Virginia that utilized Everyone Counts' eLect software to provide better voting solutions for electors with disabilities and military and overseas electors. In addition to overseeing the elections conducted by Everyone Counts, Jared brings over 4 years of project management experience. He is a graduate of the University of Southern California.

**Nick Coudsy - Program Manager -** Nick has 15 years of experience in U.S. public sector elections and is a certified Project Management Professional (PMP). He has worked for many years as an election administrator and as the director of training for Los Angeles County, the largest electoral jurisdiction in the USA; and, for Contra Costa County, California. Nick, who is an election hardware and software specialist, was also a Project Manager for Premier Election Solutions for three years, focusing on serving their California and Washington State clients, particularly on the implementation of new voting systems and certification. Nick is an alumni of Loyola Marymount University, and has performed graduate work at the H. John Heinz III School of Public Policy at Carnegie Mellon University.

# King County Elections (Lead county)

King County Elections has been recognized nationally as a leader in the development and implementation of innovative processes and use of technology in elections. Elections managers from across the country visit King County to view and discuss our processes. King County Elections is the recipient of an 2006 NACRC Best Practices Award for its mail ballot reconciliation process. In 2010, King County Elections was recognized by CIO Magazine as one of the top 100 organizations for innovation in the use of technology. Also in 2010, the National Association of Counties (NACo) honored King County Elections' Vote-by-Mail implementation with an Achievement Award for innovative county government programs.

# Sherril Huff - Director

Sherril's election administration experience spans 30 years. She served two terms as the elected Auditor of Kitsap County and was elected in 2009 as King County's first elected Elections Director having previously serving as King County's appointed Elections Director. In 2009, Sherril was recognized as the Washington State Auditor of the year.

Throughout her time at King County, Sherril has championed significant reforms and partnered with staff to propel King County Elections as a leader in mail voting. Under Sherril's leadership, King County Elections received a national award for its mail ballot reconciliation efforts and implementation of quality assurance best practices in August 2006. King County was also the first county in Washington to allow election candidates to file for office online using banking industry encryption technology. She oversaw hundreds of election reforms and developed an outreach program to hire a new generation of technologically-savvy poll workers to run new, federally required, voting equipment at the polls. In 2011, Sherril the King County Elections staff were recognized for her outstanding efforts to increase voter participation through outreach efforts.

# Laird Hail -Technical Services Manager

Laird has served as Technical Services Manager for King County Elections for five years managing all technical aspects for the agency. Laird has a total of 22 years experience in information technology having served as Director of Court Technology for the Municipal Court of Seattle and several IT management positions with the U.S. Coast Guard before coming to King County Elections. Laird also has an appreciation for the plight of the UOCAVA voter having served in the U.S. Coast Guard as a senior officer for 26 years including 12 years either overseas or deployed on ships at sea.

# **Evelyn Arnold - Superintendent of Elections**

Evelyn has a total of 21 years experience in managing elections. She has served for the past year and a half as the Superintendent of Elections for King County overseeing Voter Registration, Ballot Processing, and Elections Operations programs. Prior to coming to King County, Evelyn served as the elected Auditor for Chelan County, Washington for 19 years including management of elections. Evelyn is a Certified Elections and Registration Administrators (CERA) and also a Certified Public Accountant.

# Travis Elsom - Project Manager

Travis has 14 years of IT experience as well as a year of elections operational experience in all aspects of conducting elections. In his current position, Travis provides support to both voter registration and tabulation operations. As a member of the project team that selected and implemented King County's voter registration system, Travis provided technical oversight and coordination including specification development, vendor coordination, data migration, testing, and training. Prior to joining King County Elections, Travis was a systems network engineer with a data center. Travis is a Washington State Certified Elections Administrator.

# **Elections Management Team**

Members of the management team that will be significantly involved in this effort include:

Anthony Harris - Quality Control Manager Jacqueline Timmons - Voter Service Program Manager Rene Lebeau - Ballot Processing Program Manager Sandy McConnell - Election Operations Program Manager

These program managers bring the operational experience of the elections processes to this project. Each has been in their position for at least four years with each having significant additional experience in elections before assuming their current roles. All three program managers are Certified Elections and Registration Administrators (CERA).

Budget Proposal		
Direct Labor		
Project Manager (@ 15% FTE)	\$12,300	
Project Manager (@ 33% FTE)	\$ <u>27,300</u>	
		\$39,600
Administrative and clerical labor		
Budget Analyst (@ 10% FTE)	\$9,000	
Fiscal Analyst (@ 10% FTE)	\$ <u>5,500</u>	
		\$14,500
Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.)		
Project Manager (@ 15% FTE)	\$4,700	
Project Manager (@ 33% FTE)	\$4,700	
Budget Analyst (@ 10% FTE)	\$1,600	
Fiscal Analyst (@ 10% FTE)	\$ <u>2,600</u>	
		\$13,600
Travel		
• Two trips for 2 to Washington, DC for program review/report out	\$4,000	
<ul> <li>Two trips for 4 (2 ea from 2 counties) to San Diego, CA for technical consultation, design review, etc.</li> </ul>	\$ <u>5,200</u>	
······, ····, ····, ····,	~ <u></u>	\$9,200

# Subcontracts/sub awards

Item	Cost	Frequency	Total
Software Licensing Fees (40,000 UOCAVA Voters and 5 Counties) online ballot marking and automated ballot remaking, help desk	\$115,000	One Time Fee	\$163,000
Election Administration Fee: Election Configuration and Ballot Build	\$6,000	Per Election, Per County 2011: 1 per county (3 counties) 2012: 4 per county	\$18,000 \$120,000
eLect Administration Wizard Customization, Activation, Testing Configuration, and Integration	\$120,000	One Time	\$120,000

FPCA Integration w/ County VR database	\$25,000	One Time	\$25,000
Ballot on Demand Software and Hardware (see notes)	\$220,00	One Time	\$220,000
Mobile Kiosks	\$4,000	Per Unit	\$8,000
eLect Notify	(See notes)	Per Election	\$23,000
Total (Other Direct Costs)			\$697,000

# **Consultants**

None

# Materials and Supplies

Scanners (for eLect Transcriber)	\$500
Other Direct Costs	
Voter outreach to inform UOCAVA voters of new services and gather email addresses	\$50,000

Total Budget

\$824,400



# STATE OF LOUISIANA

# DEPARTMENT OF STATE

TOM SCHEDLER SECRETARY OF STATE P.O. Box 94125 Baton Rouge, LA 70804-9125

Louisiana MOVEs Forward Technical Proposal

CAGE Code: (b)(4) DUNS Number: (b)(4)

Catalog of Federal Domestic Assistance Number: 12.217 BAA Number: HQ0034-FVAP-11-BAA-0001

> Technical Contact: Chrissie Weatherford (chrissie.weatherford@sos.louisiana.gov) (225) 925-4793 / (225) 922-2179 FAX

Administrative/Business Contact: Carol Guidry (cguidry@sos.louisiana.gov) (225) 362-5142 / (225) 922-1180 FAX

Contractor: Gregory C. Rigamer & Associates, Inc.

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## TECHNICAL APPROACH AND JUSTIFICATION

#### Executive Summary

The State of Louisiana maintains a statewide voter registration database and runs a statewide election system that consists of DRE voting machines and digital scanning equipment for counting absentee ballots. The State works in conjunction with local election officials to conduct each election. Louisiana's statewide voter registration system, "ERIN" (Election and Registration Information Network), is maintained at the state level with real time data input at the local level by each parish Registrar of Voters. Programming for ERIN is created at the state level. While we have been fortunate to have had ERIN since 1987, upgrades to ERIN and its functionality have been a top priority for the State and local election officials. Not only do the local Registrars of Voters enter data to populate ERIN, but local Clerks of Court use ERIN to qualify candidates for office and to enter data to pay Election Day poll workers. Numerous reports and statistics are generated from ERIN for use by local election officials and the general public for research and campaign information.

Without additional federal funding for the implementation of the Military & Overseas Voter Empowerment (MOVE) Act, the State was limited in providing for electronic functionality for voter registration and absentee voting by our military and overseas citizens. Louisiana has developed an on-line voter registration system that allows an eligible person with a Louisiana driver's license or a special identification card to complete a voter registration application on-line. In addition, our military and overseas voters are able to request an application to register electronically, to request and receive an absentee ballot electronically 45 days before a federal election, to vote using the federal write-in absentee ballot, and to electronically track their ballot.

Funding through this grant would allow the State to conduct research and testing for new functionality of ERIN to expand electronic options for military and overseas voters. The State plans to team with local election officials from various size and geographical jurisdictions to study, research, document all processes, report, and recommend procedures for additional electronic functionality for our military and overseas voters, including the following:

1. ability to request an absentee ballot electronically;

2. ensure ballot security through sophisticated encryption;

3. provide testing for online ballot marking with summary review screens to prevent over or under votes;

4. provide testing for 2D bar coding of returned ballots for conversion and/or reproduction of a marked ballot for digital scanning; prove testing for smart phone ballot marking and delivery; and

5. provide testing of pre-populated Federal Post Card Application submissions with an electronic request for voting materials and ballots.

## Goals and Objectives

It is the State of Louisiana's goal and objective to provide for advanced electronic voting opportunities for our military and overseas citizens as follows:

1. add the ability to our ERIN system through our website for our military and overseas citizens to request an absentee ballot electronically, similar to our present on-line voter registration system,;

2. test submission of a Federal Post Card Application, pre-populated with a request to receive voting materials and ballots electronically for our military and overseas voters;

3. improve the security of ballot transmission to military and overseas voters through utilization of more sophisticated encryption to ensure the security of the ballot;

4. test online marking of ballots for our military and overseas voters and the prevention of over or under votes and provide a summary screen to review and change vote selections (similar to touch screen DRE voting machines);

5. test 2D bar coding of returned ballots from military and overseas voters to be able to convert and/or reproduce a marked ballot for digital scanning, rather than hand count; and

6. test smart phone applications for ballot marking and delivery for the military and overseas voters.

#### Schedule and Milestones

The State of Louisiana plans to conduct a research phase to ascertain available best practices currently in use in other states and jurisdictions, to understand all methods used to successfully test and improve functionality of systems similar to Louisiana's Elections and Registration Information Network (ERIN), and to then be able to develop the research methodology and research instruments to be used in ERIN. A data collection, analysis, and findings phase will then be implemented by the state with a complete documentation of the processes and practices, including findings, recommendations, and deliverables for all new processes. The State will conduct a design and development phase to fully develop new processes and tools to complete the new process and then conduct a testing phase by working with the local election officials to test and allow the state to determine an analysis of the cost/benefit, effectiveness, efficiency, and usability of the new tools, processes, and practices. And the last phase will be for the final documentation of findings and recommendations needed for implementation of all new processes statewide.

Through this project the State plans to provide an advanced electronic absentee balloting program for military and overseas voters that could be used by a centrally maintained state or local jurisdiction election system for the November 2012 General Election.

## **Reports**

In accordance with 32 CFR 33.41, the State of Louisiana will submit the required Federal Financial Report (SF 425) in accordance with instructions provided by the Department of Defense, Defense Human Resources Activity – Federal Voting Assistance Program. In addition, the State will submit narrative progress reports as required by the grantor.

The State of Louisiana will prepare a final report that documents the findings, tools, processes, and practices needed for implementation of the electronic absentee ballot voting system for military and overseas voters. The report should contain a cost analysis for both manpower and tools needed to complete the electronic absentee ballot voting system. The report will also include any recommendations for changes to existing laws.

## MANAGEMENT APPROACH

The project director for this program will be Chrissie Weatherford (Information Technology Director for the Louisiana Department of State). She will be responsible for overseeing all activities performed by contractors or third party vendors.

The State will amend its existing contract with Gregory C. Rigamer & Associates, Inc. (also referred to as GCR & Associates, Inc.) who has worked with the State for the past five (5) years researching, designing, and building improvements to Louisiana's statewide voter registration system (ERIN), along with other projects. This contractor has demonstrated a high level of expertise and innovation in designing and improving the State's electoral processes and outcomes.

In addition, the State may seek the services of a third party vendor to assist with the design and development of the electronic absentee ballot system for military and overseas voters.

All other work (accounting, supervisory expenses, printing, etc.) performed by the Louisiana Department of State will be paid through State General Funds.

#### Current and Pending Project Proposal Submissions

Currently, the State of Louisiana Department of State has received federal funds from the U.S. Election Assistance Commission (EAC) for election administration and the U.S. Department of Health and Human Services (ADD). Both federal grants were authorized through provisions contained in the Help America Vote Act (HAVA). There are no other continuing contracts, grants, or other assistance agreements.

#### Qualifications

All services performed under this grant will be conducted under the supervision of Chrissie Weatherford (Information Technology Director for the Louisiana Department of State). She will provide guidance to all contractors and third party vendors.

Any contractual services to be performed by Gregory C. Rigamer & Associates, Inc. will be performed by the following key personnel (See Attachment #1 for resumes of key personnel):

- 1. James Darragh, Senior Systems Architect/Project Director;
- 2. Angele Romig, Subject Matter Expert/Business Analyst;
- 3. John Koehl, Developer/Senior Developer; and
- 4. Raymond Ceasar, Subject Matter Expert/C.P.A.

All other work (accounting, supervisory expenses, printing, etc.) performed by the Louisiana Department of State will be paid through State General Funds.

## BUDGET PROPOSAL

#### Itemized Budget

## Subcontracts/Sub Awards:

The State will amend its existing contract with Gregory C. Rigamer & Associates, Inc. (also referred to as GCR & Associates, Inc.) who has worked with the State for the past five (5) years researching, designing, and building improvements to Louisiana's statewide voter registration system (ERIN), along with other projects. The proposed amount for the contract is \$275,000. Under the provisions of the contract, we make payment based upon the hourly rate of compensation for each employee. This amount of compensation includes the overhead expenses for the contractor. The hourly compensation rate for the key personnel listed above is:

Į.	James Darragh	\$115.00
2.	Angele Romig	\$115:00
3.	John Koehl	\$115.00
4.	Raymond Ceasar	\$115.00

# **Other Direct Cost:**

The State may choose to procure a software package from a third party vendor who has developed a package that would perform the following functionalities:

- 1. improve the security of ballot transmission to military and overseas voters through utilization of more sophisticated encryption to ensure the security of the ballot;
- test online marking of ballots for our military and overseas voters and the prevention of over or under votes and provide a summary screen to review and change vote selections (similar to touch screen DRE voting machines);
- 3. test 2D bar coding of returned ballots from military and overseas voters to be able to convert and/or reproduce a marked ballot for digital scanning, rather than hand count; and
- 4. test smart phone applications for ballot marking and delivery for the military and overseas voters.

The projected cost for this software package is \$75,000. Once the State has evaluated all available software packages that have been developed, the State will procure the software package and then modify it to work with the ERIN system.

The total request for the State of Louisiana under the Electronic Absentee Systems for Elections for military and overseas voters is \$350,000.

#### Return of Investment

According to the EAC Executive Summary report based upon the 2008 Election Administration and Voting Survey submitted by states, "States reported transmitting nearly 1 million ballots to UOCAVA voters, and 69.0 percent were returned and submitted for counting". In 2008, Louisiana had 9,221 UOCAVA voters who transmitted their ballots and 6,086 were counted. Louisiana percent of voters who returned their ballots and had their ballots counted was 66.0% which is close to the national average. However in 2010, the percent of UOCAVA voters who transmitted their ballots (16,267) and had their ballots counted (2,165) were 13.3. In Louisiana, the percentage dropped 52.7% even though the number of UOCAVA voters transmitting ballots increase by 7,046 voters. From these statistics, Louisiana believes that more military and overseas voters desire to exercise their right to vote; however, there are difficulties in the system that needs to be addressed to make it easier for the UOCAVA voter to cast an absentee ballot that is accurately marked and is capable of being counted. Louisiana UOCAVA voters will reap the benefits if this grant is awarded. In addition, it is Louisiana's desire to share data and processes with other states and local governments to aid military and overseas voters through an electronic absentee voting process.

# ATTACHMENT #1

# GREGORY C. RIGAMER & ASSOCIATES, INC.

# KEY PERSONNEL

# Jim Darragh, Ph.D

Position: Project Director Title: Senior Systems Engineer

Since joining GCR in 1997, James Darragh, Ph.D. has been responsible for designing and implementing multiple systems which address mission critical applications for both governmental as well as corporate interests.

Dr. Darragh served as the Director of GCR's technology services division until 2005. During that tenure he was responsible for overseeing all of the firm's developmental initiatives, hiring technology talent, and reviewing product deliverables. Beginning in July 2005, Dr. Darragh assumed supervision and management of GCR's work for the Louisiana Department of State.

He has over thirty years experience in the design of applications for a wide range of user requirements. From voter registration and elections systems to court docket management systems Dr. Datragh designs complex data management applications to solve real world challenges.

#### **Relevant Project Experience**

Application: Elections and Registration Information Network – ERIN Application Type: SQL Server 2008, .NET Win Form and Web Form applications. Customer: Louisiana Secretary of State

Description: This application manages all voter registration and election related tasks such as poll lists, absentee voting, polling places, and election costs. The system is a conversion (with enhancements) of the state's 20 year old AS400 system. Enhancements included several important process improvements: more robust handling of absentee voting to allow multiple absentee ballots to be sent to a voter, the ability to redistrict at any time including during an election, and the means to maintain a voter's history of registrations and address changes.

Project Role: Dr. Darragh was the project manager and principal system architect. He was a member of the requirements team that documented legacy system functionality and new ERIN system requirements. He designed the new ERIN system database, functional architecture, legacy data migration and validation, and startup procedures and system integrity validation. He managed the technical staff and oversaw the project quality control and testing. Dr. Datragh was the principal communicator with the client.

#### Application: Louisiana Election System - LASOS

Application Type: SQL Server 2008, .NET Win Form and Web Form applications. Customer: Louisiana Secretary of State

Description: LASOS manages all election related information such as candidates, propositions, ballot items, election results, and run-off-races. GCR converted the AS400 Elections system and integrated it with the SQL Server/, NET Elections and Registration Information Network (ERIN) system. This new integrated system provides flexible, robust, and powerful capabilities for managing the entire election process.

Having integrated data. elections/candidates/ballots and voter/precinct, provides significant improvement for the Elections staff to better manage elections.

# RESUME

#### EDUCATION AND TRAINING

Ph.D., Mathematics, 1974 Northwestern University Evanston, Illinois

B.A., Mathematics, 1967 California State University at Long Beach Long Beach, California

Microsoft Trained in .NET development and OLAP

#### TECHNICAL SKILLS

Database Architecture and Design, Normalization, Program Architecture and Design, Object Oriented Design

#### SOFTWARE

Microsoft Office Suite, Visio, Excel

#### DEVELOPMENT Environment/languages

SQL Server, Visual Basic .NET, Visual Basic, C, C++, Clipper, Novell

#### OS PLATFORMS

Windows NT, 95/98, 2000, XP

Project Role: Dr. Darragh is the senior project adviser and principal system architect. He is a member of the requirements team that documented legacy system functionality and new LASOS system requirements. He designed the new integrated ERIN-LASOS system database, functional architecture, legacy data migration and validation, and startup procedures and system integrity validation. He assisted in managing the technical staff and overseeing project quality control and testing. Dr. Darragh is a principal communicator with the client.

Application: Louisiana Commercial Online Registration Application - CORA Application Type: SQL Server 2008, .NET Win Form and Web Form applications. Customer: Louisiana Secretary of State

Description: CORA manages the recording and filing of all documents required for an entity to do business in the state of Louisiana. An entity submits information through the online application and the information is processed, imaged (TIF) and stored in the database for searching and retrieval. Hard copy documents are scanned and stored in a SharePoint repository and are associated with the recorded information using a unique Image Identifier.

A web-based part of the application allows customers to search information in the database, view documents, file information online, and order certificates and reprints of filed documents. This complex application involves several third party products and innovative technical solutions (image management, Share Point, faxing, emailing, web delivery of documents).

Project Role: Dr. Darragh was the senior project adviser and principal system architect. He is a member of the requirements team that documented legacy system functionality and new CORA system requirements. He designed the new integrated CORA system database and assisted in the functional architecture, legacy data migration and validation, startup procedures, and system integrity validation. He assisted in managing the technical staff and overseeing project quality control and testing. Dr. Darragh was a principal communicator with the client.

# RESUME

# RESUME

# Angele Romig

Position: Business Analyst

Title: Subject Matter Expert

With twenty-three years of business analysis and project management experience at GCR, Ms. Romig has participated in an array of landmark projects for the firm. As a project director Ms. Romig has worked in a team environment to structure strategic solutions to address complex client needs. She has conducted research in the accumulation of data for urban planning projects, public outreach initiatives and statewide reporting efforts and has led strategic work process review initiatives. Ms. Romig has successfully worked with colleagues to develop inventory based systems for governmental and institutional clients.

Over the past several years, Ms. Romig has been project director for the State of Louisiana Elections Registration Information Network (ERIN), the Secretary of State Commercial On-line Registration Application (CORA), and the Louisiana State Land and Building System (SLABS) redevelopment project. In addition to project specific assignments, Ms. Romig is a highly experienced Project Manager who understands the importance of defining a project, managing its resources and challenges with appropriate controls, and achieving client satisfaction. In practical experience, Ms. Romig has conducted many business evaluations and assessments for clients to document existing practices and work flows and to subsequently offer recommendations for improved efficiency and performance. From corporate best practices to project management for large-scale projects, Ms. Romig's work and dedication has promoted GCR's mission of client satisfaction and excellence.

#### **Relevant Project Experience**

Application: Elections and Registration Information Network – ERIN Application Type: SQL Server 2008, .NET Win Form and Web Form applications. Customer: Louisiana Secretary of State

Application: Louisiana Election System - LASOS Application Type: SQL Server 2005, .NET Win Form and Web Form applications. Customer: Louisiana Secretary of State

Application: Louisiana Commercial Online Registration Application - CORA Application Type: SQL Server 2008, NET Win Form and Web Form applications. Customer: Louisiana Secretary of State

Application: State Land and Building System (SLABS) Application Type: SQL Server 2008, .NET Win Form and Web Form applications. Customer: Division of Administration, State of Louisiana Description: GCR partnered with the Office of Information Services (OIS), the Office of Facility Planning and Control, and the Office of Risk Management to develop the State Land and Building System (SLABS). SLABS is the State's repository of information on properties and buildings in which the State has an active ownership or leasehold interest as well as the conveyance documents associated with these holdings.

#### EDUCATION AND TRAINING

M.P.A., Public Administration, 1986 Ourso School of Business Administration Louisiana State University Baton Rouge, Louisiana

B.A., Political Science, 1984 Louisiana State University Baton Rouge, Louisiana

# John Koehl

Position: Senior Developer Title: Developer

Mr. Koehl is an expert in Visual Studio .NET and has extensive experience with Team Foundation Services, creating workflows for both. Mr. Koehl's education and experience in DB design, maintenance, tuning and conversions is also substantial. He is an expert in the windows environment with competency in several web environments.

Since November 2005, Mr. Koehl has worked onsite in Baton Rouge on the rewrite of the ERIN voter registration system for the Louisiana Secretary of State, serving as lead developer, technical lead, and project manager. On this project, Mr. Koehl developed software to implement the following disaster-recovery functions:

- Identify displaced voters (and their new address if possible) for mailings
- Send letters to displaced voters that had registered to vote in other states.
- Develop new "Provisional" voter type so that displaced voters could still vote in elections.

Prior experience includes:

- Senior developer/technology development manager
- System and database architect utilizing UML
- Server and nerwork administrator
- Managed a team of programmers for a college sports website product
- Designed, built and maintained large scale n-tier applications.
- Implemented strategies for team to work together effectively and efficiently
- Customer service for major clients
- Imports and exports of web based data

#### Relevant Project Experience

Application: Elections and Registration Information Network – ERIN Application Type: SQL Server 2005, .NET Win Form and Web Form applications. Customer: Louisiana Secretary of State

Application: Louisiana Election System - LASOS Application Type: SQL Server 2005, .NET Win Form and Web Form applications. Customer: Louisiana Secretary of State

Application: State Land and Building System Application Type: SQL Server 2005, .NET Win Form and Web Form applications. Customer: Division of Administration, State of Louisiana

# RESUME

#### EDUCATION AND TRAINING

MBA, Concentration in Management of Information Systems, 2006 Southeastern Louisiana University Hammond, LA

B.A., Business Admin, Information Systems/Decision Sciences, 2001 Louisiana State University Baton Rouge, LA

#### SOFTWARE

C++, Microsoft Foundation Classes, Visual Basic, VB,NET

#### DATABASE DEVELOPMENT ENVIRONMENTS

Microsoft SQL Server, MySQL, Oracle, DB2, Microsoft Development Environment, Informix, Sybase, VSAM, T-SQL, Data Transformation Services

#### WEB DEVELOPMENT TOOLS

ColdFusion MX, Microsoft SQL, MySQL, C, C++, ASP, ASP.Net (VB.Net and C#), PHP, HTML, XML, CSS, JavaScript, Windows Server 2003, UML

# Ray Ceasar, CPA

Position: Auditing Specialist

Title: Certified Public Accountant

With over thirty years of experience in accounting, finance, inventory management, tax and information system design, Mr. Ceasar offers GCR a unique combination of business experience and computer/technical expertise. Mr. Ceasar has also designed and developed customized property and contract management systems allowing clients to manage contracts and property leases for large-scale facilities. Within the framework of these business processes, Mr. Ceasar brings an auditor's training to the benefit of the product design and development. Mr. Ceasar leads a team of qualified project managers and programmers, who execute rapid development of facility and accounting management softwate packages. Industries of experience include governmental bodies, airports, non-for-profit organizations, real estate investment, and utility companies.

#### Relevant Project Experience

Application: PMBS (Property Management and Billing System) Customer: San Francisco Airport Authority

Description: This system is used by airports for agreement management, contact list management, activity statistics, space management, utility usage, tenant billing and accounts receivable tracking. It also integrates several systems within the San Francisco Airport including aircraft parking, shared tenant services, AVI (automated vehicle information system), and accounting general ledger system. Project Role: Mr. Ceasar was project ditector and guided the application design.

## Project: Airport IQ Business Manager (ABM)

Customer: Currently implemented ät ten U.S. commercial airports Description: Like the other components of Airport IQ suite of aviation software applications, ABM is the next-generation/successor to GCR's successful Airport Information Management System (AIMS), providing commercial airports operators with the advantages of web accessibility and .NET Framework technology in the management of all aspects of airport business operations. Modular in design for flexibility in meeting each airport's specific needs, ABM provides features to address:

- Agreement Management Space Management
- Rates and Charges
- Billing
- Accounts Receivable
- Activity Statistics
- Contact Management

Project Role: Mr. Ceasar is Product Director and Project Manager.

# RESUME

#### EDUCATION AND TRAINING:

B.S., Accounting, 1977 University of New Orleans New Orleans: LA

#### CERTIFICATION:

Licensed Louisiana Certified Public Accountant since 1978 Certified by Solomon IV Software

#### DEVELOPMENT ENVIRONMENT/LANGUAGES:

Microsoft Office, Visual Basic for Applications, SQL Server, D82, Oracle, VSAM, Access 2.0, Access 97, Access 2000, Access 2002, Excel Lotus 1-2-3, DBase, MS Word, MS PowerPoint, Internet application development, direct mail applications, postal bar coding

Security

GIS-based Mapping

Utility Management

Revenue Management

Intelligent "To-Do" Alerts



# STATE OF MAINE

# Electronic Absentee Systems for Elections (EASE)

# Volume 1 Technical Proposal

- 1. Catalog of Federal Domestic Assistance Number: 12.217
- 2. BAA number: H98210-BAA-11-0001 (Supersedes: HQ0034-FVAP-11-BAA-0001)
- 3. Title: Improve UOCAVA Absentee Voting Using the Vote-By-Phone System
- 4. CAGE Code: (b)(4)

DUNs Number: (b)(4)

5. Applicant: Secretary of State Contractor(s): IVS, LLC

6. Technical contact: Katharine Moore Bureau of Corporations, Elections and Commissions 101 State House Station Augusta, ME 04333-0101 Phone: 207-624-7658 Fax: 207-287-5428 Email: Katharine.Moore@maine.gov

- 7. Administrative/business contact: Julie L. Flynn, Deputy Secretary of State Bureau of Corporations, Elections and Commissions 101 State House Station Augusta, ME 04333-0101 Phone: 207-624-7736 Fax: 207-287-5428 Email: Julie.Flynn@maine.gov
- 8. Proposed Period of Performance: August 2011 through August 2012

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# 1.1 EXECUTIVE SUMMARY

# <u>Purpose</u>

The purpose of this proposed solution is to adapt the existing accessible Vote-by-Phone system to allow UOCAVA voters to vote from anywhere in the world, provided they have access to a standard touchtone telephone. The benefits to the UOCAVA voters are as follows:

- Voters can review their ballots by phone as early as 60 days prior to Election Day;
- Voters can cast their absentee ballots at least 46 days before Election Day;
- Voters can vote their absentee ballots as late as 8:00 p.m. EST on Election Day;
- After voting, the voted ballots are immediately in the custody of election officials; and
- UOCAVA voters with disabilities may vote privately and independently.

By extending the functionality of the Vote-By-Phone system, the following UOCAVA service issues will be addressed:

- Increase the rate of returned and accepted UOCAVA absentee ballots;
- Provide an alternative method of electronic ballot issuance and return for voters who may have limited access to equipment, such as printers, fax machines, and scanners; and
- Promote alternate methods of ballot delivery and return as a viable substitute for postal mail, which can be problematic in some regions of the world.

# Proposed Solution for UOCAVA Voters

The proposed solution will be based on the Inspire Vote-by-Phone system which has been used successfully in Maine since 2006 to help the State meet the accessible voting requirements of the Help America Vote Act of 2002 (HAVA). The system consists of a set of automated Telephone Voting Servers installed at a central location which answer incoming phone calls automatically and require no human intervention other than opening and closing the polls. The proposed solution will allow UOCAVA voters to dial a designated phone number (toll-free in the U.S.) from any touchtone phone, and then follow the audio prompts to log onto the system and make their ballot choices.

The proposed solution requires two major categories of work related to the management of UOCAVA voter credentials and how the system manages the voting process. The current software used to deliver electronic ballots to UOCAVA voters will be modified to allow election officials to manage the voter authentication information, including the issuance of voter IDs and passwords. The software on the Telephone Voting Servers will be modified to support (1) the authentication process for UOCAVA voters, (2) the enforcement of one cast ballot per voter, and (3) the electronic return of voted ballots to the Division of Elections for centralized counting of UOCAVA absentee ballots.

# Period of Performance

The proposed solution will be completed in time for a demonstration prior to the end of July 2012. The project involves a one-time cost; once completed, the State of Maine will be able to utilize the existing Vote-by-Phone system to benefit UOCAVA voters in all subsequent years without any additional cost.

# 1.2 GOALS AND OBJECTIVES

The current methods provided by the State of Maine, in support of MOVE Act requirements, for UOCAVA voters to electronically receive their absentee ballots, print and mark them, then return them via fax or email presupposes that the UOCAVA voter will have access to the equipment required to accomplish these tasks. This equipment includes a computer with internet access and a configured email account, a printer, and a fax machine or scanner. There are some UOCAVA voters that do not have these required resources readily available. The telephone, however, is ubiquitous around the world, often even in very remote regions. The proposed solution not only will meet the requirements of the MOVE Act relating to electronic ballot delivery, but also will allow voters to preview and vote their ballot at least 46 days prior to Election Day, return the voted ballot instantaneously, and receive verification that their voted ballot has been successfully returned to the Secretary of State. It is the objective of this project to increase the rate of return for UOCAVA ballots by providing an easy to use solution that addresses the issue of equipment availability and meets the aforementioned requirements by implementing a proven Vote-By-Phone system that can be accessed from virtually anywhere.

# 1.2.1 Analysis of Outstanding UOCAVA Service Issues

Historically, the return and acceptance rate for absentee ballots from UOCAVA voters has been lower than absentee ballots returned and accepted from non-UOCAVA voters.

- November 2008 1,494 of 2,094 (71.3%) UOCAVA ballots issued were returned and counted compared to 97.2% of non-UOCAVA absentee ballots.
- November 2010 626 of 1,347 (46.5%) UOCAVA ballots issued were returned and counted compared to 99.2% of non-UOCAVA absentee ballots.

Pursuant to the MOVE Act, the State of Maine attempted to address this discrepancy in 2010 by giving UOCAVA voters the option to have their absentee ballots issued electronically (rather than by postal mail). Previously, all blank absentee ballots were issued entirely by mail. In 2010, 33 % of UOCAVA voters opted to receive the ballot electronically.

UOCAVA voters who were issued their ballots electronically had a significantly higher return rate than those UOCAVA voters who chose to receive their blank absentee ballots via mail (56.4% versus 41.7%). Except for a few voters who were authorized to return the voted ballot electronically, voters returned the ballot by mail, regardless of how they requested the ballot to be issued.

Another factor affecting the return rate for UOCAVA absentee ballots is the transitory nature of these voters, particularly uniformed service voters who may be transferred to a new duty station between elections. Maine election law provides that an absentee ballot request is valid for 2 calendar years. However, if a voter moves during that time period, the absentee ballot may be sent to an incorrect address. A ballot that is sent electronically will be more likely to reach the voter as most people retain the same email address even if they physically relocate.

# 1.2.2 Current Support for Maine UOCAVA Voters

The State of Maine currently offers all registered voters the ability to request absentee ballots through the online Absentee Ballot Request (ABR) service hosted by the State's portal provider, InforME. In 2010, working closely with both InforME and IVS, LLC, the Division of Elections modified the ABR service and another existing online application, BallotWeb, created by IVS, LLC to support the Accessible Voting System (AVS). These changes allow UOCAVA voters to request to receive their ballots electronically, greatly reducing the amount of time required to return their voted ballots. The voter receives automated email notifications and instructions generated by the system when the voter's absentee ballot request is processed. Contact information for the Division of Elections is provided with the notifications. The required changes to both systems and associated business processes were accomplished in a relatively short period of time and at very little cost.

The Secretary of State requested, and received, a change in Maine voting law to implement the requirements of the Military and Overseas Voter Empowerment (MOVE) Act in such a way as to be voter-friendly. This change allows the Division of Elections to essentially act as the municipal clerk for UOCAVA voters so that the voters are not required to determine their appropriate jurisdiction, of which there are five hundred in the State of Maine. UOCAVA voters have a single entity from which to request and receive their absentee ballots, and to which they will return the voted ballot by Election Day. The Division of Elections receives the voted ballots for processing and stores them in a secure location. On Election Day, a central voting place is set up by State election officials to tabulate these ballots according to Maine law.

UOCAVA voters who request their absentee ballot too late to return it successfully via postal mail are permitted to return their voted ballot electronically. This is authorized on a "per request" basis. The voter may fax the voted ballot to a designated fax number (toll-free in the U.S.), or they may scan the marked ballot, attach it to an email, and send it to a special Division of Elections email account. Absentee ballot requests submitted through the ABR system are monitored by State election officials throughout Election Day to ensure that they are expedited for processing. Therefore a UOCAVA voter may submit a request on Election Day as long as there is sufficient time to still receive and return their ballot electronically by 8:00 p.m. EST.

Since 2006, the State of Maine has been using the Inspire Vote-by-Phone system developed by IVS, LLC. It is a unique solution designed to help election officials meet the accessible voting requirements as defined by HAVA. The State's Accessible Voting System (AVS) is an interactive voice response system which consists of a set of telephone voting servers installed at a secure central location and administered by State election officials. These servers answer and validate incoming calls automatically, requiring no human intervention except for opening and closing the polls. The current system configuration restricts incoming calls to those initiated from authorized voting places. The voter is provided an audio ballot, making their selections via the telephone keypad or accessible button switch. A voted ballot marked with the voter's choices is then faxed to the AVS fax machine at the voting place. The ballot is then placed into the official ballot box for counting. There is no computerized tabulation of the voted ballots by the AVS servers.

The Inspire Vote-by-Phone system has a distinctive feature called "Preview-and-Practice". Operating in this mode, the system allows any voter to call in at any time from any location to preview their ballot and practice voting as often as they want until Election Day. No voter authentication is required and the system does not generate a ballot. This service greatly improves the election experience for all voters and decreases the amount of time required for voters with disabilities to cast their ballot on Election Day.

Both systems described above, in support of UOCAVA voters and voters with disabilities, have worked very well since implementation. The Bureau's preferred practice of enhancing existing systems and processes has proven to be very efficient and cost-effective for previous election-related projects. It is the intent of the Secretary of State to build upon these successes by innovatively utilizing existing technology by extending the functionality of the Inspire Vote-By-Phone system and modifying the software to improve UOCAVA absentee voting.

# 1.2.3 Proposed UOCAVA Solution

The system will remain essentially a ballot marking system with the following modifications:

- Each UOCAVA voter will be provided with a unique voter ID, a personal password, and the ballot ID that identifies his or her ballot style.
- The UOCAVA voter will use a touch-tone telephone of their choice to call the system, and will log in with the credentials described above. Once logged in, the voter will proceed to vote the ballot in the same manner as other voters that use the AVS system.
- The system will present audio confirmation of the ballot selections to the voter, at which point the voter may change the selections or cast the ballot.
- Instead of faxing the ballot back to the UOCAVA voter, the proposed solution will generate an image of the voted ballot which will then be transmitted to the State's Division of Elections for printing and centralized tabulation.
- The voter will be prevented from logging in again once they have successfully cast their ballot. However, if the voter did not cast the ballot due to prematurely terminating the call, there is no resulting cast ballot and the voter may log into the system again to vote.

# 1.2.4 <u>Technical Justifications</u>

# Reduced Technology Footprint

# (Factors: 1-Significance, 3-Impact, 5-Innovation)

Currently, in order to receive or return a ballot electronically, voters must have access to equipment such as a computer, printer, scanner, and/or a fax machine. They must also have access to the internet. The proposed solution will eliminate these requirements.

# • Telephone Is Widely Available

# (Factors: 1-Significance, 3-Impact)

The telephone is widely available throughout the world. Since the same standard keys (0-9, \*, #) are always available on all standard telephone keypads, the audio voting

instructions do not need to be customized to the country where the UOCAVA voters live. Furthermore, for military personnel in remote locations, the telephone may be the only feasible method of receiving and returning a voted ballot in a timely manner.

# • Telephone Voting Is Secure

# (Factors: 5-Innovation)

Telephone voting is based on audio. The only method of input to the system is "dualtone multi-frequency signaling" (DTMF) tones (or "touch tones") generated by the phone, which are sounds that also will be audible to the voter. This means any attempt to interfere with the voting process will be heard by the voter holding the telephone.

Another important feature is that, due to the nature of the underlying technology, an illegitimate phone call is far more traceable than any other media, such as the internet or even regular postal mail. Any call into the system is automatically logged with the calling number and a time/date stamp. Additional system security will disconnect a caller who does not provide the correct set of authentication codes.

# • Telephone Voting Provides Early Ballot Review and Voter Training

(Factors: 1-Significance, 4-Strategic Approach, 5-Innovation) As explained above, the Preview-and-Practice feature provides an excellent way for the

voters to (1) preview the candidate contests and questions on their ballots at the earliest date allowed by law, and (2) train themselves on how to use the system to vote.

# • Telephone Voting Guarantees Ballot Delivery

(Factors: 1-Significance, 3-Impact, 5-Innovation, 6-Scalability, 7-Collaborative) Another advantage of the proposed telephone voting solution is that the voted ballots are immediately in the custody of the State's election officials and thus guaranteed to be counted. Telephone voting has an excellent track record in Maine and several other states since 2006. Generating a voted ballot image created from the voter's choices over the telephone is a proven process and will remain unchanged with the proposed solution.

# • Proposed Solution Is Cost Effective

# (Factors: 2-Sustainable, 6-Scalability, 8-Cost Benefit Analysis)

The State of Maine has a proven track record of making innovative modifications to existing systems and processes to successfully meet changing requirements. The proposed solution takes advantage of an existing system by building onto current functionality and is very cost-effective as a long term solution for UOCAVA voters. The changes needed to implement the proposed solution are relatively simple. More importantly, the proposed solution requires no additional operating cost in future years; the cost is already covered as a mandated accessible voting solution.

# • Telephone Voting Is Accessible

# (Factors: 1-Significance, 3-Impact, 5-Innovation)

Maine and many other states have successfully adopted telephone voting as the solution for requirements pertaining to accessible voting. The telephone is familiar to any voter with a disability. For a visually impaired voter, the telephone may be the only device that connects the voter to the rest of the world. The telephone voting system in use in Maine was designed with input from several advocacy organizations for the blind. Overseas voters who are visually impaired will benefit greatly from the proposed solution.

# 1.2.5 <u>Decrease Failure Rates</u>

The proposed solution provides an easy to use method of delivering blank absentee ballots, marking the ballots, and verifying to UOCAVA voters that their ballots have been successfully returned. While the system does not address voter registration, requesting a ballot, or tabulating returned ballots, it does produce a printed ballot to be hand counted or scanned for tabulation by election officials. However, should the Vote-By-Phone system prove successful, the potential exists to expand the functionality of this system in the future. Currently, the State of Maine has a proven system enabling UOCAVA voters to register to vote and to electronically request and receive absentee ballots.

The proposed solution will address issues related to the successful return of the voted ballots as well as notifying voters that their ballots have been delivered to the Division of Elections. It is expected to result in a marked increase in the percentage of voted ballots successfully returned.

# 1.2.6 Improved Services to UOCAVA Voters

The proposed solution provides the following benefits to UOCAVA voters:

The Window of Voting Will Be Maximized

UOCAVA voters will be able to cast their votes beginning 46 days prior to the election and until 8 p.m. EST on Election Day. Effectively, the proposed solution enables UOCAVA voters to enjoy the same rights and privileges as if they are home.

• The Voting Method Will Be Accessible

Though not a requirement of UOCAVA, accessible voting is provided as an inherent feature of the proposed solution. Some overseas voters may have physical disabilities; this solution will provide them a way to cast their ballots independently and privately.

# • The Voted Ballots Will Be Counted

Once the voters finish voting and hang up the phone, their voted ballots are immediately in the custody of State election officials. These election officials will print the voted ballots, place them in absentee ballot envelopes, and store them securely. On Election Day, the envelopes are opened and the ballots counted according to Maine election law.

# • Benefit to Other Jurisdictions

Due to the wide availability of the telephone and the minimal equipment required for implementation, UOCAVA voters in other jurisdictions would benefit from development of the proposed solution. Additionally, the proposed solution is easily scalable by adding telephone voting servers and phone lines, and can be integrated into other existing systems and processes.

# 1.2.7 Security and Voter Privacy

The proposed solution will contain no personally identifiable voter information. The voter will authenticate to the system with pre-assigned numeric values only. Because the method of system and voter interaction is a single telephone call, the chance of data interception is infinitesimal and impossible to use as a way to identify the voter. The proposed solution will record when a particular voter ID number casts a ballot, but not the identity of the voter or the votes cast.

The telephone technology used to transmit the audio ballot is more secure than digital transmission over the internet. To intercept the transmission would require prior knowledge of when the telephone voting session would occur, as well as specialized eavesdropping equipment not commonly available. Additionally, an intercepted call would yield no voter information due to the fact that an actual conversation is not taking place.

# 1.2.8 Work Requirements

The proposed solution requires the following changes in the software modules:

- **BallotWeb** The BallotWeb software will be modified to support the management of the UOCAVA voters' authentication information, including the issuance of voter ID numbers and passwords. The software also will enable transfer of the voter credentials to the Telephone Voting Server software for processing.
- Telephone Voting Servers (TVS) The TVS software will be modified to accomplish the following:
  - 1. Receive and process updated voter information from BallotWeb;
  - 2. Implement the appropriate voter authentication procedures;
  - 3. Prevent the voters from voting more than once during an election;
  - 4. Transmit an image of the voted ballots to the State's Division of Elections;
  - 5. Implement the required reports specified later in this technical proposal.

# 1.2.9 System Testing

- User Acceptance Testing The project team will develop a set of acceptance criteria against which to test the system. Once the system is available for user testing, the project team will employ use cases when testing and will log each issue/defect with a unique tracking number. The contractor will be provided with this log for resolution.
- Mock Election The project team will solicit cooperation from actual UOCAVA voters deployed around the world to vote in a live system test by holding a mock election. The voters will be enlisted via email and postal mail from a subset of UOCAVA voters who requested absentee ballots during the November 2010, November 2011, and June 2012 elections. To simulate conditions during a live election, the team will attempt to recruit a sufficient number of UOCAVA voters located in diverse locations and using a variety of telephone platforms, such as satellite, land line, cellular networks, and internet phone (e.g. Skype). The system will be available around the clock during a 2 3 week period. Voters will be asked to submit feedback for each system component and/or activity. The system statistics and voter feedback will be aggregated into the final project report.

# 1.3 SCHEDULE AND MILESTONES

Since the proposed solution is not a brand-new technology and is merely extending the functionality of an existing and already deployed system, product development is expected to be accomplished by early 2012.

# 08/01/2011 Project Starts

The Secretary of State will assign the appropriate staff to serve as the project team to begin the process of requirements analysis and writing a detailed requirements document.

• 09/15/2011 Completion of Functional Requirements Specifications Document The project team will provide the FRSD to the contractor as a basis for the system design.

# • 10/31/2011 Completion of Detailed Design Specifications Document

The project team and the contractor will hold regularly scheduled meetings to review the system design and resolve any issues as they arise. The contractor will present the completed design document to the project team for acceptance.

# • 11/15/2011 Completion of User Acceptance Testing Criteria

The project team will create a list of criteria against which the system will be tested.

# • 12/31/2011 Completion of BallotWeb Modifications

The contractor will complete the modifications to the online application used to create the audio and electronic ballots, and to manage voter credentials.

# • 02/28/2012 Completion of Telephone Voting Server (TVS) Modifications

The contractor will complete the modifications to enable UOCAVA voters to access and vote their ballot.

# • 03/31/2012 Completion of User Acceptance Testing

The project team will rigorously test all aspects of the system against the list of acceptance criteria. Testers will log all defects, which the contractor will correct.

# • 06/30/2012 Completion of Voter Outreach/Mock Election Plan

The project team will design the mock election and conduct voter outreach activities to recruit participants for the mock election.

# • 07/31/2012 Completion of Mock Election and Final Acceptance Testing

The State of Maine will schedule a mock election to test the behavior of the system during an election. The mock election will simulate, to the extent possible, conditions occurring during an actual election

# • 08/31/2012 Complete Review of System Performance and Voter Feedback

The project team and the contractor will review the performance of the proposed solution during the live exercise and analyze the feedback provided by the voters. A final report will be issued noting the success or failure of each system component with pertinent statistics.

#### 1.4 **REPORTS**

#### 1.4.1 Programmatic and Financial Progress Reports

- **Development Phase Reports** At the end of each development phase as described in the "Schedule and Milestones" section, the State of Maine will submit a written report detailing the activities performed in support of the completion of the phase and a description of the resulting deliverables.
- Financial Progress Reports As indicated in the application guidance for the 2011 EASE grant, the State of Maine will comply with 32 CFR 33.41 and submit SF 425 financial progress reports reflecting quarterly status within 30 days following the end of each reporting period. Reports shall reflect accurately the results of financial transactions, disclose all essential financial data for the period covered, and contain such other information as bears directly on the financial operations pertaining to the grant. Financial data in each report will be taken directly from accounting records and supporting documentation will be maintained and available for review in the Bureau's offices.

#### 1.4.2 Data Collection Reports

- Registered UOCAVA Voters On or before December 31, 2011, the State of Maine will submit a report detailing the number of 1) registered UOCAVA voters as of November 8, 2011; 2) UOCAVA voters that requested an absentee ballot for the November 2, 2010 and November 8, 2011 elections; 3) UOCAVA voters that were sent an absentee ballot for the aforementioned elections; and 4) UOCAVA voters that returned their absentee ballots for those elections.
- User Acceptance Testing On or before April 30, 2012, the State of Maine will submit a report detailing the data collected, number of transactions through the system, number of successful transactions, and the number of failed transactions.
- Mock Election On or before August 15, 2012, the State of Maine will submit a report detailing the data collected, number of transactions through the system, number of successful transactions, and the number of failed transactions.

#### 1.4.3 Final Project Report

The final project report will be submitted by August 31, 2012 and will provide a summary of the project activities, the costs associated with those activities, descriptions of technical and/or process resolutions to problems that may have occurred during the course of the project, a determination of whether the proposed solution met project expectations, and an evaluation of the success or failure of the proposed solution in improving the voting process for UOCAVA voters.

#### 2.1 PERSONNEL

The Secretary of State, Charles E. Summers, Jr., will serve as the Executive Sponsor for this project. As such, he will assign the following key personnel to be responsible for managing the project to completion.

Project Role	Name	Business Title
Contracting Officer	Julie Flynn	Deputy Secretary of State
Acceptance Testing Officer	Melissa Packard	Director of Elections
Project Manager	Katharine Moore	Systems Analyst

See Appendix A for qualifications and resumes of key personnel.

#### 2.2 CONTRACTOR

All software modules will be modified by their author, IVS, LLC. The company's address is 10001 Linn Station Road, Suite 205, Louisville, Kentucky 40223.

#### 2.3 COLLABORATIVE ACTIVITIES

The plan that the Bureau is proposing herein to enhance the voting experience of uniformed service and overseas citizens builds on a system that already has been successfully deployed to support another formerly disenfranchised voting group - *individuals with disabilities*. The rural nature of our State and the remoteness of many of our municipal voting places necessitated a voting system that allowed access using technology, as detailed earlier in this application, that is largely available and familiar to all voters as well as municipal election officials. By adapting and extending the range of that technology to provide for the inclusion of additional voters, the Bureau anticipates realizing and inviting a low cost collaboration on a number of levels and at multiple stages.

As noted previously, the system currently in use for individuals with disabilities was designed, developed, and successfully implemented by IVS, LLC. In proposing an adaptation of that solution to help resolve inherent inequities in the system currently available to UOCAVA voters, the Bureau expects to build on its previous success in collaborating with this vendor. Because the management and technical teams of both entities remain largely unchanged, we expect a synergized development effort to take place without encountering the type of learning curve normally associated with these types of projects. With this grant, the Bureau has the opportunity to realize its long range vision for uniformed service and overseas voters while at the same time establishing an accessible, secure, low cost solution that other jurisdictions with similar platforms will be able to evaluate for use with their own voting processes.

As an example, like the State of Maine, the states of Vermont, New Hampshire and Connecticut use systems reliant on telephone technology and developed by 1VS, LLC to provide services to their own citizens with disabilities. While the systems differ on some basic levels, they are

similar enough that in the event this project is funded and implemented, all these states would be able to capitalize on the work proposed in this application to extend their own umbrellas to their UOCAVA voters and do so inexpensively.

However, looking beyond just these four State entities, the most attractive part of the proposed solution is the security and affordability it offers relative to FVAP's stated goal of providing UOCAVA voters an even greater opportunity to participate in the voting process. We believe that a solution that utilizes technology that all parties already have in place in some form and can be easily adapted to a variety of existing voting systems or incorporated as a stand alone solution offers the best chance for a more widespread and perhaps even national collaboration that would ultimately deliver on the FVAP vision for all UOCAVA voters.

#### 2.4 STRATEGIC GOALS

- Enhance and build upon existing Bureau technology to provide an easy to use additional method for UOCAVA voters to receive, vote, and return their absentee ballots.
- Implement the system in such a way as to enhance current election processes with minimal disruption.
- Increase the percentage of UOCAVA voters that successfully return their voted absentee ballots by Election Day.

#### 2.5 PROJECT MANAGEMENT METHODOLOGY

- The project team and the contractor will meet at regularly scheduled intervals and as needed to review the project status and to resolve issues that arise during the course of the project.
- The State's Project Manager and the contractor will designate a contact person responsible for all communications related to this project.
- The State's Project Manager and the designated contractor point of contact will communicate at least weekly to review the project status and ensure that all supporting tasks are accomplished to adhere to the project schedule.
- The project plan, including schedule and milestones, will be documented and updated as required.
- The State and the contractor will adhere to the agreed upon requirements, specifications, and project plan.
- The contractor will communicate to the State's Project Manager any potential changes or deviation from the project plan, in writing, at the earliest possible time.

#### 2.6 FINANCIAL MANAGEMENT

The primary objectives of the Bureau's grant financial management are:

• To provide information and data to assist in the planning, control, measurement, and evaluation required for efficient, economical, and effective management and allowable execution of grant funds.

- To provide controls and protections for funds and other assets in the custody of the Bureau thus ensuring that the expenditure of funds is in conformity with current federal and state laws and applicable regulations; does not exceed obligations in excess of the total funds authorized by an award; and meets any applicable provisions for allowable costs so that the most effective use is made of all available resources.
- To manage accounts in such a way so as to regularly track progress towards the approved project budget and monitor costs charged against the project budget.
- Establish and maintain a clear and consistent audit trail.

In support of the above objectives, Bureau management shall:

- Safeguard both the grant funds and the assets purchased with those funds;
- Assure the accuracy and reliability of grant accounting data;
- Promote operational and administrative efficiency;
- Adhere to prescribed federal, state, and agency statutes, regulations, and policies;
- Have an organizational plan that shows placement of accountability and responsibility;
- Have a separation of duties between authorization and record-keeping to ensure that internal checks and balances are maintained; and
- Use appropriate forms, documents, and procedures to facilitate controls and provide for proper approvals.

Upon award of a grant, the Bureau shall establish and/or maintain accounts and related records necessary to reflect transactions. Records will be complete, accurate, and current.

To administer these financial management strategies, the Bureau utilizes the State of Maine's Advantage accounting system; the capability for producing, recording, tracking, and reporting information that establishes an audit trail is designed into the system. For some specific requirements that are not part of Advantage, spreadsheets may be created to track relevant information and maintain an audit trail. Such spreadsheets will be regularly reconciled against the Advantage system to ensure that the financial information contained therein is accurate.

#### 2.7 MODIFICATION TO EXISTING PROCESSES

The Division of Elections functions as the election official for all UOCAVA voters, regardless of their voting jurisdiction within the State. UOCAVA voters may request an absentee ballot by telephone, mail, or through the provided online service. The voters are sent their ballots either through the postal mail or electronically, as specified by the voter. The voted UOCAVA ballots are then returned to the Division of Elections for tabulation on Election Day. Voter information is maintained by the Division within the statewide Central Voter Registration (CVR) system. A more detailed description of current Bureau processes for managing UOCAVA voters is provided in section 1.2.2 of this proposal.

The existing processes have proven effective and will not change substantially. The proposed solution will instead offer enhancements to the voter's chosen method of receiving, voting, and returning the absentee ballot. The outstanding service issues, as identified by the Division, are the delivery and return of absentee ballots.

#### 2.7.1 Process Analysis

In November 2010, only 46.5% of UOCAVA voters' ballots were returned and accepted. This was down substantially from the November 2008 election, where the rate of returned and accepted UOCAVA ballots was 71.3%. There are several factors, however, that could cause such a differential:

- The Division of Elections automatically issued ballots by mail to UOCAVA voters who had requested to receive absentee ballots two years prior to the 2010 election. Many of these voters had relocated and did not provide a forwarding address.
- Some of the ballots issued automatically were sent to voters who had no interest in the 2010 election. Since the November 2008 election involved a presidential race, voter interest was much higher.
- Even with ballots delivered electronically to the voter, the ballots were still returned via postal mail except in some special cases. Mail service in many overseas locations has proven to be problematic.
- Electronically delivered ballots were returned at a higher rate than mailed ballots, but did present some technical difficulties due to faulty voter equipment or software configuration, user error, or misdirected email instructions. While the Division provided technical support via phone and email, and was able to assist those voters to successfully receive their ballot, there are an unknown number of voters who may not have requested such assistance and therefore were unable to access the electronically delivered ballot.

#### 2.7.2 <u>Related Elements</u>

- **Ballot Issuance** Based on the information gathered in 2010 from the undeliverable and unreturned ballots, the Division of Elections has been able to cleanse the CVR database of incorrect voter data. This should result in an improvement of the percentage of returned ballots.
- Voter Outreach The Division plans to undertake voter outreach activities to ensure the availability of accurate and up-to-date voter data and that more UOCAVA voters are aware of the different alternatives provided by the State to receive and return their absentee ballots.
- Method of Ballot Return While the overall rate of returned ballots was very low due to the large number of undeliverable mailed ballots, 56.4% of ballots that were requested to be issued electronically were returned for counting. This is almost 15 points higher than the 41.7% return rate for mailed ballots. The large majority of these electronically issued ballots were returned via postal mail, which may account for the still low percentage of returned ballots when compared to the 97% 99% return rates enjoyed by non-UOCAVA absentee voters.
- Voter Equipment Even providing for the option of electronic ballot delivery, only 248 UOCAVA voters requested to receive their ballots that way. Of those voters, over 62% were overseas voters. Based on these statistics, it is possible that many uniformed service voters did not have access to the equipment required to download and print the electronic ballot.

#### 2.7.3 Process Modifications

It is the intent of the Bureau to increase the rate of ballot return by UOCAVA voters to the same percentages as non-UOCAVA absentee voters. While that may not be possible to do at this time, it is conceivable that return rates can increase significantly, perhaps by 20% - 30%, by modifying current processes. To reach this level of success, the Bureau will:

- Increase voter outreach activities to UOCAVA voters by gathering additional voter data to include email addresses, distribute instructional materials related to the various methods of ballot delivery and return, and ensuring that voter registration data is current;
- Promote alternative methods of ballot delivery and return as a viable alternative to postal mail; and
- Identify sustainable and cost-effective methods of ballot delivery and return.

#### 2.8 POTENTIAL RISKS & MITIGATION STRATEGIES

#### 2.8.1 Personnel and Contractor Risk

The Maine Division of Elections and the contractor each operate with a small staff handling a variety of tasks; a sudden change in personnel may prove disruptive to the management and completion of the project.

Mitigation:

- The Secretary of State will take this risk into consideration when assigning personnel to this project, as well as other tasks or projects that may need to done during the same time period.
- All tasks and activities will be documented in detail so that if a staff change is necessary, crucial information will be retained by the project team.
- The contractor will be asked to consider the risk involved and, wherever applicable, develop a contingency plan for the project.
- The assignment of principal personnel to the project by the contractors will be discussed with and approved by the project team.
- The project team and the contractor have a history of successfully implementing several election-related initiatives while conducting required daily business activities.

#### 2.8.2 Software Implementation Risk

When a project involves the participation of different parties, the potential exists for misinterpretation of the project requirements. Additionally, it is common for software defects to be present in any software development and implementation.

Mitigation:

- Regular and frequent communication between the project team and the contractor staff is necessary to ensure that all parties have clarity regarding the requirements.
- The Requirements Specifications will contain a list of Use Cases with enough details to demonstrate how the system will be used from the perspective of each class of users.
- There is a shared work history between the project team and the contractor and each is familiar with the expectations of the other party.
- Clear and concise definitions will be written into the project requirements.

- The project team will include in the Requirements Specifications a formal procedure to manage the reporting, classifying, prioritizing and fixing of software defects.
- The Project Manager will conduct regular meetings as needed with all parties involved in the project to review the outstanding software problems.

#### 2.8.3 System Usage Risk

UOCAVA voters may experience difficulty using the system. For example, the audio voting instructions, which may work well for the voters in the United States, might be more difficult to understand for those who have been living in a foreign country for a long time. There may be problems with phone line quality or intermittent phone network outages, especially in foreign countries. Additionally, voters with hearing impairments may not be able to use the system.

Mitigation:

- The State of Maine has extensive experience with the Vote-By-Phone system and the difficulties some voters may experience when interacting with the system. This will enable the project team to be much more proactive in addressing potential usage issues than if it were developing an unfamiliar technology solution.
- The Project Manager will develop a formal procedure to solicit feedback from UOCAVA voters and address suggestions and/or complaints from the voters.
- For voters who cannot use the Vote-By-Phone system due to a language barrier, a physical disability, or technical problems, the Division of Elections provides multiple alternatives for absentee voting by UOCAVA voters as well as remote technical assistance.

#### 2.9 MILESTONE LIST

Listed below are the project milestones. A description of each is included in the previous section of this proposal entitled "Technical Approach and Justification".

Milestone	Description	Date
Functional Requirements	Complete Functional Requirements Specifications	09/15/2011
Specifications	Document	
Design Specification	Complete the system design documentation	10/31/2011
UAT Criteria	Complete criteria for User Acceptance Testing	11/15/2011
BallotWeb mods	Vendor completes changes to BallotWeb software	12/31/2011
TVS mods	Vendor completes changes to Telephone Voter	02/28/2012
	Server software	
User Acceptance Testing	Project team completes unit testing	03/31/2012
Plan Mock Election and	Complete plan for holding the mock election and	06/30/2012
Voter Outreach Activities	recruiting UOCAVA voters to participate	
Mock Election/Final Test	Completion of mock election and final acceptance	07/31/2012
	testing	
Final Project Report	Final report issued detailing results from mock	08/31/2012
	election	

#### 2.10 MEASUREMENT OF PERFORMANCE

Ultimately, the overall project performance will be measured by the number of UOCAVA voters who actually benefit from the proposed solution during the mock election. The following data will be collected during the mock election and appropriate changes to the system and/or management processes will be considered if deemed necessary.

- 100% of voters receive their voter credentials and instructions;
- 100% of voters are able to authenticate to the system;
- 80% of voters complete the voting process in the first attempt;
- 100% of voters complete the voting process within three attempts;
- 100% uptime for the telephone voting servers;
- 0 duplicate ballots are returned; and
- Majority of the feedback from the participating voters is positive.

#### 2.11 CURRENT AND PENDING PROJECTS/PROPOSALS

The State of Maine is not currently involved in any ongoing or pending projects.

The following key personnel will constitute the State's project team. See attached resumes on the subsequent pages.

#### Julie Flynn, Deputy Secretary of State

Julie Flynn has successfully conducted Maine elections for 23 years, both at the state and local level. As such, she has extensive experience in administering statewide elections and interpreting and implementing federal and state election laws. Julie has been the grants manager for the Help America Vote Act of 2002 (HAVA), ensuring that procurement and program development complied with federal and state laws. She will be the Contracting Officer for this project.

#### Melissa Packard, Director of Elections

Melissa Packard has worked in the elections field for over 15 years, including 7 years as Director of Elections for the State of Maine. Supported by her staff, she manages the day to day activities necessary to successfully administer statewide elections. She has assisted with the development and testing of Maine's central voter registration database and accessible voting solution. She will act as the Acceptance Testing Officer for this project.

#### Katharine Moore, Systems Analyst

As the systems analyst tasked with implementing and supporting the State's Vote-By-Phone accessible voting system since 2006, as well as the online services related to managing the absentee ballot process, Katharine Moore has detailed knowledge of how the current system operates and how any modifications to that system will impact existing systems. She will act as the Project Manager for this project.

#### Julie L. Flynn

(b)(6)

- <u>Summary:</u> Effective leader with 23 years of successful public-sector management experience. Responsible for program implementation at the highest levels of State government with strong expertise in elections management, business filings and related laws. Critical experience brokering solutions among diverse parties. Major strengths include:
  - Skilled strategic planner and organizational manager
  - Expert analyst and problem solver
  - Adept financial and personnel administrator
  - Knowledgeable grant administrator and trainer

#### Experience:

#### 1995 to Secretary of State, Bureau of Corporations, Elections and Commissions

present

#### Deputy Secretary of State, 1999 to present

Lead a diverse, high-visibility, public-service Bureau. Oversee 27 staff across multiple divisions, managing biennial revenues of \$19 million and \$5 million in expenditures.

- Successfully supervised 19 statewide elections, 64 general election candidate recounts, numerous primary election recounts and 1 statewide ballot question recount.
- Drove implementation of statewide Central Voter Registration system, resulting in improved reporting accuracy and increased integrity of voter registration data.
- Launched innovative central absentee voting process for military and overseas voters, including electronic delivery of ballots, providing a voter-friendly "one-stop" process.
- Enhanced citizen voting access through deployment of an online absentee ballot request service and an Accessible Voting System in Maine's 550 voting places.
- Accomplished statewide survey of voting place accessibility and designed program of reimbursements for physical accessibility improvements using federal grant funds.
- Reengineered internal work processes and directed development of several nationally-recognized electronic services, increasing efficiency and raising levels of customer service and satisfaction despite personnel reductions of nearly 30% over the last six years.
- Wrote legislation and ably represented agency's interests to the Legislature.
- Led the business and legal team that achieved adoption of Revised Article 9 of the Uniform Commercial Code in Maine.
- Implemented the 2003 redistricting of federal, state and county districts.

#### Director of Corporations and Elections, 1995 to 1999

- Developed first comprehensive training manual for election administration and designed and conducted effective training programs for municipal election officials.
- Successfully oversaw the conduct of 7 statewide elections; 21 general election candidate recounts and the first statewide referendum recount in 30 years.
- Catalyst for redesign of ballot formats to improve readability for voters.
- Implemented ballot creation software to increase efficiency of production by 50%.
- Upgraded document imaging capability for business entity documents and directed the imaging of document files for over 50,000 entities.

#### 1988 to <u>City of Portland, Maine</u>

1995

# Assistant City Clerk, 1992 to 1995

- Successfully managed all aspects of 4 state and numerous municipal elections.
- Collaborated with the Greater Portland Council of Governments to prepare the 1993 redistricting proposal for City Council and School Board districts under very tight statutory deadlines; implemented new municipal and State districts.
- Improved accuracy of voter registration files and electronic records by completing the first system-wide maintenance program in more than a decade.
- Revamped voter registration procedures to eliminate 500 hours of accumulated compensatory time within one year and prevent accrual of new overtime.
- Managed temporary staff of over 100 election officials and trained them prior to each local and state election.
- Instituted pre-election testing program for optical scan tabulators to improve the accuracy and protect the integrity of the election.

#### Business License Administrator, 1988 to 1992

- Managed application and approval process for new and renewal licenses, including food service and liquor licenses, taxi companies and drivers, second-hand dealers, farmers market and other licenses required by city ordinance.
- Introduced checklist process to decrease approval time for license applications.
- Reinstated licensing task force to coordinate inspection process and improve liquor and food service license approval process.
- Conducted numerous administrative hearings and issued decisions to resolve licensing issues and complaints.

#### <u>Education:</u> University of Maine, Orono Master of Business Administration, Marketing and Finance Bachelor of Arts with Highest Distinction, Psychology

- <u>Honors:</u> 1997 William Twarog Manager of the Year Award 1996 Governor's Teamwork Award (for the Elections Team) Phi Beta Kappa
- <u>Affiliations:</u> Past President, International Association of Commercial Administrators State Member, U.S. Elections Assistance Commission Standards Board Member, National Association of State Elections Directors

	Melissa K. Packard			
(b)(6)				

### **Education**

1990 graduate of Saint Joseph's College, Standish, Maine. Bachelor of Arts degree, majors in history and English.

#### **Relevant Work Experience**

#### 6/04 – present Director of Elections and Administrative Procedure Act, State of Maine, Secretary of State, Division of Corporations, Elections and Commissions

Coordinate all elections for federal, state and county offices and statewide referenda; develop programs to ensure Maine is in compliance with federal laws including the National Voter Registration Act (NVRA), the Help America Vote Act of 2002 (HAVA) and the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA). Oversee procurement and customization of software and other systems including Central Voter Registration system, Accessible Voting System and online absentee ballot request service necessary to ensure compliance with federal statutes. Draft legislation to facilitate conduct of elections; prepare testimony and reports for legislative committees.

# 11/00 – 6/04 Assistant Director of Elections, State of Maine, Secretary of State, Division of Corporations, Elections and Commissions

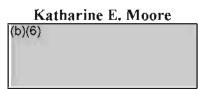
Assisted Director of Elections and Deputy Secretary of State in developing programs to conduct elections for federal, state and county offices and statewide referenda. Reviewed and maintained elections schedule; assigned and managed projects of subordinate staff to ensure timely completion; prepared personnel reviews; coordinated contract for printing of ballots for over 500 jurisdictions; edited and updated training manuals for election officials; reviewed and updated forms necessary to conduct elections including ballots, tally sheets and instructions for voters and election officials.

# 11/98 – 11/00 Elections Assistant, State of Maine, Secretary of State, Division of Corporations, Elections and Commissions

Provided administrative support for Director and Assistant Director of Elections; drafted and updated documents, researched and answered questions for candidates, election officials and public on Title 21-A, Maine Law on Elections; reviewed candidate and initiative petitions for compliance with statutory requirements and assisted with training for municipal clerks and registrars.

### 6/91 – 8/94 Municipal Clerk/Treasurer/Tax Collector, Town of Unity, Maine.

Conducted municipal and state elections; provided training for election clerks and wardens; collected real estate and excise taxes; prepared and filed tax liens; served as municipal agent for state motor vehicles and fish and game departments, including required monthly reporting; processed town warrants and payroll and maintained town's financial records.



#### SUMMARY OF OUALIFICATIONS

- Motivated and experienced professional with fourteen years of experience in the development and administration of enterprise solutions
- Proven track record of successfully managing technical and non-technical projects from analysis and design through implementation and user training
- Exceptional written and oral communication skills resulting in the ability to effectively convey information critical to both organizational and project successes
- Experienced in designing solutions that support the business objectives of the organization while operating within budgetary constraints

### RELEVANT EXPERIENCE

#### STATE of MAINE, Augusta, Maine Office of the Secretary of State - Bureau of Corporations, Elections, and Commissions Systems Analyst/Online Services Manager

- Perform various technical and administrative duties related to the management and enhancement of the State's Accessible Voting System
- Act as the liaison between Bureau staff and the State's contracted portal provider to resolve technical issues, enhance current applications, and coordinate the design and deployment of new services to meet constituent needs
- As project manager, lead the initiative to gather requirements, design, develop, and implement a new in-house software system to manage corporate and UCC filings
- Write and maintain business and functional requirements documentation for Bureau projects
- Analyze and manage projects to facilitate the integration of technologies and business practices •

#### STATE of MAINE, Augusta, Maine

# Office of the Secretary of State - Bureau of Corporations, Elections, and Commissions Accessibility Manager

- Developed criteria to evaluate voting equipment submitted for purchase consideration by the State
- Coordinated a statewide implementation of the Accessible Voting System purchased by the State, including deployment of polling place equipment and training election officials of over 500 municipalities
- Consulted with vendor and State technical staff to enhance the system stability and security of the Accessible Voting System, resulting in a more robust and effective solution
- Evaluated the need for additional functionality of the Accessible Voting System and negotiated with the vendor to provide the required enhancements
- Administered and maintained the State's secure voting servers in support of statewide elections
- Augmented existing databases to more accurately capture and report financial and tracking data related to the accessibility of polling places throughout the State

# July 2007 – Present

May 2006 - July 2007

#### Katharine E. Moore

#### SELTZER & RYDHOLM, INC. and PEPSI BOTTLING GROUP, Auburn, Maine Senior Data Analyst/Programmer

- Identified business requirements and analyzed business processes in order to provide technical solutions
- Designed, developed and maintained policies, procedures, and technical specifications with related documentation
- Coordinated and conducted end-user training in the use of licensed and custom software
- Evaluated and recommended a software development tool for creating custom GUI applications that enabled the company to leverage existing systems and data structures
- Developed client GUI applications to modernize user interfaces to the legacy system

#### SAUNDERS MFG. & MARKETING, Readfield, Maine *Programmer/Analyst*

- Managed project to successfully implement multi-platform enterprise virus protection for local and remote sites
- Directed initiative to achieve remote connectivity by selecting and establishing a secure VPN connection between corporate headquarters and remote offices
- Designed and created software programs to interface data from primary business system to a secondary warehouse logistics system

#### **EDUCATION**

Associate Degree in Computer Information Systems - 1997 Northern Maine Technical College, Presque Isle, Maine

#### Oct 2002 – Jun 2005

#### May 2000 - Oct 2002

#### FY2011 Electronic Absentee Systems for Elections (EASE) – State of Maine Budget Grant Narrative & Explanation (7-7-11)

**A. Personnel** – (List each position by title and name of employee if available. Show annual salary rate and percentage of time to be devoted to project)

	Name/Position	Computation	Cost
1	None		

#### Budget Narrative: N/A

**B.** Fringe Benefits – (Fringe benefits should be based on actual known costs or an established formula and are for the personnel listed in Budget Category A).

	Name/Position	Computation	Cost
11	None		

#### Budget Narrative: N/A

**C.** Travel – (Itemize travel expenses of project personnel by purpose{e.g. staff to training, field interviews, advisory group meetings, etc.})

Purpose of Travel	Location	Item	Computation	Cost
FVAP Progress Mtgs	Washington D.C.	Airfare/PD/Trans	See explanation #1	\$ 4,445.00

#### **Budget Narrative:**

1) 3 trips (two in FY2012 and one in FY2013) for two staff to go to Washington DC (FVAP) to review and provide updates on the EASE Grant project status. Estimated total travel costs breakdown as follows:

Airfare @ \$300 per ticket x 2 staff x 3 trips =\$1,800.00PD Full (GSA) @ \$282 per day x 2 staff x 3 trips =\$1,692.00PD Part (GSA) @ \$53.25 per day x 2 staff x 3 trips =\$ 319.50Taxi Fees \$25.00 per ride (est.) x 4 rides x 3 trips =\$ 300.00Mileage @ 100 R/T x .555 x 2 x 3 trips =\$ 333.00Total\$ 4,444.50 (rounded to \$4,445)

**D.** Equipment – (List of non-expendable items that are to be purchased. Non expendable equipment is tangible property having a useful life of more than two years)

	Item	Computation	Cost
1	None		
2			
3			

#### Budget Narrative: N/A

**E. Supplies** – (List items by type {e.g., office supplies, postage, training materials, copying paper, etc.}). Generally, supplies include any materials that are expendable/consumable)

Item	Computation	Cost
None		

#### Budget Narrative: N/A

#### F. Consultants/Contracts

<u>Consultant Fees:</u> (Indicate whether applicant's formal, written Procurement Policy, or Federal Acquisition Procedures are followed) (For each consultant enter the name, if known, service to be provided, hourly or daily fee {8 hour day}, and estimated time on the project)

	Name of Consultant	Service Provided	Computation	Cost
1	None			

#### **Budget Narrative: N/A**

**Consultant Expenses:** (List all expenses to be paid from the grant to the individual consultants in addition to their fees.)

Item	Location	Computation	Cost
None			

#### **Budget Narrative: N/A**

<u>Contracts:</u> (Provide a description of the product or service to be procured by contract and an estimate of the cost.

	Item	Cost
1	Software Modification – Vote-by-Phone	\$ 85,000.00
2	Software Modification - BallotWeb	\$ 18,000.00
3	Mock Election Support Services	\$ 10,000.00

#### **Budget Narrative:**

1) This work will involve programming a redesign of the Vote-by-Phone software and database to enable authentication and acceptance of UOCAVA voter credentials and log incoming call data for tracking and reporting purposes, provide additional analysis and reporting capabilities, and prevent voters from casting multiple ballots. The work also includes modifying the Preview-and-Practice module referenced in the technical proposal, developing and implementing a communication interface with the BallotWeb system to receive non-identifiable voter data, and enabling transfer of voted UOCAVA ballots to the Elections Division. The amount is based on a quote by the vendor, IVS, LLC.

2) This work will involve the design and implementation of a communication interface to transfer voter authentication data to the Vote-By-Phone system, modifying the database to provide for additional data requirements, and enhancing the user interface to allow election officials to administer UOCAVA voter credentials. The amount is based on an estimate provided by the vendor, IVS, LLC.

**3)** To prepare for any election - or in this case mock election - that employs the Accessible Voting System (AVS), the contractor must perform various support services related to creating the ballot and configuring the system. These activities include extracting the ballot data entered into the BallotWeb system by election officials, creating various audio ballots via human voice recordings, and generating and testing a compiled dataset which presents an audio ballot specific to that election and generates a PDF image of the ballot marked with the voter's choices. The contractor must also reconfigure and manage the telephone voting servers designated for the Preview-and-Practice function. Furthermore, the contractor will work with the project team to identify, test and troubleshoot access to the system by various types of telephone platforms (satellite phone, military phone, foreign cell phones, etc.) The amount is based on an estimate provided by the vendor, IVS, LLC.

**G.** Construction - (As a rule, construction costs are not allowable but may be in some cases)

Item	Computation	Cost
None		

Budget Narrative: N/A

H. Other Costs – (List items	s {e.g., rent, reproduction,	telephone, janitorial,	, or security})
------------------------------	------------------------------	------------------------	-----------------

Description		Computation	Cost
1	Voter Outreach	See below (#1)	\$4,500.00
2			

#### **Budget Narrative:**

1) Voter outreach will include developing and printing informational brochures on the Vote-by-Phone system and conducting an initial mailing to all of Maine's 2,300 registered UOCAVA voters as well as a follow up mailing to enlist participation in administering the mock election. Additionally, a follow up survey will be conducted to assess system successes and identify where improvements can be made. The costs of two separate mailings will be \$2,024 (.44 per stamp x 2,300 voters x 2 mailings) while the printing/materials costs are estimated at approximately \$2,500.

**I. Indirect Costs** – Indirect costs are allowed only if the applicant has a federally approved indirect cost rate.

Description	Computation	Cost
Management & Admin costs	See Item I explanation	\$5,817.00

#### **Budget Narrative:**

1) This represents anticipated, allowable indirect costs associated with the general grant overhead administration and management of Federal funds including costs associated with the State of Maine's FY11 Cost Allocation Plan which is currently set at 4.081% of any grant award expended.

DUDGET SUMMART		
A.	Personnel	0.00
B.	Fringe Benefit	0.00
C.	Travel	4,445.00
D.	Equipment	0,00
Е.	Supplies	0,00
<b>F.</b>	Consultants/Contracts	113,000.00
G.	Construction (Facilities)	0.00
Н.	Other	4,500.00
	Total Direct Costs -	121,945.00
Ι.	Indirect Costs	5,866,00
	TOTAL PROJECT COSTS -	127,811.00
	Federal Request	127,811.00
	Non-Federal Amount	

#### BUDGET SUMMARY

# Return on Investment (ROI)

The instructions for the FY2011 EASE Grant call for a Return on Investment analysis of the applying agency's grant request as part of the grant application.

ROI is traditionally a performance measure used to evaluate the efficiency of an investment or multiple investments. The formula for calculating simple ROI involves taking the benefit (return/profit) of an investment and dividing it by the cost of the investment with the result then being expressed as a percentage or a ratio:

ROI = (Gain from Investment - Cost of Investment) = X %Cost of Investment

While we recognize the value of ROI as a consideration in formulating certain business decisions such as whether or not to fund a project, we believe that its simplicity as a metric limits its application in consideration of this award. In order to provide a ratio, dollar values must be assigned to each component of the formula but in this circumstance we can not determine a dollar value for the "gain from investment" component. Applying ROI to our agency:

ROI = <u>(Unknown - \$127,810 Total Grant Request)</u> = ? % \$127,810 Total Grant Request

Any value that would be assigned to the "gain from investment" component would be speculative thus rendering the formula less valuable as a tool for this evaluation.

As an alternative to an ROI value in reviewing our package, we would ask consideration of a "social" return on investment. We know that as a state, we have 2,300 registered UOCAVA voters and would propose a formula that looks like this:

 $SROI = \frac{\$127,\$10 \text{ Total Grant Request}}{2,300 \text{ UOCAVA voters served}} = \$55.56 \text{ per voter}$ 

The goal of UOCAVA and FVAP is to better protect the voting interests of those who represent our country in the uniformed service and as overseas voters. This project establishes a sustainable means for doing so, enables a greater percentage of UOCAVA voters to participate in the voting process, and reduces ballot failure rates. We have an opportunity to meet these broad UOCAVA and FVAP goals at what is essentially a one-time cost of less than \$56 per currently affected voter. More to the point, each additional affected voter who benefits in the years to come will drive that cost <u>down</u>, increasing the value commensurately.

We believe that it is in this "social" return that the value of our proposal can best be evaluated – the opportunity to deliver on the promise to those who represent our country's broad and diverse interests around the globe that they will not be disenfranchised from the process that many of them are helping defend; that their votes will count. This is the true return on investment that merits consideration here. **Technical Proposal** Catalog of Federal Domestic Assistance #: 12.217 BAA#: HQ0034-FVAP-11-BAA-0001

# Maricopa County Elections Department UOCAVA Voter Interface Upgrade Project

CAGE Code: (b)(4) DUNS# (b)(4) Maricopa County Elections Department Applicant: Rey Valenzuela, Assistant Director Technical Contact: 510 S 3rd Avenue, Phoenix, AZ 85003 Phone: 602-506-3096 Fax: 602-506-5112 Email: rvalenzuela@risc.maricopa.gov Tammy Patrick, Federal Compliance Officer Administrative Contact: 111 S 3<sup>rd</sup> Avenue, Phoenix, AZ 85003 Phone: 602-506-1270 Fax: 602-506-3069 Email: tpatrick@risc.maricopa.gov January 2, 2011- December 31st, 2012 Performance Period:

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#### iii. Technical Approach and Justification:

#### 1. Executive Summary:

Arizona UOCAVA voters are afforded some "luxuries" that not all other voters in the United States have: the ability to register online as well as to request, receive, and return their ballot electronically. Yet, we are never satisfied with the status quo if there are available enhancements to be made, and until all UOCAVA voters who want to participate can do so at the same level of effectiveness of our standard voting population, there is room for improvement.

Maricopa County utilizes voter registration and administrative systems which have all been developed in-house by our talented IT staff. This internal resource allows for innovation and modification to our procedures without timely delays in procurement procedures and vendor selection. Most recently our programming team augmented the existing Secretary of State's system (which allows for UOCAVA voters to request a ballot electronically) with an internal, automated ballot delivery process negating the need for staff intervention. Previous manual procedures of pulling the ballot PDF, attaching it to the instructional email, and sending it to the voter are now done systematically. We seek to provide additional improvements which we feel will noticeably enrich the UOCAVA voter's experience with our website, encourage participation, and escalate the efficaciousness of successful ballot casting.

The improvement of both the public point of contact, as well as increased economy on the processing of the information being provided, will reduce the time needed to facilitate voter registration, ballot delivery, as well as strengthen the likelihood that the ballot will be tabulated.

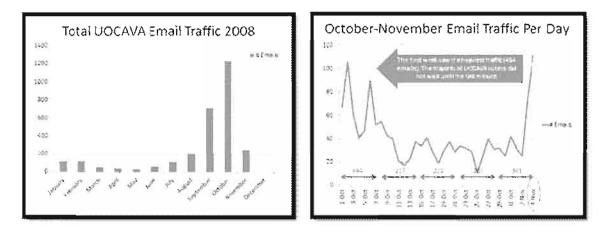
Once the new website format is established and the connectivity interface developed to our existing election management system (EMS), the website will remain current upon any upgrade to the EMS as a whole. The sustainability of the project will require minimal maintenance.

#### 2. Goals and Objectives:

The Maricopa County Elections Department Voter Assistance Program has a mission. That mission is to "ensure equal access to the electoral process for all its citizens and to provide the assistance some voters may require". Voters require assistance for a variety of reasons based on physical and mental abilities, mobility concerns, language skill sets, and for our UOCAVA voters, the challenges of time and distance. Our goal is to eliminate obstacles to the voting process for all eligible voters. Providing services to aid voters is noble; however, if voters don't know that they are available, or how to utilize them, they are useless. Upgrading the voter information interface on the website is an attempt to empower the public to successfully participate in the electoral process at the same level as our standard voting public.

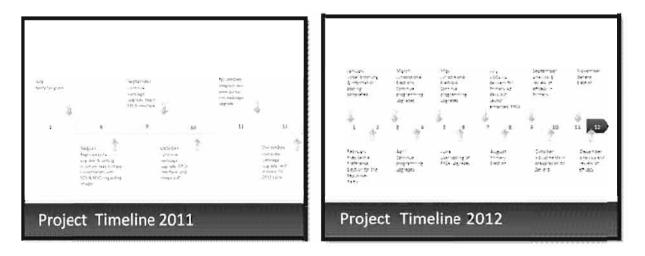
#### 3. Schedule and Milestones:

Analysis of the use of our website in the last presidential election year demonstrates the timeline that we need to be cognizant of to ensure maximization of usefulness:



The election cycle in Arizona will kick-off 2012 with our Presidential Preference Election in February for the Republican Party. Jurisdictional elections will follow in March and May with our Primary Election taking place on August 28<sup>th</sup>. We anticipate having the launch of our online information in January with the back-end processing upgrades ready for testing in June of 2012.

PROJECT TIMELINE:



This timeline is fluid depending on the availability of grant funds (should they be approved) and the number of elections called over the ensuing 18 months. While we anticipate utilizing permanent staff for many of the functions, given that we are also preparing for a Presidential Election we expect that the need will arise for subcontracted labor. Our proposal is founded on that premise and reflects the resources necessary to make that happen.

#### 4. Reports:

Part of this project will focus on the current questions asked in the FVAP Survey as well as the EAC Election Day Survey to incorporate data-gathering and this specific report generation into our election management system. Additionally, the standard UOCAVA analysis will continue to see if there is improvement over established internal benchmarks as well as comparison to national standards.

#### iv. Management Approach:

#### **Definition of Strategic Goals**

UOCAVA voters encounter challenges in requesting, obtaining, and returning voting materials and information in a timely fashion to the detriment of being able to participate in the electoral process to the same extent as their civilian/local counterparts. We seek to overcome some of those barriers with an upgrade to the online UOCAVA services provided by Maricopa County Elections Department with the following actions:

# 1. Streamline the process on the UOCAVA page for voters to determine their registration and covered voter status.

We seek to provide the voter the ability to determine if they are currently registered in our system as a covered UOCAVA voter, as well as the ability to view the expiration date of that coverage, and what mailing & email address we have on file for them.

# 2. Enable voters to update the information used to obtain their ballot, mailing or email address, via the site to reduce ballot "fallout".

Should the voter find that the information we have is incorrect or outdated, the upgrade would allow the voter to update their information via a GUI interface which will interact with existing signature image captures to update their record.

#### 3. Increase functionality of the online, fillable FPCA form.

Currently we have an online, fillable FPCA that is printed off and keyed into our registration and early voting system. This project will seek to establish an increased function such that for an existing voter it will pull their information for verification as well as attach their signature clipimage from our registration records for any modifications. If the FPCA is being used as an initial registration, we will have that data go into our system for voter eligibility validation. We will need to explore the capability for the signature image to be captured from DMV (as we do with the SOS's online voter registration system). Currently 70-75% of the FPCA applicants provide their Arizona driver's license number which will expedite this process.

We will apply practical functions which will increase validity of the information keyed by the voter and positively impact success rates. Recently we added a redundant email field to the online FPCA so that the voter has to key it uniformly twice. Prior to that format change we had

a steady volume of emails which were not valid. By mandating that the applicant key it twice, and consistently, we have eliminated that error and now have all emails reaching the applicant. The overwhelming majority, 70-80%, of our FPCA applicants provide us with an email address.

This back-end automation will prove extremely beneficial to not only the voter, but it will be a better use of resources. As we saw with the implementation of our online voter registration system in Arizona, the keying of a registration form manually costs roughly \$.83 per form whereas the online system is only \$.03.

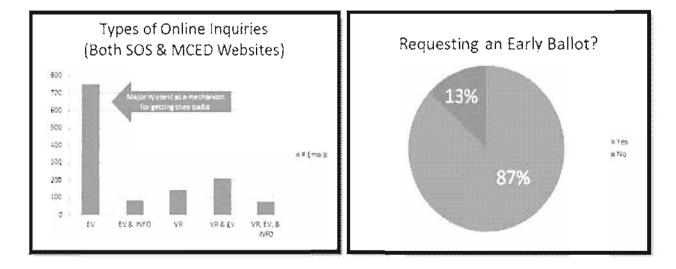
# 4. Publish succinct communication on the entire process including step by step instructions to set voter expectation as well as promoting understanding of their rights and responsibilities.

The publication of an online voter information brochure for the unique challenges and procedures a UOCAVA voter faces will provide the voter with all of the information that they need to successfully navigate the process.

An additional enhancement to voter communication we will implement will be an automated email sent to voters prior to the ballot delivery to ensure that the email address is still valid. Because we have the end date for UOCAVA coverage we also look to provide the voter with an email notification of that expiration date with a link to the fillable FPCA form should the voter be eligible to extend that coverage.

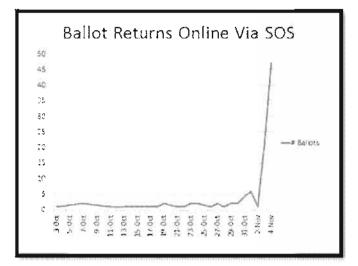
#### 5. Incorporate UOCAVA voter data gathering functions into our results reporting.

By expanding the online functionality of our UOCAVA site we hope to empower voters to remain active partners in their voting process by providing all of the information and tools necessary to ensure MCED has the correct information in order to provide them with their correct balloting materials, in the manner that the voter has designated, with sufficient time for casting and return of the ballot. In the last Presidential Election the majority of UOCAVA voters utilized our online services to obtain their ballot, so that will be a primary focus of our efforts:



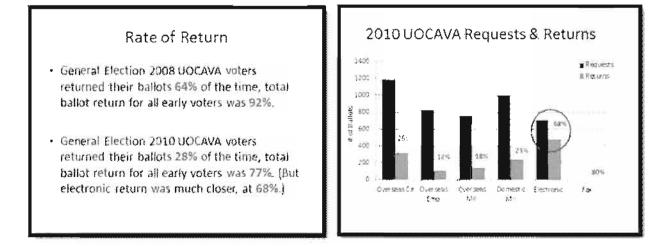
By providing a clear narrative on what the process is, we hope to convey to voters the importance of returning their ballot as soon as they have completed voting, and that they do not have to wait until Election Day. With this message we hope to provide sufficient time to address any voter's concerns or issues with an appropriate window of time for resolution before the 7 PM deadline on election night.

In the 2008 election many voters returned their ballot via the Secretary of State's secure portal on Election Day;



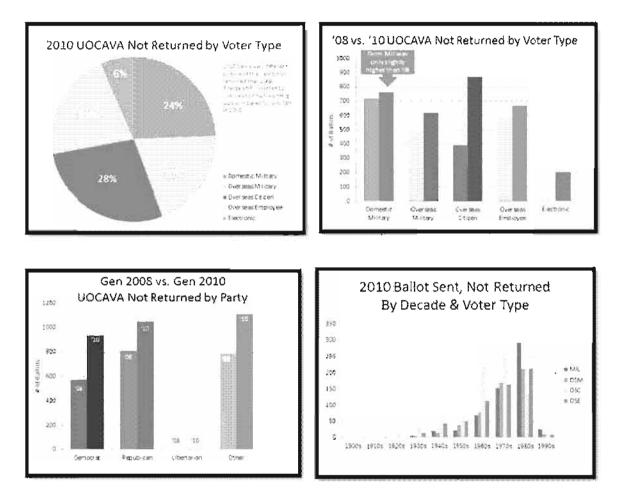
#### **Analysis of Current Process**

The 2010 General Election saw a dramatic decrease in the number of returned early ballots mailed out to the voters of Maricopa County. Prior to the last General Election we enjoyed a return rate in the low 90s% for the majority of our voters who vote by mail. However, the 2010 election saw a return rate for our overall population plummet to only 77%. UOCAVA voters were no exception to the reduced return rate; they returned their ballots only 28%--well below even the 2006 mid-term election return rate. Yet, the ability to return the voted ballot electronically dramatically improved performance of UOCAVA ballot casting:



In the 2008 election the disparate return rate of Standard to UOCAVA ballots was a spread of almost 30 percentage points. In 2010, with the expansion of the electronic return, we saw that gap narrow to just under 10 percentage points for UOCAVA voters who selected that return option. The additional functions of the website will engender more accurate information and should increase the success rates of both the ballots returned electronically as well as those voters who select the traditional method of returning their paper ballot.

By conducting a full analysis of the voter profile of ballots which were not returned we are able to isolate the voting population most vulnerable:

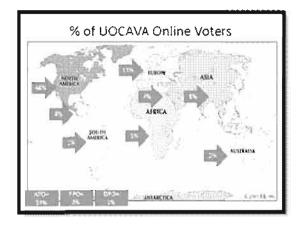


This analysis also demonstrates that we have an opportunity to increase the success rate of our electronic balloting voters as there were 200 voters who did not return their voted ballot. We believe that by clearly defining the process we will be able to improve upon that metric. Younger voters have an expectation of online capabilities and we seek to increase their participation as well by ensuring that level of e-service.

#### Identification of Potential Risks and Mitigating Strategies

The UOCAVA population is global. This can be viewed as both a security risk as well as an asset. Because voters are dispersed to the far corners of the world and cast their ballots over a 45

day period, 24 hours a day, the ability to isolate and target the ballot casting process provides an inherent security. Our analysis of voters who utilized the online options also demonstrated that almost half of them were stateside:



It is important to note however, that regardless of the ballot casting option that the voter selects, either via paper ballot or electronic return, eventually all ballots are funneled into a central collection point albeit via the United States Post Office or a secure server. It is at this point of cast ballot reception where the electronic method may actually prove more secure in that the paper ballots are collected and returned to the United States for *all 50 states* at those USPS distribution centers, whereas the electronic return has *50 unique* server locations. Additionally, the number of individuals who have physical access to the paper ballots en route would be greater than the number of individuals who have the knowledge and skillset to hack into secure government servers.

But the system must vigorously defend against any electronic attack, at every point of the process. By ensuring that the voter is authenticated at the onset by providing personal information matching their registration record, or for those completing an FPCA with dual registration and ballot request functions that they are eligible electors, the singular request can be secure. We seek to determine if the addition of a CAPTCHA function to registration and ballot requests will increase the level of security from an automated attack, thus reducing the risk of wide-scale targeted attacks.

Voters using the online services for registration look-up, ballot requests, FPCA submission, etc. will have their IP address captured and tied to the function they are performing. Multiple requests from a single IP will be one trigger in the oversight of the system to determine if this is a public terminal or multiple requests coming from a single location.

Security is further reinforced when voters have the ability to verify their registrations and ballot status as they are then able to view if a request was made without their knowledge. We cannot solely rely on the voters' due diligence however as many may not take advantage of this option.

#### **Formalized Performance Indicators**

The indicators that we have selected will be a moving target—turnout varies depending on the election: if there are close races on the ballot, if there are any controversial propositions or referendums, how charismatic the candidates are, etc. So we seek to engage the UOCAVA voter at an equal rate of the general population for that given election.

**Indicator:** Increase the percentage of effectively cast ballots by UOCAVA voters. **Goal:** Equal to, or better, participation rates of the general population.

**Indicator**: Reduce the percentage of ballots returned as undeliverable. **Goal**: Equal to, or better, participation rates of the general population.

**Indicator:** Reduce the percentage of ballots not returned. **Goal:** Equal to, or better, participation rates of the general population.

**Indicator**: Reduce the percentage of rejected ballots due to invalid or lack of signature. **Goal**: Equal to, or better, participation rates of the general population.

**Indicator**: Reduce the percentage of rejected ballots due to late return. **Goal**: Equal to, or better, participation rates of the general population.

#### **Justification for Modification of Existing Processes**

The success of the electronic process in the 2010 election cycle, particularly in lieu of the historically low return rate, demonstrates the voter's acceptance and growing reliance on the ability to participate in the electoral process via an online method. What we must do is enable the voter the ability to obtain the information that they seek and utilize it to effectively cast their ballot in an environment that is as secure as our existing UOCAVA voting system.

#### **Projections of Efficacy**

After review of the positive impact of the electronic pathways utilized to provide, and receive ballots back from, the UOCAVA population we anticipate that the success rates for voters who select that option to be on par with the general voting population for Maricopa County. Voters who select the traditional paper ballot delivery will still see an improved participation rate due to the better quality of information being utilized.

#### **Performance Measurement**

The performance indicators will be analyzed in comparison to both the general voting public for each election, as well as in context to historical trends of the UOCAVA population in Maricopa County. Voting trends will look at age of the voter, party affiliations, UOCAVA voter type (Military, Overseas Military, Overseas Employee, and Overseas Citizen), and method of casting ballot (standard, electronic, via fax).

#### 1. Current and Pending Project Proposal Submissions:

Maricopa County Elections Department does not currently have any other funding support for UOCAVA activities.

#### 2. Qualifications:

#### Rey Valenzuela:

Years with MCED: 21 Area of Expertise: UOCAVA, Early Voting, Voter Registration, Ballot Layout Professional Certifications: 2008 Auburn University, CERA certified Certified Election Official of Arizona Professional Association: Standards Board (2006 +) Professional Awards: 2000 Computerworld Smithsonian Collection Laureate Award: Vote-by-Mail 2005 NACo Achievement Award: Military and Overseas Voter Project

#### Terry Thompson:

#### Years with MCED: 19

Area of Expertise: IT Director, Systems Architect Education: DeVry University, Bachelor of Science in Computer Science Professional Certifications: Certified Microsoft Developer, Certified Microsoft Systems,

#### **Professional Awards:**

2000 Computerworld Smithsonian Collection Laureate Award: Vote-by-Mail
2005 NACo Achievement Award: Military and Overseas Voter Project
2007 NACo Achievement Award: Election Reporting Database
2007 Election Center Best Professional Practice Award: Election Reporting Database
2007 Harvard University's Kennedy School of Government's Ash Institute Top
50 Innovations in Government: Election Reporting Database
2008 NACo Achievement Award: Voter Assistance & Alternative Format
Information Website
2010 Harvard University's Kennedy School of Government's Ash Institute Bright

Ideas Award: *Election Reporting Database* 

#### David Fee:

#### Years with MCED: 11.5

Area of Expertise: IT/Project Manager of Application DevelopmentEducation: Bachelor of Science in Information TechnologyProfessional Certifications: Certified Microsoft Developer, Currently studying for PMP certification

#### **Professional Awards:**

2000 Computerworld Smithsonian Collection Laureate Award: Vote-by-Mail 2005 NACo Achievement Award: Military and Overseas Voter Project 2007 NACo Achievement Award: Election Reporting Database 2007 Election Center Best Professional Practice Award: *Election Reporting Database* 

2007 Harvard University's Kennedy School of Government's Ash Institute Top 50 Innovations in Government: *Election Reporting Database* 

2008 NACo Achievement Award: Voter Assistance & Alternative Format Information Website

2010 Harvard University's Kennedy School of Government's Ash Institute Bright Ideas Award: *Election Reporting Database* 

#### Tammy Patrick:

#### Years with MCED: 8

Area of Expertise: Federal Compliance VRA, HAVA, ADA, UOCAVA, NVRA Education: 1991 Purdue University, Bachelor's Degree in American Studies Professional Certifications: 2007 Auburn University, CERA certified Certified Election Official of Arizona

#### **Professional Associations:**

Election Assistance Commission Unwritten Languages Working Group (2008), Election Assistance Commission Election Canvassing Working Group (2009), Election Assistance Commission Urban/Rural Voting Working Group (2010), Election Center Legislative Committee (2005+),

Election Center Task Force on Education & Training (2007-2008),

Election Center Benchmarking Task Force (2010+),

Pew Center on the States Data for Democracy Initiative (2008)

Pew Center on the States Advisory Board on the Performance Index (2008+),

Pew Center on the States Voter Modernization Project (2009+),

Pew Center on the States Voter Information Project (2011+),

Uniform Law Commission Observer, UMOVA (2009-2010)

#### **Professional Awards:**

2005 NACo Achievement Award: Boardworker Voter Assistance Training Enhancement Program

2006 NACo Achievement Award & Best In Category Award: Voter Language Assistance Proficiency Assurance Program

2007 NACo Achievement Award: Election Reporting Database

2007 Election Center Best Professional Practice Award: *Election Reporting Database* 

2007 Harvard University's Kennedy School of Government's Ash Institute Top 50 Innovations in Government: *Election Reporting Database* 

2008 NACo Achievement Award: Voter Assistance & Alternative Format Information Website

2008 Arizona Disability Advocacy Coalition's ADA Liberty Patriot Award 2009 NACRC Best Practice Award: *Disaster Recovery Plan* 

2010 Harvard University's Kennedy School of Government's Ash Institute Bright Ideas Award: *Election Reporting Database* 

#### v. Budget Proposal

The estimated time to complete the website enhancement is approximately 1060 programming and testing hours, the reporting automation 400 programming and testing hours. We anticipate that the first project will be done 80/20 staff to contractor with the second 20/80 as it will fall later in the presidential election cycle.

Itemized B a) Dir	Budget: rect Labor:			\$32,480.00
		taff Hours @ \$35.00   taff Hours @ \$35.00	-	
b) Ad	ministrative/Cler	rical Labor		\$ 27,720.00
			10nths X \$35.00 HR= \$2,520 X 18 Months X \$35.00 HR=	
c) Fri	inge Benefits/Ove	rhead etc.		(\$15,050.00)
• Ber	• Benefits and overhead considered as matching applicant funds.			
	avel VAP meetings:	Airfare average Hotel average Per Diem average Taxi & shuttle Estimated Total=	\$350 \$200 per night X 3 nights- \$75 \$100 \$1200 per attendee per me	
• Pos	ssible site visitatio	n: Washington State S	SOS; Oskaloosa, FL; TBD.	
e) Sul	bcontract			\$79,800.00
		ours @ \$150.00 HR = ours @ \$150.00 HR =		
g) Ma	nsultants—NA aterials & Supplie her Direct Costs–			0 0 0
Total Requ	iest:			\$150,000.00

Maryland State Board of Elections Volume 1 – Technical Proposal

#### Grant Information:

Catalog of Federal Domestic Assistance Number: 12.217

BAA number: H98210-BAA-11-0001

Title of Proposal: Online Voter Registration & Ballot Marking and Counting: An Adaptable and Open Source Solution

#### Applicant Information:

CAGE Code (b)(4)	
DUNS number: (b)(4)	

Applicant: Maryland State Board of Elections Linda Lamone, State Administrator

> Technical contact: Cheré Evans Maryland State Board of Elections P.O. Box 6486 Annapolis, Maryland 21401-0486 Office: 410,269,2935 Fax: 410.974.2019 Email: cevans@elections.state.md.us Administrative contact: Nikki Baines Trella Maryland State Board of Elections P.O. Box 6486 Annapolis, Maryland 21401-0486 Office: 410.269.2843 Fax: 410,974,2019 Email: ntrella@elections.state.md.us

Known Contractors and Sub-Recipients Information: Research Consultant: Overseas Vote Foundation Software Development Consultant: The Canton Group

Proposed Period of Performance: Date of Award - April 2013

*Proprietary Information:* SBE has designated as proprietary four pages in the appendices to the *Volume 2 – Budget Proposal.* The pages with proprietary information are pages 13 and 14 of Appendix A and pages 19 and 20 of Appendix B.



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# 1 Technical Approach and Justification

### 1.1 Executive Summary

Over the years, the State of Maryland has implemented measures – including many recommended by the Federal Voting Assistance Program (FVAP) – that have made voting more accessible for Maryland's uniformed and overseas voters (UOCAVA voters). With funds from the FVAP's Electronic Absentee Systems for Elections Grants, the Maryland State Board of Elections (SBE) will improve the participation and voting experience of UOCAVA voters by implementing an online voter registration system and enhancing the State's existing online absentee ballot delivery system. This proposal is significant in that it addresses three critical components of the voting process – registering to vote, requesting a ballot, and voting the ballot.

The proposed online voter registration system will be a new system in Maryland. SBE inhouse technical resources will design and develop the system to:

- 1. Allow UOCAVA voters to register to vote in Maryland or update their existing voter registration record online
- 2. Allow UOCAVA voters to submit a request for an absentee ballot as part of their online voter registration application
- 3. Be cost-effective, sustainable, and easily adapted for use by other jurisdictions using different voter registration systems

The proposed innovative enhancements to the State's online ballot delivery system are:

- 1. Integrating a ballot marking wizard tool
- 2. Capturing the voter's selections in a barcode that can then be used during canvassing to reproduce the voter's ballot in an optical scan readable format
- 3. Designing a cost-effective and scalable ballot delivery system that does not have to be used with the existing voter look-up website but can be shared with and easily implemented in other jurisdictions

In partnership with the Overseas Vote Foundation (OVF), SBE proposes to collect data to measure voter satisfaction with and the effectiveness of the registration and balloting process, ballot return, and acceptance rates and to track intervening variables that may impact results. A post-election survey of UOCAVA voters will be conducted, and data will be compared across time and across states.

#### 1.2 Goals and Objectives

SBE proposes to develop, maintain, and host two web-based systems – an online voter registration system and online absentee ballot delivery system – for the life cycle of both systems.<sup>1</sup> The decision to develop and manage these systems internally (as opposed to buying a vendor's solution and the associated support and maintenance packages) is possible because of SBE's existing, in-house technical expertise. This offers two significant, cost-effective benefits:

- 1. Existing technical staff with extensive knowledge of the voter registration and absentee ballot process will develop the systems internally. This will allow SBE to maintain ownership of the base code and data, maintain the system at lower costs, and make modifications quickly and cost-effectively.
- 2. SBE will build a generic, system-neutral interface with existing election systems. Because Maryland will be returning to a paper-based voting system, it is prudent to develop the proposed systems so that extensive programming is **not** required if and when the existing systems change. This is a more sustainable and affordable model than tightly integrating the proposed web-based systems with the State's current election systems.

Another benefit of the proposed model is that SBE's systems can be easily shared with other jurisdictions. While the recipient jurisdiction will need to make software changes to reflect its laws and practices, radical changes will **not** be needed to integrate with their existing systems. SBE also intends to minimize logic that is specific to Maryland, which further eases implementation in another jurisdiction. This scalable model can offer other jurisdictions a proven and no-cost solution.<sup>2</sup>

After thorough internal testing, SBE proposes to consult with outside security auditors to review the code base and conduct a security audit and penetration testing for both systems.<sup>3</sup> Once the code base has been reviewed and found to be secure, the code will be licensed as open source under the GPL-3.0 license<sup>4</sup> and subsequently released. At that point, any individual can review the code base for security flaws, and SBE will establish a process to receive and review any feedback. It will also allow another jurisdiction or vendor to use the code and modify it as needed on the condition that the code continues to be open source.

The existing online absentee ballot delivery system (described in more detail in Section 1.2.2.1) currently includes measures to protect users' personal identifying information and any transmitted election material. The system's auto-generated documents are created when the voter selects the link to print the documents and are not stored in the system once the voter closes the window with the documents displayed. If there are five minutes of inactivity, the system

<sup>&</sup>lt;sup>1</sup> While the State has an existing online absentee ballot delivery system, SBE is rewriting the code because the existing system includes hardcoded business logic, is tightly bound to the State's existing voter look-up website, and will not work with SBE's choice of web servers.

<sup>&</sup>lt;sup>2</sup> Both systems will be designed to provide information in English and Spanish and will be coded to add additional languages as needed.

<sup>&</sup>lt;sup>3</sup> The proposed security audit will include physical access testing, software and server hacking, and a review of the code for security holes.

<sup>&</sup>lt;sup>4</sup> http://www.opensource.org/licenses/gpl-3.0.html

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ends the voter's session, and the voter must re-enter the system. Because the unique documents exist only as long as the voter has the window open on his or her computer and no longer than five minutes, there is reduced risk that someone other than the voter can obtain the documents. The database is behind a secure firewall, and the website has an industry standard SSL security certificate. In addition to incorporating existing security measures, the re-written online absentee ballot delivery system and the proposed enhancements to the online absentee ballot delivery system will also meet the National Institute of Standards and Technology guidelines for distributing blank ballots.

The proposed online voter registration system and proposed enhancements to the online absentee ballot delivery system collectively address voter registration, ballot request, and ballot delivery. The impact of these systems will be significant as it will improve how UOCAVA voters interact with three critical aspects of the voting process.

# 1.2.1 Online Voter Registration System

In its 2011 Legislative Session, the Maryland General Assembly authorized online voter registration. Generally, an individual must have a Maryland driver's license number or Maryland identification card number to use the online registration system. A UOCAVA voter who does not have either number may use the system if he or she enters a social security number and consents to use this number as his or her signature. A paper signature will not be required.

Because users must provide an identifying number to use the online voter registration system, the application will query in real-time the Maryland Motor Vehicle Administration's database to validate the driver's license or identification number. For UOCAVA applicants who provide a social security number, the application will store the number and include it in the next file of social security numbers that is sent to the Social Security Administration for verification. Files are generally sent three times a week but increase to six times a week before an election.

The online voter registration system will not directly interface with the voter registration system. Instead, the online voter registration system will use a custom database schema with look-up tables for screen display and saving voter registration data, and it will use and then transfer the data to the production voter registration system database. This transfer eliminates the need for the local boards of elections to enter manually voter registration data, and the lack of direct interface with the statewide voter registration system will enable other jurisdictions to use SBE's system with limited code changes.

SBE's preferred method of data transmittal to the voter registration database is an XML file that complies with the EML standards currently being developed by the IEEE. If, however, IEEE's standards are not published in time for implementation, SBE will use a database table available for back-up and restore to production. A future modification will include changing the data transfer process to use an XML file. This is necessary for ease of use by other states.

SBE's online voter registration system will be written in ASP.Net using Visual Basic (VB) and will work with either Oracle or SQLServer. The system will be installed on a robust set of servers that will be both load balanced and configured, so additional servers can be added easily if needed.

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Offering UOCAVA voters a way to register to vote and to request an absentee ballot online dramatically simplifies the registration process, eliminates the transit time that prevents some UOCAVA voters from participating in the election process, and reduces the likelihood of election officials' data entry processing errors, which can lead to misrouting of registration and voting materials. SBE, with OVF, proposes to evaluate whether an online voter registration system increases UOCAVA voter participation and satisfaction. One method of evaluating voter participation is to compare the number of untimely voter registration applications and requests for absentee ballots from the 2008 General Election to the number of untimely applications and requests for absentee ballots will be one measure of the proposed system's success.

### 1.2.2 Online Absentee Ballot Delivery System

In July 2012, SBE will maximize the cost-effectiveness of the State's existing online absentee ballot delivery system by transitioning from a vendor-supported system to an internally supported and managed system. SBE's internal technical expertise, supplemented with outside consulting services, will enable the State to have direct control over the system and more effectively manage current and future costs.

# 1.2.2.1 Overview of Existing Online Absentee Ballot Delivery System

The State's existing online absentee ballot delivery system is tightly integrated with the State's secure voter look-up website (www.elections.state.md.us). To access the voter look-up website, the user must enter his or her first and last name, date of birth, and zip code. If the information entered matches that of a registered voter, voter information is displayed.

When ballots are ready for transmission, SBE sends an email to each voter who requested an electronic absentee ballot. In this email, SBE gives the voter the link to the voter look-up website and a tracking number that is unique to the voter, the ballot, and the election. When the voter logs into the voter look-up website, he or she clicks on the link to the voter's absentee ballot for the requested election and is prompted to enter the unique tracking number.

After entering the correct tracking number, the voter views and prints the absentee ballot and all of the associated documents. The system seamlessly selects the correct ballot and auto-generates static documents that are unique to the voter.<sup>5</sup> The voter makes selections on the printed ballot and returns by mail the voted ballot, signed oath and other requested documents.

This system was first used in the 2010 elections and improved the efficiency and accuracy of distributing electronic absentee ballots. Prior to this system, election officials created individual emails and manually attached the appropriate documents for the voter. The system eliminated the risk of attaching the wrong ballot or documents and replaced the manual and time-consuming process of creating individual emails.

<sup>&</sup>lt;sup>5</sup> Under Maryland law, an absentee voter must submit a signed oath with his or her absentee ballot. The system creates a unique oath for each voter and auto-populates the voter's name and tracking number on the oath template.

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For a variety of reasons, electronically delivered absentee ballots cannot be read by the State's optical scan voting system. First, timing marks on optically scanned ballots must be exact, and most printers cannot print to this exactness. Second, ballots must be of a certain paper weight (90 lb), and most voters do not have access to this weight of paper. Lastly, only paper of certain sizes can be read by these units. The standard paper size for overseas citizens (A4) is not scannable by an optical scan voting unit. As a result, electronically delivered absentee ballots must be duplicated when they are returned for canvassing. Under the current system, the process of duplicating ballots is manual, with bipartisan teams of election officials transferring votes from the electronically delivered absentee ballots to scannable ballots.

Since the 2006, 2008, and 2010 elections, SBE has tracked the number of UOCAVA ballots received by day. SBE will track this data for the 2012 elections to establish whether the number of timely UOCAVA ballots has increased. This is the expected outcome if UOCAVA voters receive their absentee ballots earlier and have more time to complete and return them. Comparing the 2012 data to the 2008 election will be most helpful as the elections are of the same type (presidential) and follow the same election calendar, but SBE will also compare 2012 data with the 2010 General Election as it was the first election after the passage of the Military and Overseas Voter Empowerment Act.

# 1.2.2.2 Proposed Enhancements to Existing System

To improve the voting experience for UOCAVA voters and the accuracy of their ballots, SBE proposes two enhancements for the 2012 General Election: (1) an online ballot marking wizard; and (2) printing a barcode on the voter's ballot that represents the voter's selections. These proposed enhancements will improve the accuracy and readability of the voter's ballot, reduce voter intent issues, and ease the administrative burden on local election officials of duplicating ballots during canvassing.

# 1.2.2.2.1 Online Ballot Marking Wizard

With this wizard, the voter will make his or her voting selections on a computer, review a summary screen showing the selections he or she made, and print a ballot with the voter's selections marked. This wizard will improve the accuracy and readability of the voter's voted ballot as it will be designed to prevent overvotes and other voter errors, decrease the likelihood that an election official has to determine the intent of the voter, and increase voter satisfaction with the voting process. These benefits will lead to increased ballot return and acceptance rates.

With voters using the ballot marking wizard, the accuracy of the ballot should improve and the error rate for voters using the wizard should decrease, including the number of "no votes<sup>6</sup>." SBE, with OVF, will compare 2012 error rates with rates from the 2008 General Election and error rates on ballots completed using the online ballot marking wizard with rates on ballots completed by hand. Additionally, SBE and OVF will evaluate voter satisfaction with the wizard.

<sup>&</sup>lt;sup>6</sup> A "no vote" is a ballot on which the voter did not cast a vote for the highest contest on the ballot.

# 1.2.2.2.2 Use of Barcodes on Voted Ballots

SBE proposes to integrate into its online absentee ballot delivery system innovative technology that will capture the voter's selections and other ballot information in a barcode printed on the voter's ballot. The voter will mail to the appropriate local board of elections his or her voted ballot with the barcode printed on it, and during canvassing, the local board of elections will use the barcode to produce a ballot that can be scanned by Maryland's current optical scan voting units used for absentee voting.

To implement this technology, each local board of elections will need:

- 1. At least one ballot-on-demand printer capable of printing up to 18" ballots with such precision that the State's optical scan voting system can scan and read the selections
- 2. At least one barcode scanner to read the barcode printed on the voters' ballots
- 3. Windows PC installed with the .Net 4.0 framework, a lightweight database system, and Adobe's Acrobat Reader
- 4. SBE's software, which will be written in ASP.Net using VB and use the free iTextSharp library for manipulating PDF documents

The software referenced above has two different functions. First, the software will convert the selections made with the online ballot marking wizard into a Quick Response (QR) barcode<sup>7</sup> and print the barcode on the voter's ballot. This functionality requires an enterprise database.

Second, the software will be used during canvassing to print a ballot with the voter's selections that can be read by an optical scan voting unit. For this function, the software requires a lightweight, single user database. Prior to each election, SBE will update the database with ballot display details (position of timing marks, etc.) and load onto the Windows PC PDF versions of each ballot. When a local election official scans the QR barcode, the software will use the information in the barcode (e.g., ballot style and precinct identifier) to locate the ballot details in the database, determine which PDF document is the correct ballot for that voter, and using the appropriate positions defined in the database, fill the selections onto the ballot (in memory). Finally, the software will display the filled in ballot in PDF form, and the local election official can print it on official ballot paper. This ballot can then be scanned and read by one of the State's optical scan voting units. Before scanning, a bipartisan team of sworn election officials will compare the two ballots to ensure that the voter's selections are accurately reflected on the scannable ballot.

This innovative enhancement has two significant benefits over the current process of manually duplicating ballots. First, it serves an important safeguard during the canvassing process and improves the accuracy of the counting process by reducing the risk of transcription error when manually duplicating a ballot. It also improves the efficiency of the canvasses

<sup>&</sup>lt;sup>7</sup> A QR barcode is a two-dimensional barcode that is readable by QR barcode readers and camera telephones. It consists of black modules arranged in a square pattern on a white background.

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conducted by local election officials by replacing a manual process with a primarily automated process with a manual verification.

Second, the hardware associated with this enhancement can be used to print ballots that can be scanned by the optical scan voting unit. Due to the complexity of printing ballots, the State has only one certified ballot printer, and the proposed ballot-on-demand printers can be used to print ballots if Maryland's certified ballot printer is unable to provide absentee ballots on a timely basis. These printers provide a cost-effective, back-up solution to ensure that absentee ballots are transmitted to UOCAVA voters by the 45<sup>th</sup> day before an election.

### 1.2.3 Research and System Evaluation

SBE proposes to partner with OVF, a leader in research concerning overseas and military voters and voting, to evaluate the proposed systems' impact on UOCAVA voters' participation, satisfaction, and success. Research and system evaluation are important to establishing the long-term sustainability of a project. Through measurement and analysis, SBE will be able to identify those parts of the system with which voters had the most trouble (e.g., registration vs. balloting) and make adjustments for future elections.

OVF proposes to establish metrics to measure outcomes and the collection of accurate data. OVF's metrics for success include both micro-level individual data (such as voter satisfaction with the registration and balloting processes) as well as macro-level data (such as usage of the online absentee ballot delivery system and ballot return and acceptance rates). These metrics also provide a basis for comparisons across states and facilitate the collection of comparable data.

During both the registration and balloting phase, OVF, with SBE's assistance, will collect data important to measuring outcomes and track those intervening variables that would impact results. These variables include voter experience (e.g., new voters versus experienced voters), the type of voter (civilian or military), age, education, and gender. OVF proposes to measure voter satisfaction in an online post-election voter survey and collect from election officials aggregate data after the election.

Measuring the success of program implementation not only involves comparisons across elections but also comparisons across states. A comparison of the results from 2010 to 2012 may produce skewed results, due to the expected overall voter turnout increase for 2012, a presidential election year. Therefore, a more accurate comparison would be ballot return rates and ballot acceptance rates.

In partnership with SBE, OVF will help SBE:

- 1. Identify and define metrics for success, important variables to include in the study, and baselines for comparison with other states
- 2. Prepare monthly reports

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- 3. Design, distribute, conduct and analyze the 2012 Post-Election Maryland voter survey
- 4. Prepare a final report analyzing the 2012 experience and final metrics. This final report will include comparisons across time and states and will use OVF's existing post-election research and access to data from other states

	Project		
Task	VR*	AB**	End Date
Hire technical consultants	V	V 1	30 days after award notice
Procure hardware & software	√	1	10/1/2011
Quarterly financial report		V	10/31/2011
Hardware delivery	$\checkmark$	V	11/1/2011
Software delivery		$\checkmark$	11/1/2011
Hardware installed		1	1/1/2012
Software installed	√	V	1/1/2012
Test printers			1/1/2012
Coding and development	$\checkmark$	1	1/1/2012
Data Access Layer	$\vee$		8/31/2011
Business Objects Layer		1	10/31/2011
Absentee Ballot Wizard Interface		V	11/30/2011
User Interface Layer		V	12/31/2011
Quarterly financial report		V	1/31/2012
"Go Live" Date			7/1/2012
Printer delivery to local boards of elections			7/1/2012
Quarterly financial report	√	V	4/30/2012
Code testing & review	$\checkmark$		3/1/2012
2012 Primary Election: Early Voting			3/24 - 3/29/2012
Security Audit		√	3/31/2012
2012 Primary Election: Election Day			4/3/2012
Mock Election testing			4/1 - 5/31/2012
Quarterly financial report			7/31/2012
"Go Live" Date			9/2012
2012 General Election: Early Voting			10/27 - 11/1/2012
Quarterly (annual) financial report	V		10/31/2012
2012 General Election: Election Day			11/6/2012
Post-election survey	$\checkmark$		11/6/2012 - 12/30/2012
Quarterly financial report	$$	√	1/31/2013
Data collection & analysis	$\vee$		2/15/2013
Final report	$\checkmark$		3/31/2013

# 1.3 Schedule and Milestones

# Table 1 - Proposed Schedule and Milestones

\* VR is the online voter registration system.

\*\* AB is the online absentee ballot delivery system and the proposed enhancements.

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# 1.4 Reports

SBE proposes to provide performance, data and financial reports during the performance period of this project. Performance and data reports will be prepared monthly, and financial reports will be prepared quarterly. These reports will be submitted at the interval established by FVAP. The final report will be provided by April 30, 2013.

SBE and OVF propose to provide monthly data reporting starting July 1, 2012, when the online voter registration system is scheduled for implementation. The monthly reports will incorporate data collection points, which will allow election officials to monitor usage and evaluate the impact of any outreach efforts. If outreach efforts do not have the desired effect, election officials can adjust their plans to distribute resources in an effective manner.

Reporting measurements will include:

- 1. A comparison of the submission and success of UOCAVA applicants using the online voter registration system to register to vote, update voter registration records, or request an absentee ballot against the submission and success of UOCAVA applicants using the Federal Post Card Application or other paper form
- 2. Data on the absentee ballot delivery methods requested by UOCAVA voters
- 3. A comparison of the success of UOCAVA voters using the online absentee ballot delivery system against the success of UOCAVA voters who received absentee ballots by mail
- 4. A comparison of the acceptance and error rate of UOCAVA ballots completed using the online absentee ballot delivery system against the acceptance and error rate of ballots completed manually

Upon request of FVAP, SBE will provide data reports after the grant performance period. Without on-going funding, however, SBE would not be able to conduct and analyze a postelection voter survey.

# 2 Management Approach

# 2.1 Strategic Goals

The goal of the proposed projects is to simplify the voter registration and ballot marking process for UOCAVA voters and to improve the accuracy and efficiency of the ballot canvassing process. The proposed systems offer UOCAVA voters a secure and efficient way to submit voter registration information, request absentee ballots, and mark absentee ballots. The expected outcome is that UOCAVA voters will have increased rates of voter participation and satisfaction and that the accuracy of the voted ballots will improve.

SBE's decision to use internal resources to develop and maintain the proposed systems is based on the hypothesis that these systems will be more cost-effective to maintain over the systems' life cycles and that modifications can be made quickly and efficiently. SBE staff members with extensive knowledge of existing systems can efficiently apply that knowledge when developing and maintaining the proposed systems.

# 2.2 Project Methodology

In all information technology (IT) projects and conducting elections, SBE uses the project management approach methodologies in accordance with the Project Management Institute's *Project Management Body of Knowledge*. These methodologies will also be applied to the proposed online voter registration system and the online absentee ballot delivery system. SBE has already conducted an extensive planning process for both of the proposed systems. Each project will follow a project schedule with milestones and tasks that will provide structure and a roadmap for completion in a timely, cost-effective manner. Each project team lead will drive the project schedule and maintain communication of project status through weekly team status meetings.

# 2.3 Personnel, Resources & Consultants

SBE's proposed systems take advantage of SBE's existing, in-house resources. Because the proposed systems are interrelated and under simultaneous development, there will be some overlap in the SBE's personnel roles. Between the two projects, no more than eight SBE employees will be required during the development period.

To supplement SBE's in-house resources, SBE proposes to contract with two individuals to provide short-term, technical support with completing and reviewing the initial technical development. Additionally, these projects will require four consultants to address aspects of the proposal that SBE does not have the capability to handle with internal resources.

For the two proposed systems' organizational charts, see Appendix A. Both projects will have the following personnel:

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- Leading each project will be a **project sponsor**, who will work closely with the respective project manager to coordinate the technical staffing and consultants and collaborate on overall project direction and progress.
- The **project manager** will be the primary contact for the project, including staffing and consulting resources. The project manager will be responsible for the project's schedule and budget and will ensure that project tasks are timely completed and, if necessary, that changes are incorporated into the project plan and communicated to the project sponsor.
- The **technical specialist** will report directly to the project manager and will be primarily responsible for the technical development of the system and giving direction and scope to the technical consultants.
- The **webmaster** will work with the technical specialist and technical consultants to incorporate the online functionality into SBE's existing website and will ensure that the "look and feel" of SBE's website is easy to use and aesthetically pleasing.
- There will be two **technical consultants** one for each of the proposed projects to assist with technical development. Each consultant will be under the supervision of the SBE's technical specialist and will be expected to work approximately 660 hours.
- The proposed **research & reporting consultant** is OVF. OVF will develop research tools that meet FVAP's grant objective. OVF's liaison for both projects will be the project manager for the online absentee ballot delivery system project.
- The **website hosting consultant** will be a contractor, who will provide web-hosting services for the two proposed projects. This consultant will report to SBE's technical specialist.
- The **IT** security consultant will be a contractor, who will perform IT security testing, auditing, and reporting to ensure that SBE's proposed systems are secure for UOCAVA voters. The liaisons for this contractor will report to the project manager of each system.

Several consultants are proposed for only one of SBE's proposed systems:

- The **project management support specialist** will report directly to the project manager of the online absentee ballot delivery system and will be the secondary point of contact for staffing and consulting resources. This person will help the project manager keep the project on schedule and on budget.
- The voting system subject matter expert (SME) will provide voting system technical and subject matter expertise for the proposed enhancements to the online absentee ballot delivery system. This individual will report to the project manager for the online absentee ballot delivery system.

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- The **technical support specialist** will report to the project manager for the online absentee ballot delivery system and will work closely with the technical specialist and technical consultant assigned to this project to provide additional technical direction and expertise for the proposed enhancements to the online absentee ballot delivery system.
- The **software development consultant** is The Canton Group, the vendor that maintains the State's statewide voter registration database. The Canton Group will make the necessary software changes so that the statewide voter registration system can accept data from the online voter registration system. The liaison for this company will report directly to the project manager of the online voter registration system.

SBE Employee	SBE Title	Voter Registration System Role	Absentee Ballot Delivery System Role
Ross Goldstein	Deputy Administrator	N/A	Project Sponsor
Mary Wagner	Voter Registration Director	Project Sponsor	N/A
Nikki Trella	Election Reform Director	N/A	Project Manager
Stacey Johnson	Voter Registration System Administrator	Project Manager	PM Support Specialist
Cheré Evans	Database Specialist	Technical Specialist	Technical Specialist
Natasha Walker	Webmaster	Webmaster	Webmaster
Paul Aumayr	Voting System Project Manager	N/A	Voting System SME
Andrew Johnson	Technical Specialist	N/A	Technical Support Specialist

The table below identifies SBE's employees assigned to the project and their respective roles.

Table	2 -	SBE	Resources
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2.4 Existing Processes, Risks and Mitigation Strategies, and Performance Indicators

# 2.4.1 Voter Registration and Absentee Ballot Request Process

Currently, a UOCAVA voter is required to submit a voter registration application<sup>8</sup> by mail to register to vote in Maryland. The completed application is required by mail because State law requires an original signature when an individual registers to vote. This requirement increases the time needed to become a registered voter and increases the risk – especially for UOCAVA voters – that the completed application will not be timely received by the appropriate local board of elections.

If a UOCAVA voter who is already registered to vote wants to update his or her voter registration information or request an absentee ballot, s/he can submit the request via mail, fax, or email (scanned as an attachment). While a signature is required to make a change to a voter registration record or request an absentee ballot, the signature does not have to be an original

<sup>&</sup>lt;sup>8</sup> To register to vote, update information, and/or request an absentee ballot, a UOCAVA voter can submit either a Federal Post Card Application or the State's voter registration application and the State's absentee ballot application.

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signature. As a result, the local boards of elections can accept and process changes to voter registration records and requests for absentee ballots received by mail, fax, or email.

While there are more transmission options for updating information and requesting an absentee ballot, challenges still exist for UOCAVA voters. If the UOCAVA voter obtains forms from a website, s/he must return the completed form and have access to certain technology (scanner and Internet or fax machine) to submit the form quickly.

An online voter registration system provides the UOCAVA voter with a streamlined and single point registration process. The UOCAVA voter will need only access to the Internet, and, recognizing UOCAVA voters' time constraints, SBE will design the system to minimize the time needed to register to vote or to update an existing voter registration record and request an absentee ballot.

The risks associated with the current processes for registering to vote and requesting an absentee ballot and the inability to mitigate these risks adequately with the current processes are well known and documented. Implementing an online voter registration system offers a solution to many of the risks with the current processes but introduces different risks to the voter registration and absentee request process. The risks and the associated mitigation strategies to the online voter registration system are:

- 1. The online voter registration system does not function properly, and UOCAVA voters are unable to access the system. If the system is not working properly and cannot be restored in the short-term, SBE's website will direct voters to the voter registration application posted on SBE's website or Federal Post Card Application to complete and return by mail (required for initial voter registration), fax, or email.
- 2. Information stored by the online voter registration system does not accurately reflect the information entered by the user. The system will include a screen summarizing the information the user provided. The system will display a summary screen showing all data provided by the user before the application is finalized. The user will be able to edit data if needed and only finalize when the data is accurate. In its planned internal testing and using the proposed security consultants, SBE will vigorously test the system and verify that the data entered via the website matches the data transferred to the database.
- 3. The connection between the online voter registration system and the Motor Vehicle Administration's database does not work. The system will be designed to continue accepting applications without verifying driver's license or State identification numbers against the Motor Vehicle Administration's database and queue those applications submitted while the connection was not working. Once the connection is restored, the verification checks will be conducted offline. SBE will develop procedures to notify applicants that their driver's license or State identification numbers did not subsequently verify.
- 4. The security of the online voter registration system is jeopardized (e.g., the system has been breached). In its planned internal testing and using the proposed security

consultants, SBE will vigorously test the system and strengthen any weaknesses identified in the penetration and other security testing. This testing will be conducted periodically over the life of the system to ensure the handling of any new threats.

SBE expects that the simplification of the registration, update, and ballot request processes will increase participation and satisfaction of UOCAVA voters. OVF's proposed post-election survey will measure voters' satisfaction, and OVF's prior post-election surveys and analyses can provide data against which to compare the results of the proposed 2012 Maryland post-election survey. SBE's voter registration records will be analyzed to establish UOCAVA voter participation. SBE can currently establish the number of UOCAVA voters whose initial voter registration and requests to update voter registration records and absentee ballots were not timely received, and this data will be used to measure the success of the proposed online voter registration system (e.g., how many more applications from UOCAVA voters are timely).

# 2.4.2 Absentee Voting Process

When requesting an absentee ballot, a UOCAVA voter can request to receive the ballot by mail, fax, or email. As described in detail in Section 1.2.2.1 of this proposal, a UOCAVA voter who requests to receive an absentee ballot by email receives an email when his or her ballot is ready for download from the State's existing online absentee ballot delivery system.

The current delivery system provides the voter with static PDF documents to print. The voter votes the printed ballot manually and returns by mail the voted ballot, signed oath, and any other required documents. Once the local board of canvassers votes to accept and count the ballot, a bipartisan team of election officials duplicates the voter's selections from the ballot marked by the voter onto a ballot that can be scanned and read by the State's optical scan voting system. The duplication process is time-consuming for the local boards of elections and introduces some level of risk of inaccurate duplication, although this risk is mitigated by the bipartisan team requirement and existing business procedures.

Transmitting blank absentee ballots electronically provides the voter with more time to vote the ballot and increases the likelihood that the voted ballot is timely received. SBE has data identifying the number of untimely absentee ballots from UOCAVA voters from the 2006 through 2010 elections and will collect and compare the data from the 2012 elections; the comparison between the 2008 and 2012 elections will be most useful as it compares similar election cycles and calendars, although the 2010 General Election will be reviewed as it was the first election since the passage of the Military and Overseas Voter Empowerment Act.

The local boards of elections will be surveyed to estimate the time and cost (if available) from the 2010 General Election attributable to duplicating ballots. This will enable SBE to compare the time attributable to duplicating ballots in 2010 to 2012, when SBE proposes to use barcodes and ballot-on-demand printers during the canvass process. SBE expects that the duplication time will decrease by up to five minutes per ballot with the proposed enhancements, and the decrease will be significant in those jurisdictions with a large number of voters who requested an electronic absentee ballot. Less duplication time equates to reduced costs as some local boards of elections pay the members of the local board of canvassers and staff by the day.

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With the current online absentee ballot delivery system, the UOCAVA voter manually votes the ballot, and as a result, there are opportunities for voter error (e.g., voting for more than the maximum number of candidates), and voter intent can be difficult to decipher. The integration of the proposed online ballot marking wizard should reduce opportunities for error as it will prevent voters from "overvoting" and will provide voters with a summary screen to review before printing their ballots. SBE has data on error rates for the various methods of voting and will use this data as the baseline for measuring error rates on ballots completed using the proposed online ballot marking wizard against those completed manually. It is expected that the error rates on absentee ballots completed using the proposed online ballot marking wizard will be lower than those completed manually.

An online absentee ballot delivery system and SBE's proposed enhancements address many of the risks of the current process, but as with the online voter registration system, this approach introduces different risks that must be addressed. The risks and the associated mitigation strategies to the online absentee ballot delivery system are:

- The online absentee ballot delivery system does not function properly, and UOCAVA voters are unable to access the system. When the current ballot delivery system was implemented for the 2010 Primary Election, the system became unavailable for two days when the connection with the database was interrupted. Once the connection was re-established, the system performed as expected through the 2010 Primary and General Elections. Starting with the 2011 elections, the current system will automatically send the network administrators alerts if the database connection goes down. If the system cannot be restored in the short-term, state and local election officials will return to the previous way electronic absentee ballots were delivered via individual emails sent to voters until the system is restored.
- 2. The online absentee ballot delivery system is available and works, but the online ballot marking wizard does not. SBE intends to offer voters the option of using the online absentee ballot marking wizard to complete the ballot or downloading and printing the ballot and marking it manually. If the online ballot marking wizard is not available for use, SBE will direct voters to download the ballot and other documents and vote the ballot manually.
- 3. The ballot printed by the online ballot marking wizard or the QR barcode on the printed ballot does not reflect the voter's selections. SBE will integrate a summary screen into the online ballot marking wizard to provide voters with the opportunity to review their selections before printing their ballot. In its planned testing and through its proposed security testing, SBE will vigorously test the system and verify that both the printed ballot and the content of the QR barcode accurately reflect the voter's selections. Ideally, a voter reviewing his or her printed ballot would notify SBE of any inaccurate marking. Until the system is restored, SBE will direct voters to download the ballot and vote the ballot manually.

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- 4. The software used to read the QR barcode and generate a scannable ballot does not work. While the software will be thoroughly tested, in the event it does not work, the local boards of elections will utilize the 2010 strategy that is, they will create bipartisan teams to duplicate manually the ballots.
- 5. The software used to read the QR barcode and generate a scannable ballot prints selections that are not the voter's selections. Because SBE will continue to require the local boards of elections to have bipartisan teams comparing the ballot the voter returned against the ballot generated by the ballot-on-demand printer, the bipartisan team will identify any incorrect selections. If any selections are inaccurate, the bipartisan team would manually duplicate the ballot.
- 6. The security of the online absentee ballot delivery system is jeopardized (e.g., the system is breached). In its planned internal testing and using the proposed security consultants, SBE will vigorously test the system and strengthen any weaknesses identified in the penetration and other security testing. This testing will be conducted periodically over the life of the system to ensure the handling of any new threats.
- 2.5 Financial Management and Cost-Effectiveness

Financial management will be the responsibility of the project managers of the proposed projects. For the named vendors, SBE has negotiated fixed-price-by-deliverable bids for this project and will negotiate the same types of bids as the remaining vendors are selected. The pricing structure will enable SBE to manage to the proposed budget.

To the extent possible, funds will be tracked by project and aggregated for any reporting required by the FVAP. Financial reports (e.g., SF-425) will be prepared quarterly and submitted at an interval established by FVAP.

When considering the various implementation and maintenance strategies for systems that will benefit UOCAVA voters, it became clear that the most cost-effective solution was to develop and maintain internally an online voter registration system and an online absentee ballot delivery system. This decision means a reduction in the current budget for the online absentee ballot delivery system and a reduction in the implementation and maintenance costs of the online voter registration system. These cost-saving measures include:

- 1. Transitioning the online absentee ballot delivery system from a vendor-supported system to an internally supported and managed system. As described in Section 1 of this proposal, SBE expects to save funds by using existing, in-house resources and eliminating overhead expenses usually associated with using external vendors.
- 2. Using innovative barcode technology in the absentee voting process that will reduce the staff time for canvassing. This means less wages and salary cost for the local boards of elections, which previously manually duplicated ballots.

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- 3. Using in-house resources to develop, implement, and maintain the online voter registration system. This sustainable approach will require less funding than outsourcing to a third party vendor, even one selected through a competitive procurement process.
- 4. Reducing the need for local boards of elections to enter manually voter registration information submitted by UOCAVA voters into the statewide voter registration database.
- 5. Retaining ownership of the code base and data of both proposed systems, so SBE can maintain the systems at lower costs over their life cycles and make modifications quickly and cost-effectively.

# 2.6 Collaborative Activities

SBE regularly collaborates with Maryland's 24 local boards of elections. There are a variety of committees led by SBE and comprised of representatives of the local boards of elections that make recommendations and decisions on all aspects of election administration. It is rare that a decision is made by SBE that has not been vetted by local election officials.

SBE has previously collaborated with the Pew Charitable Trusts' Make Voting Work project to develop an election audit pilot program and is currently working with Pew and other states on its voter registration data exchange program (ERIC). SBE has not previously collaborated with federal agencies.

# 2.7 Current and Pending Project Proposal Submissions

In its 2011 Legislative Session, the Maryland General Assembly allocated \$250,000 of State funds for the development and implementation of an online voter registration system. These funds are currently budgeted for software modifications to the statewide voter registration system and web hosting expenses, and SBE has funds to pay the salaries and associated fringe benefits of SBE staff members who will develop and maintain the online voter registration system. SBE does not have any current or pending funding for the proposed security review or the research consultant. If SBE's proposal is funded, any unallocated State funds will be used in the following fiscal year for operations and maintenance of the online voter registration system.

Because SBE proposes to use in-house resources to develop and maintain the online absentee ballot delivery system, the salaries and associated fringe benefits of these employees are funded in both the current and next fiscal year. SBE does not, however, have current or pending funding for the QR barcode scanners, ballot-on-demand printers, associated supplies, the proposed security review, the technical consultant for the online absentee ballot delivery system to supplement in-house resources, or the research consultant.

Since the webhosting costs apply to both proposed systems as well as other SBE projects, SBE proposes to share the costs of webhosting services between State funds and grant funds. SBE has allocated 50% of the costs for web hosting and software development costs to State funds and 50% to FVAP grant funds. Software development costs were likewise shared between the two funding sources.

SBE has no current or pending proposals requesting funds for the proposed projects.

2.8 Qualifications of Key Personnel

Qualifications of key personnel are provided below. A complete curriculum vitae for Dr. Claire M. Smith, Research Director for OVF, is included in Appendix B.

**Ross Goldstein** is the Deputy Administrator for SBE. Ross has worked in elections for over 12 years in both policy and administrative capacities. He began his career in elections when he became staff attorney to the Florida House Committee on Ethics and Elections. Next, he served as a staff attorney for the Maryland General Assembly, where he was assigned to draft election laws and serve as counsel to the Task Force to Revise the Election Code. The task force led to a position with the Maryland State Board of Elections. As deputy administrator for the State Board, Ross works closely with local election officials to develop guidelines, policies, and procedures that ensure efficient administration of election laws. Ross is a graduate of the University of Florida and the Temple University College of Law.

Mary Cramer Wagner joined SBE in 2001 as the Deputy Director of Election Management. Her primary duties included assessing polling place accessibility for disabled voters, managing petitions, preparing ballots, and monitoring legislation. With the passage of the Help America Vote Act in 2003, Mary became the Director of Voter Registration and oversaw the successful implementation of a live, statewide voter registration database as required by the act. Since implementation in 2006, Mary has overseen the customization of the software application to meet federal and Maryland law. Under Mary's guidance, future projects for the Voter Registration Division include online voter registration, electronic interface with Maryland's Motor Vehicle Administration, and participation in an information data exchange program spearheaded by the Pew Charitable Trusts. Prior to joining SBE, Mary was the legislative aid to the Maryland General Assembly's Washington County Delegation.

**Nikki Baines Trella** is currently SBE's Election Reform Director and joined SBE in 2003. Nikki has been involved with implementing the requirements of the federal Help America Vote Act of 2002 and other election reform activities. As the Election Reform Director, she is involved in projects ranging from the implementation of a HAVA-compliant voting system and voter registration system to education of election officials and the public to the improvement of accessibility to the electoral process for individuals with disabilities. Prior to joining the SBE, Nikki worked in various positions in the Maryland Office of the Secretary of State. She served as legal staff to the Governor's Special Committee on Voting Systems and Election Procedures, assisted an interagency working group on the implementation of the National Voter Registration Act, provided staff assistance to the Committee to Revise the Election Code, and monitored federal and state election reforms efforts. She is a graduate of Loyola University Maryland and the University of Baltimore School of Law.

**Stacey M. Johnson** began working at SBE in August 2005. She has been the Deputy Project Manager and now Project Manager for the implementation of MDVOTERS, Maryland's statewide voter registration system, since inception. MDVOTERS fulfills federal and state

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statutory requirement to provide a single, centralized list of persons registered and eligible to vote in Maryland. She is involved in the continuous system development from conducting the design sessions to approving every functional specification to testing issues before they are moved to production use. She manages contracts for the development of software, daily production operations, server site upgrades, field support, and security testing. She is responsible for managing IT projects in accordance with the PMI Project Management Body of Knowledge and State standards for the system development life cycle. As MDVOTERS System Administrator, she is responsible for ensuring that all MDVOTERS voter registration business processes work correctly; for properly setting all MDVOTERS system parameters; and for maintaining system administrative functions, including application security functions. She provides leadership to voter registration supervisors in 24 local boards of elections statewide on the use of MDVOTERS functions, and detailed guidance to over 300 system users on MDVOTERS procedures. Prior to working at SBE, she was Chief Executive Officer of her own business. Johnson Systems, a computer and networking support organization; a developer and data conversion programmer for Blackbaud in Charleston, SC; and a systems engineer and support specialist for Data Business Systems in Virginia Beach, VA. Stacey earned her Project Management Professional certification in April 2009 and her B.S. in Electrical Engineering from University of Maryland, College Park in 1991.

**Cheré Evans**, currently SBE's Database Specialist, has nearly seven years' experience working as technical support for government agencies. She has been employed by SBE for nearly three years and has worked in Oracle Database, Crystal Reports, ASP.Net and Visual Basic.Net and provided support for the voter registration division. Her experience includes writing functional specifications, performing user acceptance testing, troubleshooting the voter registration system (MDVOTERS) code, and developing and maintaining the MDVOTERS data warehouse. She is currently developing the Online Voter Registration System, the Voter and Polling Place Lookup site, and the Online Ballot Delivery System. Prior to working for the State Board, Cheré worked in Visual Basic.Net, ASP.Net, Microsoft SQL Server, and Microsoft Access for the Supreme Court of Ohio in the Information Technology Department. Her experience included gathering functional requirements; performing data conversion; designing, developing, documenting, and maintaining systems for small offices in the Court; training users; and working on teams to develop the data access layer of new applications. Cheré has a B.A. in English and a B.S. in Computer Science and is currently working toward a M.S. in Information Systems.

**Natasha Walker**, currently SBE's Webmaster, started working at SBE in June 2003 as an Elections Management Assistant. In addition to managing the agency's website, Natasha works closely with the campaign finance division to test and troubleshoot its software and acts as a liaison to the Computer Sciences Corporation for changes to Election Management Software and web applications. Most important, she manages the ballot production process for the State of Maryland. Prior to joining the Maryland State Board of Elections, Natasha worked as an intern for many government organizations, including the United States Army Corps of Engineers in Baltimore, Maryland and the United States Embassy in Moscow, Russia. While in Russia, she interned for the Human Resources division and the following summer interned for the United States Agency for International Development (USAID).

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Initially joining Maryland's voting system team in 2003, **Paul Aumayr** has served as SBE's Voting System Project Manager since 2007. In this role, Paul has been responsible for most of the overall direction and implementation of voting system activities in the state, including testing, research, certification, and the implementation of voting systems process and procedures. A graduate of Computer Engineering from the University of Brighton (UK), Paul's diverse technological background has included positions in the oil and gas industry, healthcare, and mass transit, both in the United States and abroad.

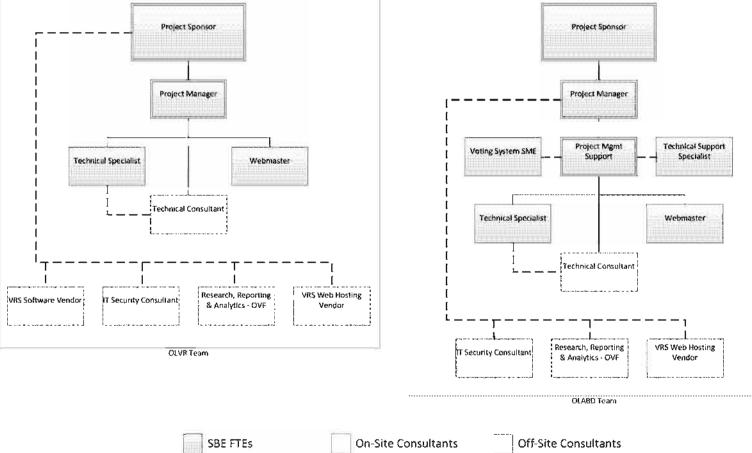
Andrew Johnson came to SBE in January 2011 with 13 years of technical experience. He currently supports the voting systems, the electronic pollbooks, and the election results consolidation processes using ASP.Net, VB.Net, C#, Javascript, Ruby, SQL Server, Oracle Database, SQLite, and Microsoft Access. Also, during elections, he monitors the early voting sites to ensure network connectivity continues. Prior to coming to SBE, Andrew worked for private industry both as systems support and lead programmer. His technical expertise includes support for Windows and Linux, as well as programming in SQL, C++, Delphi, Java, and more.

# **Appendix A: Proposed Organization Chart**



#### ONLINE VOTER REGISTRATION PROJECT





#### **ONLINE ABSENTEE BALLOT DELIVERY PROJECT**

# Appendix B: Curriculum Vitae for Dr. Claire M. Smith, Research Director for OVF

# DR. CLAIRE M. SMITH

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# RESEARCH AND ACADEMIC EXPERIENCE

Overseas Vote Foundation, September 2008 - Present

#### Research Program Director

- Oversaw analysis of 2008 and 2010 voter and local election official post-election surveys
- Conducted original research on the impact of state UOCAVA policies on voters. This paper created an UOCAVA State Policy Index in order to determine which states have been the most progressive in implementing federal standards. I then tested hypotheses about the effect of these laws on ballot return rates, ballot rejection rates, and voter satisfaction using EAC aggregate data and OVF survey data.
- Editor and contributor to monthly research newsletter, including articles on indentifying the correct number of UOCAVA voters and evaluating available data sets
- Organized academic panels for UOCAVA Summit 2010 and Summit 2011, including theme development and speaker recruitment
- Prepared materials for research and outreach grant proposals for the Carnegie Corporation, Pew Center on the States
- Prepared testimony for congressional hearings, as well as answering questions from congressional staff regarding the impact of policy
- · Answered questions from the "Voter Help Desk," communicating to voters around the world

# Carl von Ossietzky Universität, Oldenburg, Germany, 2005 - 2006 Adjunct Professor, Department of Political Science

 Classes Taught: Federalism in the U.S., Voting and Participation in the U.S., Parties and Organizations in Germany

#### University of Notre Dame, South Bend, IN, 2000 - 2002

### Teaching Assistant and Research Assistant

- TA for: Introduction to American Politics, Introduction to Comparative Politics
- Collected data for projects investigating the impact of women's suffrage (with Prof. Christina Wolbrecht), social capital and state policy outcomes (with Prof. Rodney Hero)

#### MANUSCRIPTS

"It's in the Mail: The Military and Overseas Voting Experience," (with Judith Murray), book manuscript in progress

"Barriers to Overseas Voting and Satisfaction with the Voting Process," (with Thad Hall) Journal article

EDUCATION University of Notre Dame, South Bend, IN PhD Political Science, May 2005

- First Field: Comparative Politics; Second Field: American Politics
- Subspecialties: political parties, party systems, federalism, electoral systems
- Dissertation: "Money to Burn: Party Finance and Party Organization in Federal Countries"

University of Notre Dame, South Bend, IN

MA Political Science, January 2002

 Master's Thesis: "Dimensions of Political Finance Legislation in the U.S. States: An Institutional Exploration"

Radford University, Radford, VA

BA Political Science and German (magna cum laude), May 1999

#### ADDITIONAL CERTIFICATIONS AND QUALIFICATIONS

ICPSR Training Program in Quantitative Methods of Social Research, University of Michigan Summer 2000

Cambridge Certificate in English Language Teaching to Adults (CELTA), Hamburg, Germany July 2006

#### ENGLISH TEACHING EXPERIENCE

Bildungswerk Cloppenburg, Cloppenburg, Germany, 2009 Consultant and English Teacher

• Created and implemented new certificate course in Business English, including syllabus design, literature selection and setting end of course standards

CNC Language Network, Cloppenburg, Germany, 2006–2008

Owner, English Teacher

- Sales responsibilities included identifying, visiting and making presentations to clients
- Negotiated prices and terms of payment with clients
- Conducted needs analysis for customers and designed courses to meet customer needs
- Organized teachers, work schedules, and other personnel issues
- Management duties included planning and implementing marketing strategy, accounting, and customer service relations

inlingua Sprachschule, Oldenburg and Cloppenburg, Germany, 2004 – 2005 English Teacher

#### CONFERENCE PAPERS

"When No One Can Knock on Your Door: Getting Out The Vote to Overseas Americans." Presented with Paul Herrnson and Michael Hanmer. Annual Meeting of the American Political Science Association, September 2011.

Online Voter Registration & Ballot Marking and Counting: An Adaptable and Open Source Solution

*"Time to MOVE: Overseas and Military Voter State Policy Innovation."* Midwest Political Science Association Conference, April 2011.

"Overseas Voter Satisfaction in 2010." Presented with Thad Hall. Midwest Political Science Association Conference, April 2011.

"Defending Votes: Legislative Policy and Military Voting." Midwest Political Science Association Conference, April 2010.

"It's in the Mail: Surveying UOCAVA Voters and Barriers to Voting." Annual Meeting of the American Political Science Association, September 2009.

"Ask and then Ask Again: Party Finance Laws and the Rise of Fundraising in Canada and the U.S." Midwest Political Science Association Conference, April 2005.

*"The Ties that Bind: Party Finance and Party Organization in Canada and the U.S."* Northeastern Political Science Association Conference, November 2004.

*"Money to Burn: Party Finance and Party Organization in Germany and Austria."* Midwestern Political Science Association Conference, April 2004.

"Dimensions of Political Finance Legislation in the U.S. States: An Institutional Exploration." Midwestern Political Science Association Conference, April 2002.

"Where's the Party? Federalism and Political Finance in the United States and Germany." Annual Meeting of the American Political Science Association, August 2001.

"Democracy's Dilemma: The Role of Political Culture in Democratic Consolidation." Presented with Karrie Koesel at the Midwestern Political Science Association Conference, April 2001.

"Adapting Consociationalism: Viable Democratic Structures in Burma." International Studies Association – Midwest Conference, October 2000.

#### AWARDS

Kaneb Center Outstanding Graduate Student Teacher Award, *University of Notre Dame*, April 2002 Outstanding Student of the Year, *Radford University*, 1999

### SCHOLARSHIPS AND FELLOWSHIPS

Kellogg Institute Dissertation Year Fellowship, University of Notre Dame, 2003-2004 Friedrich Ebert Stiftung Dissertation Support, Germany, 2002-2003 Nanovic Institute Dissertation Fellowship, University of Notre Dame, 2002 - 2003 Kellogg Institute Seed Money for Graduate Students, University of Notre Dame, Summer 2002 Downs Summer Training Travel Grant, University of Notre Dame, Summer 2000 Zeta Tau Alpha Foundation Achievement Scholarship, 1999

### PROFESSIONAL MEMBERSHIPS AND SERVICE

American Political Science Association (APSA) Midwest Political Science Association (MWPSA)

American Citizens Abroad (ACA), Country Contact for Americans in Germany

 Participated in Overseas Americans Week 2009, 2010 (OAW) in which representatives of three major overseas citizen advocacy organizations meet with legislators, staffers, and key government agencies

#### ADDITIONAL SKILLS

Foreign Languages German (fluent), French (some spoken)

REFERENCES AVAILABLE UPON REQUEST

# Volume 2 – Budget Proposal

# 1 Direct Labor

The proposed direct labor costs for this grant proposal are zero. Maryland State Board of Elections (SBE) employees will perform the necessary tasks as their normal course of work, so no additional funds will be required over their State-funded salaries. State salaries are funded via the State's budget process through fiscal year 2012 (July 2011 – June 2012), and it is expected that the positions will be funded in fiscal year 2013.

# 2 Administrative and Clerical Labor

The proposed administrative and clerical labor costs are zero. SBE employees providing administrative and clerical support will perform the necessary tasks as their normal course of work, and no additional funds will be required over their State-funded salaries. While administrative and clerical support for this proposal is expected to be nominal, the salaries of the employees who will provide this support are funded via the State's budget process through fiscal year 2012, and it is expected that the positions will be funded in fiscal year 2013.

# 3 Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.)

SBE did not include in this proposal any fringe benefits because SBE is not proposing any direct labor costs.

SBE does not currently have an indirect cost agreement with its cognizant government agency. SBE has asked the State's Department of Budget and Management (DBM) whether SBE will be required – under State policy – to establish an indirect cost agreement. At the time of submission, SBE has not received an answer from DBM.

# 4 Travel

SBE does not expect to incur any travel costs for this proposal. SBE will require any proposed consultants requiring travel to include travel costs in their proposed cost estimates.

# 5 Subcontracts/sub awards

SBE is not proposing subcontracts or sub awards in this proposal, and as a result, this budget line item is zero.

# 6 Consultants

Under State procurement law, SBE is generally prohibited from entering into a contractual agreement without first obtaining the necessary funding. As a result, SBE cannot provide at the time of this submission signed consulting agreements for the proposed consultants. If SBE's proposal is selected for award, SBE will submit to the Federal Voting Assistance Program (FVAP) signed consulting agreements with all consultants as the agreements are signed.

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SBE is proposing to hire consultants to address five specific aspects of this proposal. The five areas in which the consultants will work are: (1) technical development; (2) information technology (1T) security and audits; (3) website hosting; (4) software development; and (5) research and reporting.

Two **technical consultants** are proposed to assist with the technical development of the online voter registration system and the online absentee ballot delivery system. SBE estimates that these consultants will be required for approximately four months (660 hours) and will be billed at approximately \$135/hour. The hourly rate is based on estimates provided by SBE's software development consultant currently maintaining the State's statewide voter registration system. The estimated budget for these consultants is \$178,200.

SBE proposes to retain the services of an **IT security & audit** consultant or consulting firm that specializes in IT testing and auditing for web-based environments and can perform code review and security penetration for the proposed systems. These services will be needed throughout the development, testing, and implementation of the proposed systems – approximately 14 months. Based on estimates from several firms and SBE's prior contracts for similar services, SBE has budgeted \$35,000 for these services.

Both proposed projects require the services of a **web hosting consultant** to provide web hosting services for each site. The proposed budget for these services includes hosting starting January 2012 (when the proposed hardware and software are installed) for 14 months. Because SBE's estimates for web hosting include other, unrelated SBE projects, SBE proposes to allocate 50% of the total monthly cost of web hosting to the proposed projects. The prorated amount is \$4,500 per month for web hosting – a total of \$63,000 over 14 months.

The online voter registration system will require a **software development consultant**. The proposed consultant, The Canton Group, currently maintains the State's statewide voter registration system. The Canton Group will make changes to the statewide voter registration system to enable it to accept data from the online voter registration system. As noted in the Current and Pending Project Proposal Submissions, Section 2.7 of the *Volume 1 - Technical Proposal*, SBE is proposing to share the cost between State funds and federal grant funds. SBE has budgeted \$108,000, which represents a portion of the cost for those tasks directly related to the proposed online voter registration system. State funds will cover the remainder of the software development costs for the proposed online voter registration system. See Appendix A, the proposal for accepting voter registration information, and Appendix B, the proposal for accepting absentee ballot requests.

SBE proposes the services of the Overseas Vote Foundation (OVF) as the **research and reporting consultant**. Based on a proposal provided by OVF, the proposed cost of these services is \$23,000.

See Appendix C for a spreadsheet of the proposed costs for the consultants.

# 7 Materials and Supplies<sup>1</sup>

Because the proposed enhancement to the online absentee ballot delivery system is printing intensive, the majority of the proposed supply costs relate to printing. Black and color ink cartridge replacements as well as ballot printer drumhead replacements are included. For the proposed ballot-on-demand printers, SBE estimates 25 black and 12 color ink cartridges will be required for the 2012 elections.<sup>2</sup> According to the manufacturer's website, black ink cartridges are \$155, and color ink cartridges are \$464, for a total cost of \$9,443. The drumhead replacements are \$160 each for the black ink drumheads and \$219 each for the color ink drumheads. The expected life span of the drumheads is one drumhead for every two ink cartridges. As a result, SBE estimates that 13 black ink drumheads (\$2,080) and 6 color ink drumheads (\$1,314) are required for the 2012 elections.

Ballot paper is also needed for the ballot-on-demand printers. Based on the number of electronically delivered absentee ballots in prior elections and the expected increase for the 2012 elections, SBE estimates that 50,000 electronically delivered ballots will be printed using the proposed printer, the vast majority of which will be printed on one sheet of 8½" by 18," 90 pound paper. Based on a quote from a paper company in Maryland, the estimated cost of this custom-cut paper is \$60.55 for 1,000 sheets or \$0.06055 per sheet, for a total cost of \$3,028.

See Appendix D for a spreadsheet of the proposed costs for materials and supplies.

# 8 Other Direct Costs

SBE proposes to purchase several servers that will support different aspects of each project; this is a one time purchase. The proposed servers are:

- 1. 3 web servers (Dell R610) at \$9,100 each, for a total cost of \$27,300
- 2. 1 Vcenter server (Dell R410) for \$10,804
- 3. I website load balancing server (Web LB) for \$15,000
- 4. I web server network storage (SAN VMW) for \$18,000

SBE proposes to purchase 30 ballot-on-demand printers and 30 QR barcode scanners. Maryland has 24 jurisdictions, and the proposed quantity allows SBE to allocate at least one printer and barcode scanner to each jurisdiction. The remaining quantities will be allocated to those jurisdictions with the highest number of UOCAVA voters receiving electronic absentee ballots.

<sup>&</sup>lt;sup>1</sup> SBE will follow State procurement rules when purchasing the proposed materials, supplies, hardware and software. As a result, it is possible that the actual cost of the supplies may vary from the estimates provided.

<sup>&</sup>lt;sup>2</sup> Although the proposed enhancement to the online absentee ballot delivery systems will not be live for the primary election, SBE plans to conduct election-scale testing during the primary election. As a result, supplies required for the testing are included in the proposal.

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SBE recently bought a ballot-on-demand printer for \$3,700 and has budgeted \$111,000 for 30 printers. The manufacturer offers a 2-year warranty for \$885, and SBE proposes \$26,550 for warranties. SBE estimates – based on an online search - \$200 for each QR barcode scanner, for a total of \$6,000.

Additionally, software will be required for the servers to allow the website to scale easily. This software has been identified as Software for Vcenter Server (VMware), and the estimated cost to purchase is \$16,000. The cost estimates for the servers, network storage, and software were provided by SBE's current web hosting consultant.

See Appendix E for a spreadsheet of the proposed, remaining direct costs.

### 9 Return on Investment (ROI) Analysis

The proposed online voter registration system and the proposed enhancements to the online absentee ballot delivery system systems offer a favorable and diversified return on investment. The factors used to assess the return for these projects were the cost savings associated with the:

- 1. In-house development and maintenance of the systems
- 2. Designing and implementing two scalable, sustainable, and portable solutions
- 3. Increased rates of UOCAVA voter participation in and satisfaction with various stages of the voting process
- 4. Automating many aspects of the UOCAVA voting and counting process

Both the online voter registration system and the online absentee ballot delivery system will require one-time hardware costs and software development costs to facilitate the initial implementation. After those cost outlays, however, the only ongoing costs will be in-house management and maintenance of the systems, monthly web hosting costs, hardware maintenance, supplies, and end-of-life and any unforeseen replacement costs.

Both proposed systems offer tangible and intangible benefits that result in a favorable return on investment. The expected tangible, measureable returns will be the cost savings associated with using in-house State resources to develop and maintain both systems, instead of relying on a third party vendor and paying for its overhead and other associated costs. SBE anticipates that after the initial investment in hardware costs and software development, the costs of maintaining **both** systems will be similar to the current cost of maintaining **only** the online absentee ballot delivery system.

Another expected tangible and measurable benefit of the online absentee ballot delivery system will be the savings realized by the local boards of elections by automating the ballot duplication process. This transition will reduce the local boards of elections' time and costs associated with counting (i.e., payments to canvassing board members and staff). This savings

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will come directly off of the bottom line and for some jurisdictions, will be immediate, significant, and recurring each election.

In addition to the tangible returns described above, both projects offer non-financial, intangible benefits that are critical to improving the voting process for UOCAVA voters and the election administration process. While these benefits are not always quantifiable, they have a positive impact on the election process.

One intangible return on this investment results from SBE's decision to develop two scalable, sustainable systems that address three significant components of the voting process – registering to vote, requesting a ballot, and voting the ballot. With its proposed generic, system-neutral design, these two systems are portable solutions and can have significant but minimal cost impact on the voting process in other jurisdictions.

With an online voter registration system, SBE expects that satisfaction with the registration and ballot request process will improve and will translate into more UOCAVA voters completing the process and returning a timely absentee ballot. SBE anticipates that a simple, online process to register to vote will result in an increase in registration because the process removes the existing obstacles related to completing and submitting paper forms. SBE expects the number of timely changes to voter registration records and absentee ballot requests will likewise increase, since the associated information is transmitted electronically and immediately.

Lastly, SBE expects that the quality of voter registration data will improve, as local election officials will no longer be deciphering handwritten forms and manually entering voter registration data into the statewide voter registration system. Improved data quality increases the likelihood that registrations are completed without follow-up with the voter, and ballots and other election notices are directed to the voter at the correct address.

Similarly, there are several intangible benefits to the proposed enhancements to the online absentee ballot delivery system. The online ballot marking wizard enhancement will simplify the voting process for UOCAVA voters, decrease the error rate, and result in more ballots being counted – a goal of election officials everywhere. SBE expects that a simple voting process will increase the number of absentee ballots returned and counted by UOCAVA voters. Developing an automated ballot duplication process will improve the accuracy of the counting process by reducing the risk of transcription error when manually duplicating ballots.

In summary, SBE expects both systems to provide an immediate return on investment both from a financial and a qualitative perspective and will track the rates of return and improvement throughout the process with the measures of ROI outlined above.

Maryland State Board of Elections Online Voter Registration & Ballot Marking and Counting: An Adaptable and Open Source Solution

Appendix A: The Canton Group - Online Voter Registration Proposal

# DRAFT MDVOTERS ON-LINE VOTER REGISTRATION

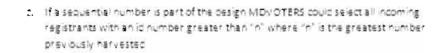
The Maryland State Legislature is consistering implementation of an On-Line Voter Registration (OLVR) System so the electors can go on-line to web site to register to vote. If properly qualified by reasons of Ortizenship, Residency, Age, Felon Status, and Identification Requirements, the electors can fill out a registration form instead of a paper based voter registration application. The OLVR registrant data will transfer to the MDVOTERS production environment, and wait in a queue of temporary voter records until the digital signature image of the voter is appended to the record at which time the registrant's voter data will be transferred to the voter table for election purposes. OLVR registrants will be able to register to vote or make changes to their voter registration via this Web Interface. This cost estimate includes the cost for developing the MDVOTERS interface but does not include the costs of the Web Interface or hosting services Projected Cost of MDVOTERS Implementation

# MDVOTERS OLVR System For On-Line Voter Registration

Projected Cost of MDNOTERS Implementation

Contents	
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8a3xs	2
Suggestiona	2
Transfer the On-Line Voter Registration Data to MDVOTERS	3
A web service is preferred but an export file is another good option	3
full and incremental Transactional Data Transfers.	3
Import the OLVR System Registrant Data into MDV OTER5	E
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Collect the signature image data	. 5
Process the Registrant Data	5
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Create the Web Interface Basics 1. Precualify registrants with otizenship, residency, and age questions a. If MVA digital signatures are required then require the MVA identification number 2. Only upon prequalification then collect registrant data a, name. b. gender. pirth date. d. identification number, e. residence address, f. mailing address, g. party, in contact information, . ancillary survey questions, j. signature, <. data, . prior registration information Suggestions 2. MVA License Required to get the signature from MVA a. How else will we collect the digital signature? 2. Make the web form look similar to the VRA a. If an electronic signature is not available then the ink signature will have to be affixed to the paper form. 3. CASS Web Service Integration In-Lieu-Of sending the MDVOTERS Street Segments up to OLVR a. Instead of sending the MDVOTERS Address Library to the Or-Line Voter Registration System and writing code around address library data, consider using CASS Web Services which require no software or data nosted by the state b. Standardized address information is returned to the web site County name is part of the data returned. 4. Create Unique id number and Timestamp a. Sequentially numbered transactions will give us control b. Timestamp may be useful to resolve disputes (or may become the cause of disputes) 5. Confirmation of Registration a. A confirmation page that can be printed might be useful 6. Print the Registration information a. But only if the MVA signature is unavailable Hold the data in the database allowing MDVOTERS to extract the data as a web service. This method would require no exports or imports b. The WSDL would incorporate all of the information narvested by the website



#### Transfer the On-Line Voter Registration Data to MDVOTERS

A tweb service is preferred but an export file is another good option If the On-Line voter Registration (OLVR) system included a web service for collecting the registrant data then the file transfers could be easily automated. A Web Service would eliminate the need for an export file. Web Services Security (WSS) can include any number of security features making this a flexible and secure method to transfer the data. A Web Services Design Language document (WSDL) would provide the information nesded for programming the Service requirements.

If a Web Service is not an option then an export file from the OLVR system is acceptable. The transfer file could be XML based for greatest flexibility or delimited for a more traditional approach. Either approach will require as many XML tags or delimited columns as is needed for the data harvested from the registrant. If the delimited transfer file option is selected then the file should contain a header row.

The export file will have as many rows as is needed for the number of registrants who submitted their OLVR application.

The signature image of the voter must come from the Maryland Motor Vehicle Administration (MVA) or from a paper voter registration application.

#### Full and Incremental Transactional Data Transfers

Regardless of the transfer method above (W5, XML, delimited file), the web data export should feature a transactional update dump. In other words, we only want the most recent registrant records to appear in the file, and we don't want a full database dump each time there is a transfer.

The transactional update dump could require a baseline id number, and then export only those transactions where the id number is of greater than "n" (where n is the previous highest number exported).

Import the OLVR System Registrant Data into MDVOTERS Importing the registrant data should be an on-demand event, or a schedulable event using the current menu and scheduler for MDVOTERS. In either case (on demand vs. scheduled) the system should process the incoming data, post the number of records processed, perform some basic validation, categorize the incoming records, preserve the raw data, and store the incoming records in a new table. The new table of data can be processed into production later downstream after the signature image data is collected and certain reports are run. Import the data into a new table in MDVOTERS 1. Categorize the incoming data into 8 broad categories When records come from the OLVR system the software should make basic decisions about the incoming records and begin to categorize the records. Code 1 - Out of county move Code 2 - In CoUnty Move Code 5 - Mailing Address Change Code 4 - Party Change Code 5 - Name Change Code 6 - Incoming (new registration) Code 7 - Exact Match Code 8 - No address library match a. Registrant record matching One of the first decisions about each record is whether or not the record is new. In other words, the software should decide if the name of the registrant siready appears. within MDVOTERS. Non-matching registrant data is considered to be a new registration. Matching registrant data is considered to be a reregistration. The most positive match is based on the driver's license number. Softer matches are based on the voter's name, date of birth, and the SSN 4 pigit number. Very soft matches should not be made leaving these soft matches to the user to decide. By exact driver's license number match i. Name, DOB, 55N 4 1. Probability ratings can be applied to anything less than a hand match 2. Soft matches can be categorized as Not Sure or can be probability rated matches Reregistration - Change codes 1 through 5 Residence Address change -This type of record will contain an apparent residence address change. The change of address might be so significant that the voter's county of record is changed, or it might be within the same county, and it could be as simple as an apartment number change. Every change of address will be categorized as precinctable or not. 1. Precinctable address Out of County - Code 1 b. Within County - Code L ii. Malling Address change - Code 3 Certain OLVR records will merely be for mailing purposes. These records will be obvious because the name, residence, and other details will match exactly except for the mailing address. in. Party change - Code 4 iv. Name change - Code 5

c. New registration – code 6 New registrants are always missing the voter's signature and the system will need to hold these registrations in a pending status until the signature image arrives. In addition to the voter's signature image, some records will contain a precinct assignment based on the residence address while other records cannot be assigned a precinct.

- 1. Precinct the address
- 2. No address match

No change – Code 7
 It is likely that some voters will register to vote on-line for no apparent reason. These
 duplicate registrations should be tracked but no action should take place against the
 voter table.

- e. No precinct can be assigned –Code 8 Some voter records might come from the OLVR system that cannot be matched to the street address library in MDV OTERS. These records will require manual inspection and actions to make the address acceptable.
- f. Post the number of records processed
  - On demand will post the total number of records processed directly to the screen. The total number of records will be further broken down into counts by code number.
  - If the scheduler is used then the counts will be reviewable in the batch job associated with each scheduled event.
- 2. Preserve the raw data to resolve issues downstream
  - a. Store the raw data for each OLVR registrant in a single column in the table to give users the ability to view the raw data in the event there are some discrepancies.

#### Collect the signature image data

There is no other known source for the signature image, and the digital image of the voter's signature must come from the Maryland Motor Vehicle Administration. We plan to hold the voter's OLVR data until the signature is transferred.

5 gnature images can be transferred as a web service (preferred) or by an export from the MVA. If we included a web service for collecting the signature image data then the file transfers could be easily automated. A Web Service would eliminate the need for an export file. Web Services Security (WSS) can include any number of security features making this a flexible and secure method to transfer the data. A Web Services Design Language document (WSDL) would provide the information needed for the transfer of the image and the related service requirements.

If a Web Service is not an option then an export file from the MVA is acceptable. The transfer file could be a TIFF file with the MVA identification number as the name of the file. We could get periodic dumps of MVA signature images and marry these with the OLVR records at the time of the export.

We need to develop a way to handle widowed OLVR records without a signature image. We could make a request that the MVA provide the signature via the Web Service or export. However, prior to g OLVR record moving into the voter table the signature image of the voter must come from the Maryland Motor vehicle Administration (MVA) or from a paper voter registration application.

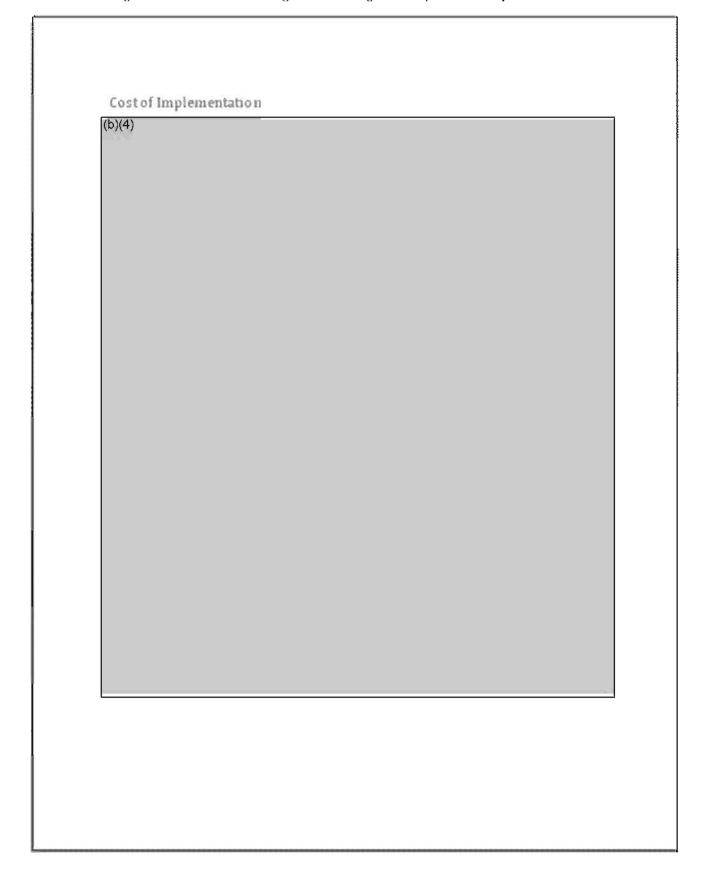
#### Process the Registrant Data

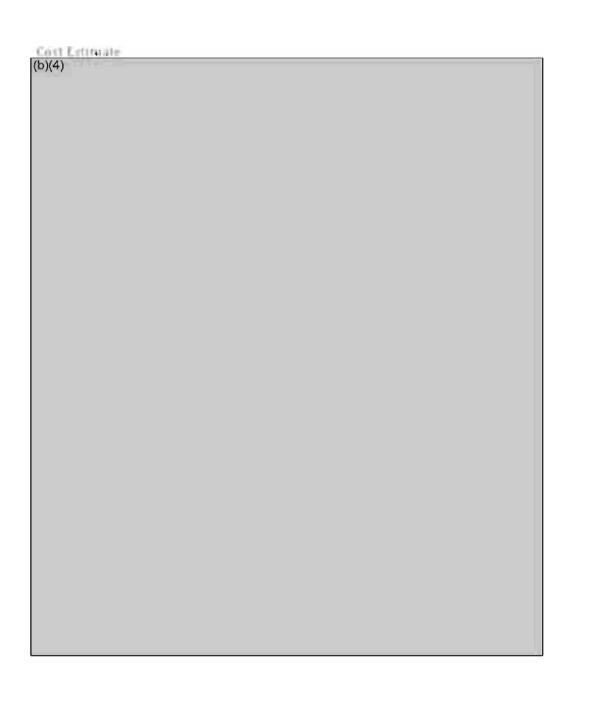
Periodically the OLVR data will move from the temporary voter table into the production voter table but only when:

- 1. A signature image has been married to the OLVR registrant data; and,
- 2. Only when the Categories are 1 through 6.
- 3. Code 7 is an exact match and currently there is no plan to update the voter's record.
- Code B requires manual inspection and correction to make the GLVR record change to one of the six action categories.

#### Reports

- 1. Statistics
- 2. Detailed Reports by category
- 5. Aging report
- 4. A Missing Signature Report





Maryland State Board of Elections Online Voter Registration & Ballot Marking and Counting: An Adaptable and Open Source Solution

Appendix B: The Canton Group - Online Absentee Ballot Request Proposal

# DRAFT MDVOTERS ON-LINE ABSENT VOTER BALLOT APPLICATION

Projected Cost of MDVOTERS Implementation

The Maryland State Board of Elections (SEE) is considering applying for a grant from the Federal Voting Assistance Program to improve services to UOCAVA Voters. The UDCAVA Voters could go online to a website to apply for a ballot. (Eventually, all voters and not just the UDCAVA voters might make use of this site.) If properly qualified, the voters could fill out an application form online instead of a paper-based application. The AV application data will transfer to the MDVOTERS production environment, and either land in the election file of AV voters or in the data range table of mailing addresses for future absent voter ballots. Currently, there is no plan for further 2-way communication between the online application system and MDVOTERS such as the current status of the ballot or the receipt and disposition of the ballot. This cost estimate includes the cost for developing the MDVOTERS interface but does not include the costs of the Web interface or hosting services.

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### MDVOTERS OLAVAPP System For On-Line Absentee Voter Applications

Projected Cost of MDVGTERC Implementation

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Import the data into a new table in MDV OTER5.	
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ost of implementation	
Assumptions	
Cost Estimate	



2



전에 위해적 승규, 관리 지금화가 문화 밖에 밖에

a. Registrant record matching

The match is based on the voter id number and the first decision about each record is whether or not the voter record is on file and eligible for an election. In other words, the software should decide if the voter id is for a voter that is still qualified to apply for an AV Bailot and/or date range bailot. Qualifications include date registered, status of the voter record, precinct, and eligibility based on any requests already on file. Nonmatching application data must be stored and reported to the election official for further investigation.

- Post the number of records processed
  - On demand will post the total number of records processed directly to the screen. The total number of records will be further broken down into counts by code number.
  - If the scheduler is used then the counts will be reviewable in the batch job associated with each scheduled event.
- Preserve the rew data to resolve issues downstream
  - a. Store the raw data for each OLAVAPP registrant in a single column in the table to give users the ability to view the raw data in the event there are some discrepancies.

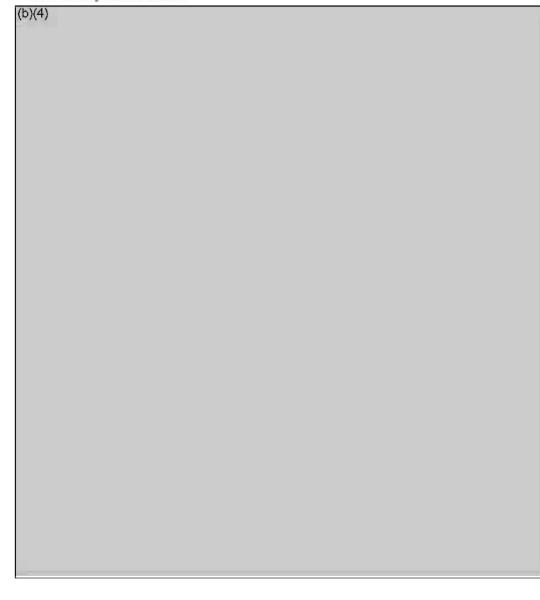
#### Reports

- 1. Statistics
- Missing Data Report or Error Report

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#### MDVOTERS OLAVAPP System Cost Estimate

**Cost of Implementation** 





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#### Maryland State Board of Elections Online Voter Registration Ballot Marking and Counting: An Adaptable and Open Source Solution

#### Appendix C: Proposed Budget for Consultants

Consultants	Es	t. Rate	Est. Hrs/Mth	Estimated Cost	Total Costs
Describe Services Required					
Voter Registration System Software Vendor (The Canton Grou	\$	]	I	\$108,000	\$108,000
Online Voter Registration System	\$	1	I	\$50,000	\$50,000
Online Absentee Ballot Request	\$	1	I	\$58,000	\$58,000
Server Hosting (TBD)	\$	4,500	14	\$63,000	\$63,000
Research, Reporting & Analytics (Overseas Vote Foundation)	\$	]	I	\$23,000	\$23,000
IT Security Consultants (TBD)	\$	1	I	\$35,000	\$35,000
Technical Consultant (TBD)	\$	135	660	\$89,100	\$89,100
Technical Consultant (TBD)	\$	135	660	\$89,100	\$89,100
Total Consultants Costs	l				\$407,200

### Maryland State Board of Elections Online Voter Registration Ballot Marking and Counting: An Adaptable and Open Source Solution

Appendix D: Proposed Budget for Materials and Supplies

Materials & Supplies (Office supplies, copying, postage, etc.)	# of Units	Units/Est Cost	Est. Cost/Unit	Total Costs
Itemize				
Black Ink Cartridges	25	155	\$155	\$3,875
Color Ink Cartridges	12	464	\$464	\$5,568
Ballot Paper (90# 8.5 x 18 inch paper)	50,000	60.55	\$60.55	\$3,028
Ballot Printer Drumhead Replacement - Black	13	160	\$160	\$2,080
Ballot Printer Drumhead Replacement - Color	6	219	\$219	\$1,314
Total Materials & Supplies Costs				
2000 march and the Supplies Costs				\$15,865

#### Maryland State Board of Elections

Online Voter Registration Ballot Marking and Counting: An Adaptable and Open Source Solution

#### Appendix E: Proposed Budget for Other Direct Costs

Other Direct Costs	# of Units	Est. Cost/Unit	Total Costs
Hardware, Licensing & Warranties	I		
Web Server (Dell R610) (includes basic warranty)	3	\$9,100	\$27,300
Vcenter Server (Dell R410) (includes basic warranty)	1	\$10,804	\$10,804
Website Load Balancing Server (Web LB) (includes basic warranty)	1	\$15,000	\$15,000
Web Server Network Storage (SAN VMW) (includes basic warranty)	1	\$18,000	\$18,000
Ballot Printer Hardware (TBD)	30	\$3,700	\$111,000
2 year Warranty - Ballot-on-Demand Printer Hardware (TBD)	30	\$885	\$26,550
QR Barcode Scanner	30	\$200	\$6,000
Warranty & Service Contract- QR Barcode Scanner		\$0	\$0
Subtotal Hardware, Licensing & Warranties			\$214,654
Software			
Software for Vcenter Server (VMWare)	1	\$16,000	\$16,000
Subtotal Software			\$16,000
Total Other Direct Costs			\$230,654

Technical Proposal: State of Michigan, Department of State Proposal to Enhance UOCAVA Ballot Distribution Process

Catalog of Federal Domestic Assistance Number: 12.217

#### BAA number: HQ0034-FVAP-11-BAA-0001

Title of Proposal: Enhanced Delivery and Tracking of Absentee Ballots for Military and Overseas Voters

CAGE Code and DUNs Number:

Applicant: State of Michigan, Department of State

Technical Contact:	Timothy M. Hanson Bureau of Elections Richard H. Austin Building 430 West Allegan Street Lansing, MI 48901-0726
	Phone: 517-373-2540 Email: <u>hansont@michigan.gov</u>
Administrative/Business Contact:	Timothy M. Hanson Bureau of Elections Richard H. Austin Building 430 West Allegan Street Lansing, MI 48901-0726
	Phone: 517-373-2540 Email: <u>hansont@michigan.gov</u>
Proposed Period of Performance:	Date of Grant Award through November 2014

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### TECHNICAL APPROACH AND JUSTIFICATION

#### Executive Summary

The Michigan Department of State's proposal is designed to increase the participation of military and overseas voters in the electoral process. This will be accomplished by providing an enhanced electronic ballot that will be easier to create for Michigan election officials and easier to vote for military and overseas voters. The proposed software enhancements and technical improvements will facilitate and speed up the issuance and tracking of absentee ballots for voters covered by the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) in *All Michigan Cities and Townships*. The enhancements will place particular emphasis, however, on improving the processing of UOCAVA absentee ballots in Michigan's smallest cities and townships.

The proposal calls for software development that will permit all election officials in Michigan to electronically create, process and track ballots for absentee voters (including military and overseas absentee voters). In Michigan's highly decentralized election management system, over 700 of the smallest cities and townships (non-QVF communities) do not have electronic access to the state's voter registration system (the Qualified Voter File or "QVF"). These jurisdictions must rely on their county clerks to track absentee ballots. This is a burden on both the local clerks and the county clerks. The proposal calls for a webbased application that will permit Michigan's smallest jurisdictions to enter tracking data into the QVF for all absentee voters. Once the proposal is implemented, software will compile all absentee voter information required by FVAP and the Election Assistance Commission's (EAC) biennial survey which will provide the EAC with more timely and more accurate data. The proposal also calls for enhancements to the software that creates electronic ballots required by the Military and Overseas Voter Enhancement Act (MOVE). The enhancements will permit all city and township clerks in Michigan to create MOVE ballots more quickly and easily and will provide the voter with a better voting experience. Finally, the proposal will provide for an integrated plan to communicate more effectively with military and overseas voters with the goal of increasing their participation in the electoral process.

#### Goals and Objectives

The State of Michigan proposes four separate, but related projects to implement the objectives identified in the Executive Summary above:

1. Objective: Improve the electronic ballot developed for voters covered by the Military and Overseas Voter Empowerment Act (MOVE). Michigan has already implemented software that permits local election officials to create an electronic ballot for any overseas or military voter who requests one. The existing process involves a number of steps that election officials find cumbersome to follow. The user must also have the software needed to create a pdf. While a number of vendors offer pdf creation software as a free download, the process is unnecessarily cumbersome and time consuming. The ballot creation process must become a onestep process. The selection of the voter from the QVF system should automatically create a pdf ballot or link to a pre-created pdf ballot. Under the existing process, local officials create the votable pdf ballot (the ballot includes ovals similar to those seen on an optical scan ballot) and emails it to overseas and military voters upon request along with voting instructions and information on returning the ballot to the proper election official. The voter must print the ballot and then vote the ballot by filling in ovals. The enhanced ballot will be designed in a manner that permits the voter to fill in ovals on the ballot (make voting selections) electronically. These enhancements will make this program easier for Michigan election officials and easier for the UOCAVA voters.

## How the proposal will establish and operate successful, sustainable and affordable electronic tools that will improve voting systems for voters covered by UOCAVA.

A vast majority of the cost associated with improving the creation of the electronic ballot mandated by the MOVE Act is programming. Ongoing costs will be minimal. The data needed to create MOVE ballots already exists. No additional administrative costs will be added by the software improvements. The enhancements will positively affect every jurisdiction in Michigan. This proposal will implement software changes that will make the electronic ballot creation process much more seamless and much faster and will eliminate the need for local election officials to have special software available to create a pdf. MOVE ballot creation will become a simple 3-step process for the election official:

- 1. Search and select the voter,
- 2. Click to create an electronic ballot,
- 3. Send the ballot by email to the voter.

The failure rate in the creation of the electronic MOVE ballot should be reduced to near zero in every jurisdiction in Michigan. The streamlined process of creating the ballot will make it significantly less likely that a local election official will fail to send an electronic ballot to a UOCAVA voter. UOCAVA voters will now mark their ballots on-line which will eliminate stray marks and any confusion associated with which oval the voter meant to mark.

II. Objective: Make the Absentee Voter (AV) ballot tracker useable by non-QVF communities. Michigan permits voters (military/overseas and others) to track the AV process on-line. However, there are 710 non-QVF cities and townships in Michigan that do not have electronic access to the QVF system. Currently, the only way for non-QVF communities to get their AV application and ballot information into the ballot tracking system is have the county clerk enter the data. The county clerk must enter AV Applications Received, AV Ballots Sent and AV Ballots Received for AV Voters. (As an alternative, non-QVF clerks may travel to the county clerk's office to do the data entry themselves, but this is rarely practical.) While county clerks have shown a willingness to enter military/overseas voter ballots, they are less amenable to entering other types of AV ballot into the OVF for all their small jurisdictions' AV voters. The non-QVF clerks responsible for issuing absentee ballots have little control over the tracking process. The result is inconsistent tracking of both military/overseas and standard AV ballots. The process is a particular burden for county clerks in a major election year. As with most levels of government, county clerk offices are facing significant budget cuts.

The State of Michigan proposes to create a web based application that will allow non-QVF users to enter all absent voter ballot information without going through the county clerk or the QVF software. The QVF's AV module is complex. It assigns ballot numbers, tracks dates and issues a variety of reports. The web application will include all features of the QVF Absentee Voter Module which provides customized AV applications and labels in addition to assigning ballot numbers and various dates. The AV module has numerous checks to prevent data entry errors. These system checks will be carried over to the web version. The proposal will require some redesign of the current AV module.

## How the proposal will establish and operate successful, sustainable and affordable electronic tools that will improve voting systems for voters covered by UOCAVA.

Most costs associated with implementing the web-bases AV tracking system are up-front programming costs. Any increase in ongoing costs to track AV ballots will be minimal. No additional administrative costs will be added by the software development. The software development will positively affect the 700+ cities and townships that do not have direct access to the QVF system and will reduce the workload of the county clerks that currently track AV ballots for the small jurisdictions within their counties. The software development will also speed up the processing of all AV ballots-electronic and paper-requested by UOCAVA voters. UOCAVA voters will receive their ballots more quickly which will greatly reduce the likelihood that their ballots will not be received in time to be counted.

III. Objective: Streamline EAC's Election Administration and Voting Survey data collection process and FVAP data requests to ensure that every jurisdiction properly categorizes military/overseas ballots. There are a number of nuanced selections that must be tracked at the time an Absentee Ballot is issued in order to easily capture data required for Federal reporting purposes. Regardless of the efforts made before each election to ensure that the local election officials track of this data properly, they simply don't. By the time a survey is sent to users following each Federal election cycle, detailed and accurate military/overseas ballot data is no longer available in many jurisdictions. The proposal includes programming all necessary selections types into the software created by the enhanced ballot tracker described above so that the data required by the EAC Survey is captured at the point the ballot is issued and will then be readily available for the report without contacting each local jurisdiction. New data elements will identify 1) Absentee Ballots issued to uniformed services voters; 2) Absentee ballots issued to the spouse or dependents of uniformed services voters or to overseas civilian voters. The software enhancements will also allow the electronic calculation of 1) the number of absentee ballots sent to uniformed services voters, the spouses and dependents of uniformed services voters and overseas civilian voters that were returned by the voter by the close of the polls on election night; 2) the number of absentee ballots sent to uniformed services voters, the spouses and dependents of uniformed services voters and overseas civilian voters that were returned by the voter after the election; 3) the number of absentee ballots sent to uniformed services voters, the spouses and dependents of uniformed services voters and overseas civilian voters that were never returned. This will ensure accurate and timely information regarding all EAC survey questions for 100% of Michigan jurisdictions.

# How the proposal will establish and operate successful, sustainable and affordable electronic tools that will improve voting systems for voters covered by UOCAVA.

All costs associated with streamlining the EAC Survey data collection process will be up front programming costs. Ongoing costs will decrease considerably. Once the military/overseas ballot information is collected at the point of issuance, there will be no more need for local election officials to maintain the information independently and no need for the Department of State to use valuable staff time to survey over 1500 election officials in Michigan following each Federal Election. EAC report data will be produced electronically which will speed up the reporting process. No local data record will be lost. The result will be a far more accurate report to the EAC in a far more timely fashion.

- IV. Objective: Improve and enhance communication with Michigan's military and overseas voters. Once implemented, the proposal will increase awareness of Michigan's voter registration and absentee ballot options that are available to military and overseas voters, and thus increase voter participation. The Department of State will develop an ongoing targeted, multi-faceted approach to identify and communicate with these Michigan citizens. Elements of the program include:
  - Working with all branches of the military and foreign U.S. embassies to identify and inform Michigan citizens in the military and/or living overseas of voter registration requirements and methods for them to cast ballots in Michigan. This effort will include use of these organizations' available communication networks, data, and any existing methods they have available for communicating with Michigan citizens that are overseas.
  - Working with Michigan local clerks to enhance and increase their efforts to identify, collect and maintain data (email addresses, mailing addresses) on Michigan registered voters who are in the military and/or are living overseas.
  - Developing a targeted Web and email communication plan to regularly and automatically inform Michigan citizens in the military and those living overseas of upcoming elections, deadlines and process related to voting.
  - Tracking and measuring detailed data on military and overseas voter registration and voter participation on an ongoing basis.

The objective will be accomplished, in part, by adding fields to the QVF database to more accurately identify military voters and overseas non-military voters. Software enhancements will all provide a method of maintaining the email addresses of military and non-military overseas voters for the purpose of providing ongoing communications with these votes in an efficient and cost effective manner. Military and overseas voters change their physical overseas addresses frequently. Email address changes are less frequent which will enable Michigan election officials to maintain communications with UOCAVA votes who have moved.

How the proposal will establish and operate successful, sustainable and affordable electronic tools that will improve voting systems for voters covered by UOCAVA.

Most costs associated with setting up an effective communication system targeting military and overseas voters will result from software enhancements to the QVF system that will better identify military and overseas voters and track their email addresses. Up front costs will also include a USPS mailing to all known military and overseas voters to collect their email addresses, apprise them of the many voting options available to them and to point them to Department of State's Web site. Most future communications will take place via email at little or no cost.

It is anticipated that the communication project will double the number of military and overseas voters who request electronic ballots as provide by MOVE.

#### Schedule and Milestones

#### Objective I

Work on a detailed analysis and work statement will begin as soon as soon as the Grant Application is approved and funds are available. The technical staff at DTMB will meet with BOE staff to verify project criteria. DTMB will draft a formal Statement of Work.

Milestone 1: Approval of Statement of Work. Approximate Elapsed time: 30 days.

DTMB staff will create screen prototypes of the new electronic MOVE ballot creation process and enhanced electronic MOVE ballot.

Milestone 2: Approval of ballot creation and enhanced ballot prototypes. Approximate Elapsed time: 30 days after Milestone 1.

DTMB staff will program based on approvals of Milestones 1 and 2. DTMB will deliver programs for unit testing.

Milestone 3: Delivery of software for testing. Approximate elapsed time: 30 days after Milestone 2.

BOE staff will test programs.

Milestone 4: Final approval. Approximate elapsed time: one week after Milestone 3.

Objective II

Work on a detailed analysis and work statement will begin as soon as soon as the Grant Application is approved and funds are available. This process will take place simultaneously with Objective 1 analysis and work statement. The technical staff at DTMB will meet with BOE staff and Ken Borsare to verify project criteria. DTMB will draft a formal Statement of Work. Work statement will include analysis if enhancements needed to QVF software. Milestone 1: Approval of Statement of Work. Approximate Elapsed time: 60 days.

DTMB staff will create screen prototypes of the new ballot tracking web application. Ken Borsare will begin enhancements to QVF software.

Milestone 2: Approval of ballot creation and enhanced ballot prototypes. Approximate Elapsed time: 45 days after Milestone 1.

DTMB staff will program based on approvals of Milestones 1 and 2. DTMB will deliver programs for unit testing.

Milestone 3: Delivery of enhanced QVF software for testing. Approximate elapsed time: 30 days after Milestone 1.

Milestone 4: Delivery of new web application software for testing. Approximate elapsed time: 60 days after Milestone 2.

BOE staff will test all programs.

Milestone 5: Final approval. Approximate elapsed time: one week after Milestone 4.

Objective III

Work on a detailed analysis and work statement will begin approximately 60 days after the Grant Application is approved and funds are available. The Ken Borsare will meet with BOE staff to verify project criteria. Ken Borsare will draft a formal Statement of Work.

Milestone 1: Approval of Statement of Work. Approximate Elapsed time: 30 days from beginning of project.

Borsare staff will create screen prototypes of the enhanced QVF software.

Milestone 2: Approval of software prototypes. Approximate Elapsed time: 15 days after Milestone 1.

Borsare will program based on approvals of Milestones 1 and 2. Borsare will deliver programs for unit testing.

Milestone 3: Delivery of software for testing. Approximate elapsed time: 30 days after Milestone 2.

BOE staff will test programs.

Milestone 4: Final approval. Approximate elapsed time: one week after Milestone 3.

#### Objective IV

BOE staff will begin drafting a communications plan as soon as soon as the Grant Application is approved and funds are available.

Milestone 1: Completion of Communications Plan. Approximate Elapsed time: 30 days from start of project.

BOE staff will identify overseas voters by querying the QVF system.

Milestone 2: Draft mailing and send to overseas voters. Approximate Elapsed time: 30 days after Milestone 1.

Milestone 3: Establishment of email list of overseas voters. Approximate elapsed time: TBD.

Milestone 4: Implement ongoing communication plan prior to each election.

#### Reports

1. Programmatic and Financial Progress Reports

The Department of State will provide quarterly programmatic progress reports including:

- a) Progress toward each Milestone
- b) Problems and Issues
- c) Plans for following quarter

The Department of State will provide quarterly financial progress reports including:

- a) Staff hours spent during quarter broken down by staff members and by objectives
- b) Dollars expended during the quarter broken down by staff members and by objectives
- c) Explanation of variations from budget plan
- 2. Data collection points reports
  - At the beginning of the project the Department of State will compile statistics on UOCAVA ballots sent and returned during the 2008 and 2010 Federal election cycles.
  - b) At the beginning of the project the Department of State will compile statistics on electronic MOVE ballots sent and returned during the 2008 and 2010 Federal election cycles.
  - c) Following the 2012 and 2014 State Primary and State General Elections the Department of State will compile statistics on UOCAVA ballots sent and returned.

- d) Following the 2012 and 2014 State Primary and State General Elections the Department of State will compile statistics on electronic MOVE ballots sent and returned.
- 3. Final Report

Following the 2014 Federal election cycle, the Department of State will provide a thorough evaluation of impact of the implementation of the objectives described in the Grant Application. The report will list all success and failures experienced as a result of the implementation of each objective.

#### MANAGEMENT APPROACH

#### Personnel and Contractors

The following state personnel and contractors will form the project team:

#### Department of State, Bureau of Elections (BOE)

Timothy M. Hanson, Director, Program Development Division Stuart Talsma, Analyst, Program Development Division

#### Michigan Department of Technology, Management and Budget (DTMB)

Jelly Gillig, Senior Programmer Ray Johnson, Programmer

Contract Programmer

Ken Borsare, Freelance Developer

#### Project Management Analysis

The Department of State, Bureau of Elections and the Department of Technology, Management and Budget have collaborated since 1995 to create and maintain Michigan's nationally recognized statewide voter registration system (the Qualified Voter File or QVF). The QVF was the model for the statewide voter registration system requirement of the Help America Vote Act (HAVA), Public Law 107 – 252 of 2002. Mr. Borsare was a programmer for the vendor who initially created the QVF software and has been maintaining and enhancing the QVF as an independent contractor since 2002.

When created, the QVF replaced all existing voter registration systems that were in use in Michigan. Michigan election administration is highly decentralize, with 1,515 city and township clerks responsible for the administration of elections and voter registration. Michigan's 83 county clerks also have a role in the administration of elections. Prior to QVF, a voter registration system of some sort existed in each city and township. Systems ranged from highly sophisticated computerized election management systems to manually managed paper files. To create the QVF, BOE and DTMB collaborated closely with

representatives of cities, townships and counties which resulted in a voter registration and election management system that was acceptable all election officials and ultimately became the standard by which other statewide systems were measured. The collaboration has continued as worked groups including BOE, DTMB and representatives of city, township and county clerk offices have worked together to make clerk requested enhancements to the system and to implement legislatively mandated changes. DTMB maintains the system hardware and Oracle database while Mr. Borsare maintains the user interface software.

The proposed project team has all collaborated repeatedly to write web applications to provide services to the county, city and township clerks of Michigan as well as the general public. The largest project was the creating of the Michigan Voter Information Center (MVIC), a Web site used by the public to check registration status, view a sample ballot for every election and find a map and directions to polling locations. In addition, the team has designed and created a secure Web site to exchange election sensitive information (the Election Data Exchange). The Election Data Exchange is used by all county, city and township clerks to exchange sensitive information. The group also teamed up to create an electronic ballot in response to the MOVE Act.

BOE has also had preliminary discussions with counterparts in the State of Indiana to work together to identify people who may be registered to vote in both states. The states border each other and many residents of Indiana have vacation residences in the Michigan cities and townships that border Lake Michigan.

This project will assist UOCAVA voters in a number of ways:

Strategic Goal 1: Enhance Electronic MOVE Ballot and Ballot Creation Process. The existing ballot creation process can be improved. The county, city or township clerk currently goes to a secure Web site and searches for the voter who requests the electronic ballot. Upon verification of registration, the clerk requests a ballot by clicking a radio button. The ballot is created along with instructions on voting and returning the ballot. A 6-step process is followed to create a pdf of the ballot and save it. The clerk must have a software package needed to create the pdf available on the computer. The clerk then generates an email and attaches the pdf.

Web designers will create new software to streamline the process. The new process will eliminate the pdf creation process including the need for special software. A click on the radio button will provide a facsimile ballot ready to send to the voter. The enhancement simplifies the production of the electronic ballot and greatly reduces the error rate thus ensuring that the voter will get the ballot in a timely manner. In addition, the voter must currently print the ballot and then fill in ovals next to selections. The software enhancement will permit voters to fill in the ovals on line ensuring that they hit the target oval properly. This will provide a better voting experience for the voter and reduce the potential for marking the wrong oval or leaving stray marks on the paper ballot make the voter's intention unclear.

There is little risk associated with the software that is envisioned. Software engineers will ensure that electronic ballots are delivered to voters in a secure manner. We believe the changes will encourage election officials to publicize the program to their UOCAVA votes.

We believe voters will find the process very easy and will publicize it to other UOCAVA voters. The measure of performance is an increase in participation by UOCVA voters. We have measure participation since 2008 and will continue to do so after the enhancements are complete.

The programming work will be provided by DTMB staff members. They will track their hours daily and all hours will be verified by a manager.

Strategic Goal 2: Make the Absentee Voter (AV) ballot tracker useable by non-QVF communities. The purpose of the ballot tracking system is to let all voters-particularly UOCAVA voters-know the status of their AV applications in a timely manner. This is particularly critical for overseas voters where time delays due to mailing may result in a ballot that is not counted. Because of Michigan's highly decentralized election management and because over 700 cities and townships have no electronic access to the ballot tracking database, there may be delays in getting tracking data into the Web site used by voters to find out the status of their AV applications. This delay is a result of counties clerks having to provide entry services to their cities and townships that have no electronic access. If there is a delay in posting data, UOCAVA voters are concerned their requests have not been received. The proposed enhancements will allow every city and township to enter tracking information into the database as soon as a request is received. This will speed up the process considerably and provide much more timely service to the UOCAVA voters.

The main risk associated with meeting the strategic goal is purely technical. The project opens up the use of the Internet for tracking voter information. Since the information that will be transmitted is non-private, the risk is minimal and will be mitigated by employing security measure such as encryption, individual UserIDs and complex passwords.

The programming work will be provided by DTMB staff and a contractor. They will track their hours daily and all hours will be verified by a manager.

Strategic Goal 3: Streamline FVAP and EAC's Election Administration and Voting Survey data collection process to ensure that every jurisdiction properly categorizes military/overseas ballots. Because of Michigan's highly decentralized election administration, over 1,500 cities and townships must track and report AV ballots issued to military and overseas voters. Up to now, this data is provided in response to surveys. It takes weeks or months and considerable staff time for the Department of State, Bureau of Elections to collect and process the surveys. It is likely that some of the 1,500+ city and township clerks do not keep accurate records which significantly degrades data. This process can be enhanced considerably by collecting the information electronically at the moment it is captured. Streamlining this process in conjunction with implementing strategic goal 2 described above will provide much more accurate and timely information regarding the issuance of AV ballots to UOCAVA voters. This can only benefit the voters.

There is no risk associated with implementing this process. This is a modification to existing software and security controls are already in place.

The programming work will provided by a contractor. He will track his hours daily and all hours will be verified by a manager.

Strategic Goal 4: Objective: Improve and enhance communication with Michigan's military and overseas voters. It is possible to do much more in terms of outreach to military and overseas voters. It is currently difficult to identify with a high degree of accuracy UOCAVA voters. This information will be captured up front with the proposed enhancements to the database. In addition, both state and local election officials will make a concerted effort to capture and maintain accurate email addresses for UOCAVA voters. UOCAVA votersparticularly those who serve in the armed forces-frequently change addresses making paper mailings both expensive and unproductive. The enhancements will allow state and local election officials to identify UOCAVA voters with a much higher degree of accuracy and to communicate much more effectively by capturing email addresses social media information. The primary goal of the proposed system enhancement is to establish and efficient means of communicating frequently with UOCAVA voters and deliver information guickly and efficiently. We can provide information on various deadlines, law changes and procedures designed to give UOCAVA voters a high likelihood of casting a ballot that will be counted. Since Michigan election law makes electronic ballot mandatory for all elections, an additional goal of the communications enhancements is to increase the number of UOCAVA voters who vote in non-Federal elections.

There is no risk associated with this communications project. Work will be completed by Bureau of Elections staff members who will track their hours daily and identify other program costs. All costs will be verified by a manager.

#### **Current and Pending Project Proposal Submissions**

There are no current and pending project proposal submissions.

#### Qualifications

See attached resumes.

#### BUDGET PROPOSAL

Software development required to implement Objective I will be provided by technical staff employed by the Michigan Department of Technology, Management and Budget (DTMB). The primary consultants will be Jerry Gillig and Ray Johnson. DTMB will modify an existing process that creates electronic ballots for UOCAVA voters. This will simplify the creation of the ballot for city and township clerks. It will greatly simplify the process of voting for UOCAVA voters. All costs are upfront. There will be no ongoing costs. At a minimum, this enhancement is likely to increase the number of absentee ballots issued to overseas and military voters from small jurisdictions by 10%. The following is a summary of the two items staff will accomplish:

- 1. Create new process to create an electronic ballot (DTMB)
- 2. Create enhanced electronic ballot that can be marked on-line (DTMB)

DTMB hours estimated for analysis, design and testing new electronic ballot: 560 Hourly Rate for all DTMB Staff: \$125.00/hour

Total Direct Cost:	560 hours X \$125/hour =	\$70,000
Indirect Cost: \$70,	000 X 17.1% FY11 Indirect Ra	te = \$11,970

Total Objective I Cost: \$81,970

Software development required to implement Objective II will be provided by technical staff employed by the Michigan Department of Technology, Management and Budget (DTMB). Ken Borsare will make adjustments to the QVF software as needed to create the web application. The primary DTMB consultants will be Jerry Gillig and Ray Johnson. DTMB will create a web-based application accessible through an existing secure portal already used by election officials to access election related data. Using the portal allows developers to leverage existing trusted user screening processes. This is a new web application that will be accessible to over 700 cities and townships which makes this a major undertaking. The fact that this enables nearly half of the cities and townships in the state to provide immediate service to overseas and military voters rather than going indirectly through a county clerk makes this a major improvement for the voters. Most costs are upfront. There will be few ongoing costs. At a minimum, this enhancement is likely to increase the number of absentee ballots issued to overseas and military voters from small jurisdictions by 10%. The following is a summary of the three items staff will accomplish:

- 3. Create ability for remote users with valid credentials to sign on to the portal and be presented with the AV Ballot Processing option. (DTMB)
- 4. Create a web-based AV Ballot Processing system that mirror, where applicable, the existing Qualified Voter File (QVF) client-based system. (DTMB)
- 5. Make QVF Adjustments as needed. (Ken Borsare)

DTMB hours estimated for analysis, design and testing web-based AV Ballot processing system: 1,780

Hourly Rate for all DTMB Staff: \$125.00/hour

Ken Borsare hours estimated for adjustments to QVF software: 100 Hourly Rate for Ken Borsare: \$90.00

 Total Direct Cost:
 1,780 hours X \$125/hour + 100 hours X \$90/hour = \$231,500

 Total Indirect Cost:
 \$231,500 X 17.1% FY11 Indirect Rate =
 \$39,587

Total Objective II Cost:

#### \$271,087

Software development required to implement Objective III will be provided by Ken Borsare, a programmer under contract with the Department of State, Bureau of Elections. Mr. Borsare will enhance the existing QVF Absentee Voter Module to include the specific reason an AV ballot was issued. In the process, the module itself will need to be enhanced to make is more user friendly. He will also enhance the QVF's Reports Module to include the new statistical information that will be available. This will allow the Bureau of Election (BOE) to more accurately track the issuance of absentee ballots to UOCAVA voters immediately. BOE will be able to see which cities and townships are and are not issuing ballots to UOCAVA voters and take appropriate steps as needed. All costs are upfront. There will be no ongoing costs. By targeting individual cities and townships it is estimated that issuing AV ballots to UOCAVA voters will increase by a minimum of 10%. The following is a summary of the two changes that will be made to implement the objective:

Enhance QVF Absentee Voter Module: 200 hours Enhance QVF Reports Module: 200 hours Hourly Rate for Ken Borsare: \$90.00

Total Direct Cost:400 hours X \$90/hour =\$36,000Total Indirect Cost:\$36,000 X 17.1% FY11 Indirect Rate =\$6,156

Total Objective III Cost:

#### \$42,156

Implementing Objective IV will require a mailing to approximately 27,000 voters who currently have on overseas address. In addition, the project will require a mailing to all 1599 county city and township clerks. The remainder of the project cost will be dedicated staff time to create and implement a communications plan to better identify military and overseas voters and to capture email addresses and to draft numerous electronic communications. The return on this investment will be great and will increase the return on investment from Objective I-IV. The following is a cost summary of implementing Objective IV:

Overseas mailings: \$27,000 Staff Time: 100 hours at \$40/hr = \$4,000

Total Direct Cost: \$27,000 + \$4,000 = \$31,000 Total Indirect Cost: \$31,000 X 17.1% FY11 Indirect Rate = \$5,301

Total Objective IV Cost: \$36,301

Budget Summary

Objective I:	\$ 81,970
Objective II:	\$271,087
Objective III:	\$ 42,156
Objective IV:	\$ 36,301

Total Project Cost: \$431,514

#### Appendix-Resumes

#### Application Developer Credentials

**Ray Johnson** – Senior Information Technology Analyst 12, Department of Technology Management & Budget/Agency Services, State of Michigan

#### **Experience:**

Hired by the State of Michigan in 1989 as an application developer supporting County Assistance Workers. Responsible for development and maintenance of a variety of specialized client-side and browser-based applications.

#### **Technical Skills:**

Skilled in a multiple development technologies including mainframe systems, stand-alone PC based systems and internet applications. Knowledgeable in C, C++, C#, Java, and Visual Basic. Currently using Microsoft .Net technologies to provide web-based solutions for the Michigan Department of State—Bureau of Elections.

#### Supported Systems:

System: Purpose: Role:	Statewide Index Provides election officials and Bureau of Elections staff a way look up and monitor critical information stored in the QVF. Primary Analyst/Developer and Technical Lead
Role.	Timary Marysh Developer and Teenmour Dead
System:	Election Data Exchange
Purpose:	Provides Bureau of Election support staff a secure way to exchange critical election related data with election clerks throughout the state and trusted vendors.
Role:	Primary Analyst/Developer and Technical Lead
System: Purpose:	Map Verification Application Provides election officials a way to visually examine and correct if necessary maps used to direct voters to clerk and polling locations.
Role:	Primary Analyst/Developer and Technical Lead

Jerry Gillig – Senior Information Technology Analyst 12, Department of Technology Management & Budget/Agency Services, State of Michigan

#### **Experience:**

1989-1994 Application developer supporting the State of Michigan Retirement System for the Department of Treasury. Served as the department's XGEN instructor from 1992-1994.

1994-2001	Programmer/Analyst Worked supporting the State of Michigan Payroll System for the Department of Management and Budget. Served as the department's XGEN instructor.
2001-2006	Primary developer and technical lead supporting multiple web and client- server application for the Department of Treasury. Project team member and trainer for the SERENA (Application Lifecycle Management vendor) implementation project.
2006-Present	Primary Analyst, Developer and Technical lead for a variety of specialized client-side and browser-based applications.

#### **Technical Skills:**

Data Bases:	DMSII, Oracle, Access, SQLServer
Languages:	COBOL, XGEN, C, FORTRAN, SQL, PL/SQL, T-SQL, JAVA, VBScript, JavaScript, C#.NET, VB.NET, HTML, Delphi, ASP, ASP.Net
Programs:	XGEN/RAD, Microsoft Office Suite, Erwin, PowerBuilder, Websphere Application Developer, Microsoft Visual Studio 6, Microsoft Visual Studio 2003.NET, Microsoft Visual Studio 2008.Net, Serena Suite

Currently using Microsoft .Net technologies to provide web-based solutions for the Michigan Department of State— Bureau of Elections, Bureau of Branch Office Services, Bureau of Driver and Vehicle Records, Department of State Information Center, Program Procedures Section, and Program Support Section.

### Supported Systems:

System: Purpose:	Basic Driver Improvement Course Allows course providers to electronically report course results. It initiates collection of fees from the course providers. It also provides reporting functions to the course providers.
Role:	Primary Analyst/Developer and Technical Lead
System:	Branch Office Locator
Purpose:	Allows the general public to locate the nearest Secretary of State Branch based on Zip, City or County.
Role:	Primary Analyst/Developer and Technical Lead
System:	Michigan Voter Information Center
Purpose:	Allows citizens to view information regarding their voter registration, their polling location(s), a calendar of upcoming elections, their County and local clerks, and if available, a sample ballot from their polling location.
Role:	Primary Analyst/Developer and Technical Lead
System: Purpose:	Military and Overseas Voter Act Allows clerks to provide ballots electronically to military and overseas voters who request them.

Role: Primary Analyst/Developer and Technical Lead

System: Purpose:	Organ Donor Allows citizens to add their name to Michigan's Organ, Tissue, and Eye Donor Registry. It also provides role based administration, reporting and donor verification services to the Department of State and the Gift of Life of Michigan.
Role:	Primary Analyst/Developer and Technical Lead
System: Purpose:	Web Renew Allows customers to renew their license plate or watercraft registration online and

print a PDF version of their vehicle or watercraft registration. Primary Analyst/Developer and Technical Lead

Role:

KENNETH E. BORSARE	(b)(6)
(b)(6)	

- OBJECTIVEProvide technical expertise using Delphi and Oracle under a<br/>Windows platform on a team development project, long or short-term<br/>contract basis.
- VALUES Technical Excellence, Perseverance, and Integrity.

#### TOOLS AND TECHOLOGY

Platforms	Windows 95, NT 4.0, 98, 2000, XP, and 2003; and Unix.
Databases	Oracle 7, 8i, and 10g; Paradox; and DBISam.
Development	Borland Delphi 1, 2, 3, 4, 7, and 8.
Components	ReportBuilder, Oracle Data Access (ODac), DBISam, ZipForge,
	XceedZip, Envision Graphics Library, Indy Socket Components
	(TCP/IP, FTP, SMTP, Pop3), and Help & Manual (help authoring).
Programming Expertise	Delphi (Pascal), Windows AP1, SQL92, and Oracle PL/SQL,
	Windows Scripting Language; C, and C++.
Applications Developed	Distributed/replicated Oracle client/server GUIs; desktop database
	GUIs; SQL queries; PL/SQL procedures, functions, and packages;
	ActiveX web components; and various GUI and command line
	utilities.
Commonly Used Apps	MS Word, Excel, PowerPoint, Outlook, FrontPage, Windows Media
	Encoder, Remote Desktop; PC Anywhere; Roxio Easy Media
	Creator, Paperport, OmniPage Pro, Google Desktop.
Specializations	Voter registration, large scale data matching, server administration,
	custom signature replication.
Hardware	PC configuration, setup, and maintenance; DVD/CD burners; cable
	modems; network routers, hubs, and switches; laser, deskjet, and
	Dymo single label printers; scanners; memory; and various USB
	devices.
Sideline	Skills Video editing and encoding, in particular for the production of
	training material.
Web Site Admin	CPanel, Envision Power Board, HTML, PHP, MySQL, and E Mail
	account setup.
Disciplines	Analysis, planning, design, and development utilizing a Rapid
	Prototyping approach.

#### EXPERIENCE

## Nov 1998- Present MICHIGAN BUREAU OF ELECTIONS Lansing, Michigan Delphi/Oracle Consultant

#### Michigan Qualified Voter File System

• Redesigned, streamlined, and radically improved many of the modules originally designed/implemented by SAIC (**Delphi 2** and **Oracle 7.3.4**) that failed to meet customer's expectations.

- Migrated the application to **Delphi 4** and **Oracle 8i**, and then eventually to **Delphi 7** and **Oracle 10g**.
- Migrated all reports from **ReportSmith** to **ReportBuilder**.
- Overcame problems printing to custom paper sizes from Windows.
- Developed tools that enable non-technical users to build Oracle replica servers.
- Developed a system that applies software and schema changes to all 473 **Oracle** replicas nightly without any user intervention.
- Implemented Phase 1 and II of the state's **digitized signature** feature, the second of which involved the development of a **custom signature replication** system using **Oracle PL/SQL** packages, procedures, and functions.
- Developed several ActiveX web applications using Delphi 5, Delphi 7, and MS FrontPage; including an ad hoc query execution tool, a replica server information browser tool, and a Data Problem Monitor (DPM) tools.
- Developed and enhanced many Delphi custom components.
- Developed a centralized dispatch mechanism that sends Emails over **SMPT** using Oracle packages.
- Implemented extensive software enhancements mandated by the Help America Vote Act (HAVA).
- Implemented extensive software enhancements mandated by the state of Michigan's recently adopted Election Consolidation legislation.
- Developed software that allowed CGI personnel to redistrict the entire street index throughout the state of Michigan in response to the year 2000 US Census.
- Setup, maintained, and administered many **Oracle 7**, **8i**, **and 10g** replica servers for development and testing purposes.
- Operated an independent web site (borsare.com) specifically to facilitate the sharing of files with other project members, and to host a discussion forum used to track software bugs and software improvement suggestions.
- Matched the entire QVF voter population against the Social Security Administration's death master file and in order to help the state flag and eventually eliminate inactive voter records.
- Developed and debugged PL/SQL as needed.
- Wrote SQL92 queries and performed data extraction/analysis for project staff as needed.
- Analyzed, diagnosed, and corrected data and software problems as requested.
- Conducted various studies to evaluate migration/design options.
- Evaluated, configured, and/or programmed various development tools, reporting tools, component libraries, page printers, color printers, label printers, scanners, USB add/on ports, CD burners, network adaptors, cable modems, network hubs, network switches, network routers, memory of various types, and other peripherals.
- Created several informational/training videos using Windows Media Encoder.

#### May 1998- Oct 1998 KRONOS INCORPORATED Waltham, Massachusetts Delphi Consultant

### Smart Scheduler Commercial Product

• Developed three high-end GUI editors in **Delphi 3 Client/Server** under **Windows 95/NT4**, running against an **Oracle 7.X** server.

- Developed a complex logical **middle-tier** consisting of dozens of classes and data structures in order to maintain data-integrity within the editors, promote code reuse, and boost performance.
- Seamlessly integrated components created by other developers into the editors.
- Editors sported professional features such as graphical bar charts, drag and drop, cut and paste, and undo.

#### Nov 1989- May 1998 SAIC/SYNETICS Wakefield, Massachusetts Senior Software Engineer

#### Michigan and Texas Voter Registration Systems

- Object-Oriented client/server systems written in Borland Delphi 1.0/2.0 under Windows 3.1/95/NT, running against Oracle 7.X and 8.X servers.
- Worked on design, development, and support of both projects.
- Coordinated team development and implemented a practical approach to **configuration management**.
- Mentored junior Delphi and Oracle developers.
- Created **reusable** custom **Delphi components** to increase programmer productivity, system modularity, and reduce support costs.
- Created reusable Delphi classes, functions, and procedures.
- Created installation programs using InstallShield.
- Designed, implemented, and supported many screens in both systems.
- Developed an electronic software update system for Michigan that downloads and installs software patches over the **Internet** using **FTP**.
- Pioneered a "print now/later" architecture for Texas the allows users to submit print requests to the server and retrieve them at a later time.
- Utilized many advanced programming techniques in order to "push the envelope", including the **Win32 API**.
- Defined the standard workstation configuration for Michigan that was used to deploy over 500 client and server workstations throughout the state, including the installation/configuration of Windows NT 4.0, Windows 95, Personal Oracle, the BDE, TCP/IP, HP printer drivers, resource sharing, software updates, replica databases, and PCAnywhere.
- Analyzed, optimized, and **Tuned SQL** statements using **Oracle's explain plan** and **tkprof** features to boost system performance.

### Project Leader For Two Major Coast Guard GUI Systems

- RV/VR (Report Validation / Vessel Routing) is a **Motif/C++** application that allows an operator to validate ship reports and create routes using a world map featuring full pan/zoom.
- DBTools (Database Tools) is a **Motif/C** application that provides administration features for the same Coast Guard system.
- Both client/server systems run on an Iris Workstation under Unix against an Oracle back end.
- Led the development effort, creating initial design, practical team configuration management methods, monthly progress reports, controlling the budget and schedule, and coordinating the delivery.

- Developed easy-to-use programmer interface to the **Oracle OCI** that provides rowbased access to tables that interfaces directly through mechanically generated **C structures**. This interface was used on these Coast Guard projects as well as the Texas Voter Registration system mentioned above.
- Developed internal component, libraries, objects, and API's that were used by developers to provide basic business logic common to the entire application.
- Both systems were developed in the early 90's, delivered **on time** and **on budget**, and are still use on a day-to-day basis for mission critical operations at the Coast Guard.

# Jan 1995- 2003 CRUIZIN TOURS Fort Lauderdale, FL Delphi/Paradox Contract Developer

- Implemented several desktop database applications for this travel agency business.
- All applications were implemented in various versions of **Delphi** and eventually upgraded to **Delphi 5** utilizing **Paradox databases**.

# Jan 1996- 2002 ACCEL SOFTWARE Stoneham, MA Shareware Developer/Marketer

- Sole proprietor.
- Developed a Windows utility (**Delphi 5**) called **OmniSync** that is used to compare multiple folders, zip files, and FTP folders.
- Available for download on the Internet and sold by **DigiBuy**.

# Jan 1990- Dec 1994 BEST TECHNOLOGY Stoneham, MA Shareware Developer/Marketer

- Sole proprietor.
- Developed a high-performance disk copying utility called *DUPE* (Turbo C Language).
- Generated over 500 registration sales to date. Major site license customers include EXXON, AT&T, GTE, Walt Disney, Unisys, Hewlett-Packard, Nova, Ernst & Young, and Deloitte & Touch.
- Published in the book DOS 6.0 Secrets.

### Jul 1984- Oct 1989 W. J. SCHAFER ASSOCIATES Chelmsford, Massachusetts PC Analyst/Software Engineer

- Provided PC hardware and software support for this 100-person facility.
- Configured, purchased, setup, and maintained all PC's.
- Developed custom applications to support engineers and the Finance Department.
- Became proficient with MS-DOS, MSBasic, C, Pascal, DataEase, WordPerfect, and TBBS.

### EDUCATION BENTLEY COLLEGE Waltham, Massachusetts

• BA Computer Information Systems, May 1986.

• AS Accounting, May 1986.

#### Oct 1990 SILICON GRAPHICS Mountain View, California

Attended an intensive one-week training course on IRIS Graphics Language Programming.

#### Oct 1995 BORLAND INTERNATIONAL Waltham, Massachusetts

Attended an intensive one-week training course on Delphi Client/Server development.

### PERSONAL

- Held DoD Secret security clearance. Former member of the Delphi Developers Group of Boston.
- Former Chairman of the Monterosa of Stoneham Condominium Trust.

#### TECHNICAL PROPOSAL

- 1. Catalog of Federal Domestic Assistance Number: 12.217
- 2. BAA number: HQ0034-FVA-11-BAA-0001
- 3. Title: Minnesota Proposal for On-Line FPCA and FWAB Wizard Improvements and Advances in Other Aspects of Election Absentee Systems for UOCAVA Voters
- 4. Cage Code: (b)(4) DUNS number: (b)(4)
- Identity of applicant: Office of the Secretary of State Mark Ritchie, Minnesota Secretary of State

Complete list of contractors: Overseas Vote Foundation

- Technical contact: Overseas Vote Foundation Susan Dzieduszycka-Suinat, President and CEO 4325 Old Glebe Road, Arlington, VA 22207 Phone: (202) 470-2480 Fax: (202) 318-0653 <u>susan@overseasvotefoundation.org</u>
- 7. Administrative contact: Beth Fraser
  100 Rev. Dr. Martin Luther King Jr. Blvd., Suite 180
  St. Paul, MN 55155
  Phone: (651) 201-1334
  Fax: (651) 215-0682
  Beth.fraser@state.mn.us
- Proposed time of performance: October 2011- September 2012, with evaluation / research report completed in February 2013

# Minnesota Proposal for On-Line FPCA and FWAB Wizard Improvements and Advances in Other Aspects of Election Absentee Systems for UOCAVA Voters

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# Minnesota Proposal for On-Line FPCA and FWAB Wizard Improvements and Advances in Other Aspects of Election Absentee Systems for UOCAVA Voters

# TECHNICAL APPROACH AND JUSTIFICATION

#### 1) Executive Summary

The State of Minnesota has been and remains one of the leaders in providing innovative online voting services to UOCAVA voters. Through this grant opportunity, Minnesota desires to continue its efforts to provide the best possible resources and tools to successfully guide the voter through the less-than-transparent UOCAVA voting process.

Minnesota is home to approximately 91,000 eligible overseas military and civilian voters. In 2008 Minnesota enacted most of FVAP's legislative recommendations, including the electronic transmission of blank ballots to UOCAVA voters. That year, about 15,869 UOCAVA voters participated, which was a great improvement over 2006, however, enormous potential for further improvement still remains.

VOTERS REACHED UOCAVA ballots transmitted	2006 11,931	2008 15,869	% Increase 33%
UOCAVA ballots returned by Election Day	2,958	11,526	290%
EFFECTIVENESS: RETURN AND REJECTION % transmitted ballots returned by Election Day % ballots returned by Election Day rejected	ON RATES 24.8% 8.4%	72.6% 1.8%	

In 2008, Minnesota also implemented a Military and Overseas Voter Services website, designed by the Overseas Vote Foundation (OVF), to provide voters an FPCA Wizard. (Minnesota was the first state to offer its voters this type of tool.) The results of the program were outstanding:

VOTERS REACHED	2006	2008
Voters Using the FPCA or FWAB Wizard:	0	7,155

Source: Overseas Vote Foundation, Overseas and Military Voter State Fact Sheet: Minnesota

In its first year, a number equal to nearly  $\frac{1}{2}$  of UOCAVA voters who were sent a ballot in 2008 used one of the on-line wizards. Despite this incredible start, there is still room for improvement. Since it was first launched, the state has gained insight into: the dynamics of the user interacting with the online system; and, the need for enhanced voter communication and outreach. These factors, as well as system design features, can greatly influence the outcome of the UOCAVA voting process.

In light of the above, this project will focus heavily on the voter experience in both the registration/ballot request process and the write-in ballot procedure. We will test and verify the hypothesis that with improvements in voter information, website design and voter communication, the UOCAVA voter base will grow and the voter failure rates will be reduced. Our objective is to grow ballot requests using the on-line wizard by 60% and to ensure that at

least 95% of those who use the tool succeed at submitting the resulting documents and are sent a ballot.

An innovative approach to the registration/ballot request process will involve prototyping the use of video and multiple points of communication with the voter. In addition, we will prototype and test the first online implementation of a wizard-style Federal Write-in Absentee Ballot, which includes online marking for federal, state and local-level offices.

Our project will make use of the power of data collection by obtaining data on each aspect of the online process, from registering and requesting a ballot to downloading and tracking the ballot.

In addition to integral data tracking and reporting, the site will be able to take advantage of Google Analytics reporting facilities, providing data on the usage of the tools and services by the voters. Further data collection from Minnesota's absentee ballot system will allow further conclusions to be drawn. A post-project evaluation and report will be conducted by OVF in order to assess the project's impact for Minnesota and its possible significance for other states and local jurisdictions.

# 2) Goals and Objectives

Our primary goal will be to demonstrate that through the technological advancement of existing online UOCAVA systems into the next generation of online voter services, distinctly positive results can be achieved in increasing voter participation and reducing UOCAVA voter failure rates. *[Factors 1, 2, 3 and 4 – Significance, Sustainability, Impact and Strategic Approach]* 

After examination of current processes and with our significant experience in UOCAVA voting systems, the State of Minnesota proposes new innovative improvements to enhance the effectiveness of our system. Minnesota fully supports the premise that innovations spearheaded by our state, which are proven to bring positive results, can and should be made available to other state and county licensees of the OVF State Hosted Systems solutions. *[Factors 3, 6 and 7 – Impact, Scalable, Collaborative]* 

Our main objective is to grow ballot requests using the on-line wizard by 60% and to ensure that at least 95% of those who use the tool succeed at submitting the resulting documents, while reducing the voter failure rate in 2012 as a result of the proposed enhancements.

To this end, we will create, deploy and test several new system components for both the voter registration and write-in ballot processes.

Further objectives include:

- Expand and reinforce the support offered to voters who use the online registration/ballot request process, so that they can better *follow through* with the form transmission to their election official. This will directly impact the rate of successful registrations.
- Augment the capability of the FWAB to serve voting needs for state and local level elections. Successful use of the FWAB will reduce failure rates.
- Bolster the type and usefulness of information provided to voters through the website and to encourage pro-active communications. This will directly impact participation and

support our main goal.

Underlying these objectives is the precept that each action we take will provide us with new data, which can be used to gain a deeper level of insight into the UOCAVA process. With these insights, we will be able to create better services which will, in turn, invite more voters to become part of the process.

The implementation of a UOCAVA voting system is not a simple one-time process of hiring a vendor who will install a new set of online processes. Every change significantly affects the voters who use it – they are as much a part of the system as the technology.

# 3) Service and Solution Innovations

# 3.1) Voter Registration/Ballot Request Process Improvements

Minnesota is well ahead of many states in serving UOCAVA voters through an integrated voterfacing set of tools and services. The Minnesota Military and Overseas Voter Services website <u>https://minnesota.overseasvotefoundation.org</u> is an excellent basis for developing the ongoing technological advancements in services for UOCAVA voters. *[Factor 2 - Sustainable]* 

The principal and most strategic application in the existing suite of Minnesota UOCAVA voter services is an **FPCA Wizard** with Forms and Instructions. The FPCA Wizard represents a transformation from the historically cumbersome and error-laden methods for manually registering overseas and military voters to a refined, well-designed, easy-to-use and voter-oriented online, automated process. *[Factor 1 - Significance]* 

We propose to approach the beginning and end of the FPCA Wizard in new ways designed to better inform voters of the UOCAVA voter registration/balloting process and prepare them for the actions they need to take. *[Factor 4 – Strategic Approach]* The key issue identified is that voters do not always print, sign and send in their form at the end of the online FPCA Wizard process. Voters tend to assume that a form completed on-line is equal to the completion of the entire process and do not properly follow the instructions to submit their form, whether by email, fax or by post, after printing and signing it. This is a weak point in the process and a source of failure.

According to the Overseas Vote Foundation, 7,155 Minnesota voters used the FPCA or FWAB Wizards in 2008 and 1,574 used these tools in 2010. OVF has data (names, birth years) for 6,022 of these voters. A cursory comparison of OVF data with data of UOCAVA voters who submitted applications to vote as UOCAVA voters in 2008 and/or 2010 seems to indicate that 4,002 of them submitted an application for a ballot in at least one of these two elections; of this number, 545 submitted an application in both years. That leaves 2,020 or 34% of them who used one of the on-line wizards, but did not submit the resulting documents. While some voters may have consciously chosen not to, perhaps because they did not believe that they would have enough time to complete the process and have their ballot counted, and other applications may have been lost in transit, it is highly likely that many of these voters misunderstood the steps that they needed to take to complete the process – an issue that can and should be resolved with the funds from this grant.

**A. Pre-empt Failure through Education**: A short 1.5-2.5-minute professional video designed to inform the voter of the process will be created, developed and integrated into the RAVA process. The video will explain the entire UOCAVA voting process and the most crucial aspects that the voter must execute. *[Factors 3 and 5 – Impact and Innovation]* It will capture the voter's attention through its interactive nature and far surpass the effectiveness of the current written instructions in educating voters of the key steps involved in the UOCAVA absentee voting process.

**B.** Pre-empt Failure through End-of-Process Interactive Value Exchange: Another step that will be taken to address the problem of voters not reading the instructions on screen or on the printed letter that comes with the FPCA, at the end of the FPCA wizard process, is to create a more "interactive finish" to the process/*Factors 3, 5 and 6 – Impact, Innovation and Scalability*/ The voter, having just completed entering his/her data is anxious to get to the final step and wants to believe that is will all happen online.

The crucial moment in the process is right before the voter gets a signal that they have reached the end of the FPCA Wizard process. Prior to downloading the form, a new dialogue box will open up with 3 options for transmitting the printed, signed form. The voter must choose an option in order to continue to the form download. These options will necessarily record the voter's intention to either:

- 1) <u>Email Transmission</u>: Print, sign, scan and email the application as an attachment to the appropriate county official. [Note: the LEO email address will be pulled in from the MN Election Official Directory and provided onscreen to the voter]
- <u>Fax Transmission</u>: Print, sign, and fax the application to the appropriate county official. [Note: the LEO fax number will be pulled in from the MN Election Official Directory and provided onscreen to the voter in a pre-filled fax cover sheet]
- Send by Post: Print, sign, and mail-in the application as an attachment to the appropriate county official. [Note: the LEO mailing address will be pulled in from the MN Election Official Directory and provided onscreen to the voter]

Voters making their choice at this stage will provide us with information about their intent. This added step will make this final and integral step clear to the voter while providing them with information about how to execute the step -a highly effective value exchange.

The three buttons will provide the added benefit of allowing us to know if the user clicked at all, and then what his/her intent was at the time of going through the FPCA Wizard process. This will allow data tracking and analysis of the information.

**C. Pre-empt Failure through Follow-up Voter Reminders**: After the voter has downloaded the form, an automatic email is generated to thank them and to remind them to follow through with transmission of their form to their election official. We will take this one step further and develop a system which sends a second reminder to the voter at a specific interval – to tell them that they should login to the Minnesota Ballot Access Tracking System to confirm the receipt of their form by the election official and what to do if it has not been received. *[Factor 3 and 5 –* 

*Impact and Innovation]* This step will also will also meet the sustainability as well as the scalability criteria, because not only can it be utilized by other jurisdictions once it is effectively tested, but once built, it can be utilized in subsequent election cycles. *[Factor 2–Sustainable]* 

# 3.2) Federal Write-in Ballot Improvements

*The Minnesota* Military and Overseas Voter Services website currently provides a *customized* "Vote-Print-Mail" FWAB Wizard, which <u>meets the 2012 MOVE requirements</u>. It is built on the same engine as the FPCA Wizard. It integrates a "zip-to-district" matching with the voter's address and then pulls in the voter's federal-level candidate lists from VoteSmart.org. Voters enter their U.S. address and the system presents them with federal candidate lists by office so they can point, click, vote, and print their ballots. *[Factor 1 - Significance]* 

Modifications to the FWAB Wizard contribute to a main goal of the project by further facilitating the voting in state and local elections.

The manner in which the voter's precinct and associated candidate list are determined will be modified for voters other than citizens who are indefinitely overseas (since they are only permitted to vote in federal elections) such that the addresses must exactly match the Minnesota Pollfinder addresses in order to be associated with a precinct. Address entry into the current FWAB Wizard will be modified by implementing pull-down menus in fixed fields, rather than the current free-form fields. The address entry system will also need to distinguish citizens residing overseas indefinitely because they are only eligible to vote in federal races. *[Factor 5 – Innovation]* 

Minnesota will provide the address ranges or data that is underneath the current precinct finder data. Such data is already available and provided to others via the Google/Pew VIP project. Already having these administrative processes in place will support and ensure the success of this system upgrade. Following the address to precinct match, the system will generate a list of candidates and ballot questions for all races for which the voter is eligible.

# 3.3) Voter Information Service – What's on My Ballot?

The modifications made to the FWAB will be made of further use in augmenting the voter information services available throughout website. *[Factors 2 and 5 – Sustainable and Innovative]* Using the same precinct and candidate list identification systems, we will be able to create a distinct "What's on My Ballot" module. This will allow UOCAVA voters to better inform themselves about the ballot prior to actually voting, thus boosting the likelihood that they complete the voting process. *[Factor 1 – Significance]*. They will enter their address and see the names of the candidates and/or any ballot questions for which they are eligible to vote.

#### 3.4) Outreach Improvements – Mailing List Development

The purpose of this activity is to build communications and outreach to UOCAVA voters.

Reminding voters to take action at crucial times during an Election Year will support growth in successful participation. A pro-active communications program is possible with applications like the FPCA Wizard that can build a UOCAVA voter mailing list. *[Factor 1 - Significance]* We will automate the collection of voter email addresses for voters who opt-in to our list and

integrate that with an online mail system designed for mass mailings. Minnesota can then plan to conduct regular informational online mailings to remind UOCAVA voters of important deadlines, registration requirements and any other key information. *[Factor 3 - Impact]* The list will gain increasing value and usefulness as it grows and in future years can be utilized to communicate elections information and to encourage UOCAVA voters to apply for their ballots. *[Factors 2 and 6 - Sustainable and Scalable]* 

<u>Data Aspect</u>: The mailing list will identify voters that are interested in a closer link to the state office with respect to voting and elections. We will also be able to track the success of any mailer sent – for example, the click through and open rates of the emails sent to the list will give insight into the value of this form of outreach.

# 3.5) Reporting Dashboard Enhancements

The purpose of these enhancements is to significantly increase the use and distribution of available data.

The Minnesota customized Military and Overseas Voters Web Service includes a backend Reporting Dashboard system, which provides real-time access to our voter registration data. However the ability to more easily perform cross tabulations of aggregate data should be a simpler, more-usable aspect of the system. A new interface will be developed to allow us to define and schedule regular reports. This will assure better data tracking and allow for timely, pro-active outreach should participation be less than expected. *[Factor 2 and 5 – Sustainable and Innovative]* 

We expect to be a leader in analysis of voter data and election process data that we, or others, or FVAP could use to compare to other states of similar profile. *[Factor 4 - Strategic Approach]* 

# Schedule and Milestones:

- System Requirements Review Months 1-2
- Voter Registration/Ballot Request Process Improvements Months 3-5
- Federal Write-in Ballot Improvements Months 6-7
- Voter Information Service What's on My Ballot? Months 6-7
- Outreach Improvements Mailing List Development Month 8
- Reporting Dashboard Enhancements Month 9
- Post Project Evaluation and Report Dec 2012 Feb 2013

# Minnesota Proposal for On-Line FPCA and FWAB Wizard Improvements and Advances in Other Aspects of Election Absentee Systems for UOCAVA Voters

# COLLECTION OF DATA, RESEARCH AND REPORTING

During both the registration and balloting phase we will collect data important to measuring outcomes and also track those intervening variables that would impact results. These variables include: voter experience (i.e. new voters versus experienced voters), civilian vs. military voters, age, education and gender.

The successful use of technology can often be influenced by the individual's age and education level. This will provide valuable insight into determining which individuals tend to fail during the voting process. Do civilian or military voters have more problems?

All data gathered in the FPCA Wizard can be migrated as needed to other databases. Indeed this would be achieved by implementing the use of the IEEE Common Data Format (CDF) as a standard format, which will allow us to not only make state comparisons but also county level comparisons. The implementation of this system on the county level will allow us to make an important comparison during research and analysis, namely success rates across counties. Often research measures success across elections or across states.

In Minnesota, all absentee data is housed centrally in a statewide database, which makes it possible to easily compare and analyze voter-level data to see whose applications were received and who succeeded at submitted their ballots in time to have them counted. What characteristics do these voters have in common? We will also be able to analyze time series data. All of this will provide important comparisons and benchmarks for analysis.

#### **Programmatic and Financial Progress Reports**

Reporting will take place in the form of bi-monthly progress reports. This will allow election officials to monitor usage and to judge the impact of any outreach efforts. Should it be determined that outreach efforts are not having an effect, officials can then adjust their plans in order to distribute resources in an effective manner.

Each report will contain the following information:

- 1. Usage: the number of applications created by the FPCA Wizard, the number of FWABs created by the FWAB Wizard, the number of questions received on the help desk
- 2. Tracking of Voter Demographics (such as voter history, voter types, age, gender, education level): This data will be provided through the reporting dashboard
- 3. Google Analytics: number of site visits, bounce rate, time spent on site, page views
- 4. Funds expended to date

The first report can be generated after the data capture element is implemented. Thereafter, these reports will be compiled in months 4, 6, 8 and 10.

# Final Election Report on Voter Experience in the 2012 General Election

This report will analyze the overall success of the project. It will provide the final statistics on the usage of voter servers and blank ballot delivery. It will also contain macro-level analysis including:

- The numbers and percentages of voters who used one of the on-line wizards.
- The numbers and percentages of these voters who successfully submitted the resulting documents.
- An analysis of the ways in which voters indicated that they intended to return their FPCAs and whether they ultimately submitted a ballot.
- An analysis of whether voters who used the on-line wizards are more or less likely than the average UOCAVA voter to submit their ballots on time.
- An analysis of whether voters who used the on-line wizards are more or less likely than the average UOCAVA voter to have their ballots accepted or rejected.
- An analysis of the dates FPCAs were received and the dates of the reminders sent to see what impact, if any, reminders had.
- The number of local election sites that feature a link to the Minnesota Military and Overseas Voter Services site and of partner organizations that posted a link or otherwise promoted it.
- An analysis of the path voters used to find the Minnesota Military and Overseas Voter Services site to see how often they came from local election sites and through referrals from other partner organizations.
- The number of FWABS generated using the FWAB wizard in which voters cast votes in state and/or local races.
- An analysis of the correlation between the number of hits to the What's On My Ballot module to the number of ballots successfully submitted.

# Minnesota Proposal for On-Line FPCA and FWAB Wizard Improvements and Advances in Other Aspects of Election Absentee Systems for UOCAVA Voters

# MANAGEMENT APPROACH

Identification of personnel and contractors involved: Project Manager: Claire Wilson, Director of Voter Outreach Contractor: Overseas Vote Foundation

#### Past, present or proposed collaborative activities

Secretary Ritchie has brought a collaborative approach to the work of the Office of the Minnesota Secretary of State. One of his first acts was to turn FVAP's suggestions for improving the voting process for military and overseas voters into legislation. He then worked with local election officials on ensuring that the bill could be easily implemented and with FVAP to get the changes passed. In 2008, nearly all of the suggestions were signed into law and UOCAVA voters benefitted from the new process in that election. In 2010 Secretary Ritchie advocated for, and the legislature enacted, an earlier primary, providing UOCAVA voters with a longer absentee balloting period.

Secretary Ritchie and his staff have also taken a collaborative approach to working with county, city and other local election officials on improving Minnesota's elections process. They have been key partners in identifying areas that need improvement and ways to improve our processes.

This grant will further our collaboration by ensuring that local election officials are entirely familiar with the special rights and privileges afforded to UOCAVA voters and providing them the opportunity to provide better service to these voters via a link on their websites to the Minnesota Military and Overseas Voter Service.

#### <u>Goal 1: Improve experience for UOCAVA voters and reduce impediments to success by</u> making sure that voters fully understand the steps they need to take to submit their ballot request.

As described in the Technical Approach section, evidence seems to indicate that at least some voters who use the FPCA Wizard (perhaps as many as 34%) mistakenly believe that they have successfully completed their ballot application process once they have come to the end of the online process and do not understand that they need to sign their FPCA and submit it either as a scanned attachment, by fax or by mailing it in. As a result, in the current process, the potential UOCAVA voter takes the time to go through the online process, but may not realize that they have not successfully completed and submitted the application.

Two tools will be developed and implemented to assist the voter in understanding the application process in its entirety:

• A short instructional video for voters to watch before beginning the process will be recorded and developed. This video will clarify the process on the front end of the experience.

• The end of the process will be structured with the implementation of an enhanced system design feature so that voters cannot complete the process without indicating how they intend to submit their FPCA.

The Office of the Secretary of State will work in collaboration with OVF to write the script for the video and will also provide input for the design of the last page of the FPCA Wizard.

Potential risks to the implementation of these tools include:

- Voters will not view the video.
- Despite the reminders to download the ballot, voters will not take the additional step to download, sign and submit the FPCA.

In order to meet and mitigate these risks, the video will be prominently featured on the first page of the "Register and Request your Ballot" portion of the Minnesota hosted OVF site. The video will not be easy to dismiss with such prominent placement and the clarity of the instructions delivered through video messaging will directly influence the voters understanding of the information on the site and will result in a more successful application process.

In addition, once the voter completes the FPCA process and chooses an option for submission, they will receive an automatically generated email reminding them to submit their application in case they have not yet done so. Providing additional reminders that the application is not complete until it has been downloaded, signed and submitted will mitigate the risk that the voters might not return the application despite the enhanced system features.

Performance indicators will include:

- The number of times the video is viewed.
- The number of times the video is viewed in correlation to the number of applications received.
- The number of reminder emails read in correlation to the number of applications received.
- The number of applications received from voters who use the FPCA Wizard.
- The percentage of voters who use the FPCA Wizard who successfully submit applications and who submit ballots on time; these figures can be broken down by demographic factors as well as by the method of submission the voter indicated they were going to use.

# Modifications justifications include:

Despite the fact that voters are clearly reminded through print text on the screen and in instructions once the FPCA Wizard process is completed, these instructions delivered in this particular manner are not necessarily heeded or effective. Changing the ways in which these messages are delivered so that they are more interactive and more engaging will likely resonate with voters who have a higher level of familiarity with internet-based communications and who are more likely to respond to instructions delivered in these styles. Modifying the existing processes seems necessary to catch the attention of voters who are accustomed to submitting forms electronically without needing to download or submit them in alternative ways.

# Projections of effectiveness include:

OVF has already utilized video on their site to great effect. When they instituted an instructional video for the FWAB Wizard, for instance, there was a 1 to 1 success rate. 8,500 voters viewed the video and 8,500 FWAB's were completed. We expect the same or similar results from a video outlining the FPCA process. In addition, if a voter receives the instruction to select the submission method, we expect that this step will increase their awareness of the step and will result in more completed applications submitted.

# Goal 2: Improve the voting experience for UOCAVA voters and reduce impediments to success in voting in all races in which they are eligible to vote.

Currently, local election officials report that the majority of voters who fill out Federal Write-in Absentee Ballots vote solely in federal races. This is in spite of the fact that the majority of UOCAVA voters are eligible to vote in all races on the ballot. This discrepancy is likely because voters are not aware of the state and local races and candidates on the ballot and as such cannot write them in. When a voter fills out the FWAB Wizard now, it can provide them with federal candidates to choose from based upon the voter's zip code. In order for a voter to know the other races and candidates on the ballot, the voter must take additional steps and check multiple sources, which can be a burden for the voter.

<u>Creating a tool that will allow the FWAB Wizard to display local races will be developed in the following ways:</u>

- Minnesota will provide OVF with address ranges so that a voter's address can be precincted when entered into the FWAB application.
- OVF will also be provided with candidates and question lists for races for each precinct.
- The programming will then be created so that voters will be presented with candidates and questions for all races in which they are entitled to vote.

There are two potential risks involved in modifying the FWAB Wizard:

- The voter could be presented with the wrong candidates.
- Voters who are not eligible to vote in local or state races might receive choices of candidates for local races.

These risks would be addressed and mitigated by having the FWAB wizard utilize address ranges to determine races provided by the state. Prior to receiving the list of candidates, the FWAB Wizard will ask the voter to indicate which category of UOCAVA voter they are and will only provide state and local candidates to military voters and those temporarily overseas.

Performance indicators will include:

- Tracking the number of voters who choose to utilize this new tool
- Carefully monitoring the correlation between those who use the tool and those who successfully cast their ballots with votes cast in state and local races. (Please note: the tool will track only whether the voter selected any candidates in state or local races, not the particular candidate selected or the race in which a candidate was selected.)

# Modifications justifications and projected effectiveness:

Modifying the processes in this way will expand the opportunities UOCAVA voters have to connect to their home communities through the elections process. Allowing them an accessible and viable option for voting an entire ballot will hopefully increase both their interest in voting and allow them to vote in the same manner as those who successfully received a ballot from the state.

# Goal 3: Improve the voting experience for UOCAVA voters and reduce impediments to success in voting in all races in which they are eligible to vote while providing an opportunity to increase their awareness of and participation in upcoming elections.

There is currently no easy way for UOCAVA voters to find out about the races in which they are eligible to vote and/or to become informed about the candidates. We would address this by adding a tool to Military and Overseas Voting Service to assist voters in seeing the races and candidates that will be on their ballots, similar in form to the Sample Ballot which Minnesota residents can view and utilize prior to their voting experience. This "What's on My Ballot" module will facilitate engagement and better inform UOCAVA voters. This module is anticipated to increase the likelihood that they will feel prepared to successfully participate in the elections process.

The tools and programming that would need to be developed are very similar to those listed above for the proposed changes to the FWAB Wizard. In this instance, the tool will also provide voters links to the candidate information (if provided to the Office of the Secretary of State by the candidates) so that they can continue to actively educate themselves about the races and the candidates. This will once again increase their connection to the voting experience.

A similar risk occurs when creating the "What's on my Ballot Module" as occurs when localizing the FWAB Wizard, which is that the voter could be presented with wrong candidates. This also will be mitigated by having the Wizard utilize address ranges to determine which races to show.

Performance indicators will include:

- How many voters choose to utilize this new tool
- Feedback received from and generated by voters regarding the use of the tool
- The number of click throughs to other informational sites from the tool

There is currently no tool available to UOCAVA voters that allows them to prepare themselves for the ballot that they will eventually receive and vote. Modifying the current modules offered to UOCAVA voters enhances their voting experience while potentially increasing their interest in participation.

# Projections of effectiveness include:

Sample ballots are widely utilized by Minnesota residents through the OSS polling place finder tool on the elections home website. The Office of the Minnesota Secretary of State works in collaboration with many non-profit and community groups to educate Minnesota's eligible voting population about this module. Feedback from these groups as well as the number of hits indicate that the Sample Ballot module which was viewed over 54,000 times on the day before election day alone, educates voters and allows them to prepare for their voting experience. Based on this experience among domestic voters, we anticipate this modification would be very useful and effective for UOCAVA voters.

# Goal 4: Improve experience for UOCAVA voters and reduce impediments to success by creating an electronic mailing list through which pertinent election information as well as reminders regarding upcoming elections can be sent to UOCAVA voters.

Currently, the only mechanism by which the state of Minnesota communicates with UOCAVA voters is if they opt to receive an office email newsletter, which provides information about the office generally. No list is maintained of UOCAVA emails so no outreach or communications can be delivered electronically to encourage participation or remind voters of important deadlines.

The following tool will be developed to facilitate communications with voters:

- Emails will be collected and integrated with an online mail system designed for mass mailings.
- Calendars will be created reflecting when reminders should be sent.
- Emails will then be automatically sent to those who have opted-in to the mailing system.

While the risk exists that some voters may not wish to receive emails from the elections division informing or reminding them of elections, these voters can opt-out of the email system at any time by simply clicking an unsubscribe link.

Performance indicators will include:

- How many emails are being received and not bouncing back to the system
- How many voters choose to not opt-out of the email system and how many click through successfully and frequently.

Research has proven that voters who are actively reminded about voting and elections are more likely to participate in elections. Currently, UOCAVA voters, because of their distance from the campaigns and races are not generally reached by the typical GOTV outreach efforts that voters who reside stateside are exposed to on a regular basis. Reaching out to these voters and reminding them to register and to apply for their ballots, to check on the status of their application and ballot, and to return their ballots will keep UOCAVA voters informed and more closely involved in the elections process.

Goal 5: Improve experience for UOCAVA voters and reduce impediments to success by ensuring that local election officials fully understand the rights and privileges afforded to UOCAVA voters and can better serve them by providing a direct link from the local election officials' websites to Military and Overseas Voter Service. Also by providing links to the Military and Overseas Voter Service from websites of other organizations with which UOCAVA voters are likely to interact. Despite Minnesota's great success with reaching out to UOCAVA voters effectively through the Military and Overseas Voter Services employed by the Hosted Systems Program of Overseas Vote Foundation, currently only 14 out of the 87 counties have a link to this website on their local elections site. Only 1 of the 5 of the largest Minnesota cities has a link on their website. This is significant, because, in the State of Minnesota, counties fully administer the UOCAVA voting process. UOCAVA voters may initially visit their city or county website in search of elections information. A clear way to benefit UOCAVA voters would be to have the Minnesota OVF website clearly linked on city and county elections sites. In addition, because cities are not directly involved in UOCAVA processes, city clerks are not as familiar with the process. Occasionally, UOCAVA voters fill out regular absentee ballot applications which are received by local election officials who are not familiar with the privileges associated with UOCAVA voting, including the electronic transmission of ballots, and then do not afford these privileges to the voter. Cities need additional education on the process for UOCAVA voters and how it differs from the standard absentee balloting procedures so that UOCAVA voters can benefit directly.

Some UOCAVA voters may not be actively seeking out information about the election, but may become interested in voting if provided with an easy path to do so. We will collaborate with organizations with which voters may interact, such as colleges and universities with study abroad programs and religious organizations that send missionaries abroad, to maximize exposure to the Minnesota Military and Overseas Services website through links on these organizations websites, links on their Facebook pages, links sent via Twitter, and/or links sent by email.

A plan and tools will be developed for this outreach effort in the following ways:

- In collaboration with the League of Minnesota Cities, a plan will be developed to provide better education to city clerks and local election officials regarding the UOCAVA voting process.
- Instructions and training will be created and geared towards city clerks that will focus on how to handle regular absentee ballot applications that arrive in their offices from what appear to be UOCAVA voters.
- Work will begin with county auditors and clerks of large cities to encourage and support them in providing the OVF link in a prominent location on their elections website.
- Organizations with potential links to UOCAVA voters will be identified. Meetings with these organizations will be held to encourage their active participation in supporting voting in the 2012 election.

While there is a small risk that organizations could misunderstand the purpose of the web tool and promote its use by domestic absentee voters, we will mitigate this risk by providing them with draft language that will make the differences clear. Also, if domestic absentee voters go to the site, it will be clear to them that it is not a tool that applies to them.

Performance indicators will include:

- The numbers of trainings successfully conducted with city clerks.
- The number of counties and larger cities who add the OVF link to their local elections website.
- The number of organizations that promote use of the OVF link to their lists of potential UOCAVA voters.

• Tracking the number of voters who access the Minnesota OVF site from these various sources.

A sustained push such as this to conduct outreach and education with local election officials has not yet occurred and is reflected in the low linkage rates on local sites. Partnering with local election officials, who are often the first and frequently only point of contact with elections for UOCAVA voters will better serve voters, ensuring that they receive accurate information from local election officials and that if they visit their home county website for elections information, they will have immediate access to the comprehensive voter information that appears on the Military and Overseas Voter Service website.

# Milestones

- FPCA Wizard Application Improvement
  - Development of video script
  - o Taping of video
  - o Launching video
  - Designing new page and new page functionality
  - o Testing and launching new functionality
- FWAB Improvements and creation of What's on My Ballot module
  - o Programming requirements laid out
  - o Programming completed and address ranges applied
  - Candidates added (when timely)
- Mailing List Development
  - o Programming requirements laid out
  - o Mass email system designed
  - o Calendar created
  - o Informational emails sent
- Outreach to local election officials & organizations
  - o Training materials developed
  - o Trainings conducted
  - o Consolidated push to have officials and organizations add/promote links

# Measures of Success

The design and implementation of these strategic goals will result in success measures which rely on data not previously collected in a systematic way, if at all. It has been difficult up until this point to draw conclusions about exactly how many voters are taking advantage of the on-line tools and, of those, the reasons that UOCAVA voters fail to complete the applications process or return ballots. According to OVF, 7,155 Minnesotans used one of the on-line Wizards in 2008, but a cursory review of the data seem to indicate that up to 34% of them failed to submit the resulting document. More thorough research would need to be done to confirm this statistic and to find out if there are other factors that are the cause. Even if the failure rate is half of this number, there is clearly room for improvement. Also, since we do not currently send reminders, we do not have data on how sending reminders may impact the voting experience.

Increasing the methods by which we collect data will enhance our ability to determine and measure success as well as provide an accurate basis for future improvements.

In addition to the enhancements to data analysis provided by the reporting dashboard enhancements, the measures of success for these goals will be dependent on the following:

- Ensuring that the Minnesota Military and Overseas Voter services allows for tracking methods by which voters intend to submit their FPCA.
- A post-election analysis of UOCAVA voters who did not follow through and submit the FPCA.
- Recording the ways in which voters indicated their intent to return the FPCA and whether they ultimately submitted a ballot, analyzing whether those ballots were received on time and eventually accepted or rejected.
- Comparing dates FPCA's were received against the dates of the reminders sent.

In addition to the future usefulness of the new data provided by the implementation of these strategic goals, success will ultimately be measured by the UOCAVA voters experience with the enhanced modules, increased communications, and extended outreach measures.

- Increased FPCA completion and submission rates 60% increase in the number of voters who use the FPCA Wizard, while ensuring that at least 95% of those who use the tool succeed at submitting the resulting documents and are sent a ballot.
- Increased usage of the Minnesota Military and Overseas Voter Services from local election sites and through referrals from other partner organizations 50% of hits to Minnesota Military and Overseas Voter Services coming directly from these sources.
- Increased numbers of FWABs with votes cast in state and/or local races 30% of returned FWABS indicate local races voted.
- Demonstrated understanding of the UOCAVA voting process by city clerks 100% of clerks in cities with populations over 50,000 trained directly (15).
- Higher percentage of county and large city elections websites linking directly to the Minnesota Overseas Voter services 70% of counties and 75% of large cities linked directly to the Minnesota Military and Overseas Voter Service.
- Having organizations with ties to UOCAVA voters promote use of the Military and Overseas Voter Service – 50% of the organizations contacted will promote use of the site at least once.
- A strong correlation between the number of hits to the What's On My Ballot module to the number of ballots successfully submitted 60% of number of hits to What's On My Ballot module corresponding to number of successful ballot submissions.

# Financial Management

We will pay contractor as milestones are met. The last 10% of the payment will not be paid until all work has been completed to the state's satisfaction.

# Current and Pending Project Proposal Submissions: Not Applicable

# Qualifications of Proposed Key Personnel:

Claire Wilson has served as the Director of Voter Outreach for the Office of the Minnesota Secretary of State since December 2009. In this capacity she has overseen the development of tools and messages to educate and inspire voters, as well as developed extensive training materials and conducted hundreds of trainings.

Susan Dzieduszycka-Suinat is the CEO and President of the Overseas Vote Foundation, a nonprofit, nonpartisan organization established in 2005 which developed a first-of-its-kind suite of software applications to facilitate voting by military and overseas voters.

Dr. Claire M. Smith has conducted extensive research on the behavior of military and overseas voters and the barriers they experience to casting ballots.

Please find their resumes or curricula vitae attached.

# Minnesota Proposal for On-Line FPCA and FWAB Wizard Improvements and Advances in Other Aspects of Election Absentee Systems for UOCAVA Voters

# BUDGET PROPOSAL

# a. <u>Personnel</u>

Staff to coordinate grant activities (Claire Wilson): Collaborate on development of new website functionality with consultant; conduct acceptance testing of functionality; prepare training materials for local election officials; attend trainings; encourage local officials and organizations to add or promote links to the tool by email, phone, coordinate research/evaluation and final report [an average of 1/3 time for 15 months at \$21.59 per hour]	<u>\$17,272</u>
<ul> <li><u>Fringe Benefits</u></li> <li>1/3 of Fringe Benefits for Claire Wilson for 15 months at \$7.20 per hour</li> </ul>	<u>\$4,650</u>
c. <u><b>Travel</b></u> Staff will travel to trainings sponsored by MACO (Minnesota Association of County Officers) and the League of Minnesota Cities to present to local election officials on the UOCAVA balloting process as well as providing an overview of the new features available on the Minnesota OVF website. Conference fee, including meals and lodging for each conference, based upon past and expected charges (\$480 conference fees, rental car for 4 days (\$160), plus gas (\$80), for each conference).	<u>\$1,606</u>
Staff will also attend meetings with organizations with connections to UOCAVA voters and may travel to some city clerk's offices to train them on how to better serve UOCAVA voters, if they are unable to attend the organizational trainings. (Estimate of 300 miles / 55.5 cents per mile.)	
f. <u>Contractual</u> Contract with the Overseas Vote Foundation for website development, instructional video, software license and post-election research and evaluation.	<u>\$202,727</u>
i. <u>Total Direct Charges</u>	<u>\$226,255</u>
k. <u>TOTALS</u>	<u>\$226,255</u>

# BREAKDOWN OF ESTIMATE FROM VENDOR (Overseas Vote Foundation)

# New Development

Total	\$202,727
Post Project Research Report	\$25,000
Licensing for 2012 Election Cycle	\$35,000
Hosting/Bandwidth Contribution Subtotal Flat Fees by Installation	<u>\$15,000</u> <b>\$35,000</b>
UOCAVA Voting Process Video Website Interface Design Customization	\$5,000
Flat Fee Development Items	\$15,000
What's On My Ballot Module (depends on FWAB upgrade) FPCA Transmission Modifications to FPCA Wizard End-Process Reporting Dashboard Enhancements Mailing List Signup and Integration Subtotal by Project Definition	\$10,000 \$25,000 \$12,727 <u>\$10,000</u> \$107,727
FWAB Wizard Upgrade for State/Local Races	\$50,000

# Minnesota Proposal for On-Line FPCA and FWAB Wizard Improvements and Advances in Other Aspects of Election Absentee Systems for UOCAVA Voters

#### **RETURN ON INVESTMENT ANALYSIS**

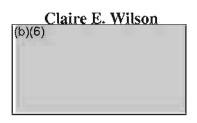
Of the approximately 91,000 eligible UOCAVA voters from the State of Minnesota, roughly 15,870 absentee ballots were sent out in 2008 according to balloting statistics and about 12,090 were returned. The low number of blank ballots sent out compared to the number of eligible overseas voters suggests that there is still considerable potential in Minnesota for increasing the participation rate. In 2008, the first year in which Minnesota offered UOCAVA voters the option of using on-line FPCA and FWAB Wizards, 7,155 voters did so. However, it appears that up to 34% of this group did not submit the resulting document. The goal of the present project is to grow ballot requests using the on-line wizard by 60% and to ensure that at least 95% of those who use the tool succeed at submitting the resulting documents. In raw numbers, this would mean that an additional 4,293 voters would use one of the Wizard tools and a total of 10,876 would use it successfully to submit the resulting documents – an increase of 6,154 voters successfully using the on-line tool.

The following ROI considerations assume the successful implementation of the above mentioned next generation FPCA and FWAB Wizards as well as new tools for voter education, voter communication and voting tracking. This significantly upgraded Minnesota Military and Overseas Voter Service solution will then be made available from multiple website access points at the local jurisdiction level, as well as from other organizations with which UOCAVA voters are likely to interact. All 87 counties of Minnesota will benefit from this single upgrade.

Our analysis below shows that with a public project of this nature, generating improved outcomes in a more cost-effective manner will create public service value, but not always a clear monetary value in the sense of return on investment.

- 1) The costs of the project, excluding the evaluation/research component are approximately \$200,000.
- 2) One can also look at the economics in terms of cost per UOCAVA vote. An average amount of about \$5 per vote is often mentioned in the literature. Calculating the cost per newly successful voter works out to be \$32.50 per voter during the first election. The ongoing cost is \$35,000 licensing fee per election cycle, which reduces the cost to \$5.69 per newly successful voter. This return on investment seems reasonable compared to other costs normally encountered in the voting process.
- 3) Of course, voters who used the site effectively in previous elections will also benefit from the upgrades, especially being able to learn about candidates in state and local level races and being provided with these candidates' names when filling out the FWAB. The cost per successful voters is \$18.39 of the original investment and \$3.22 in subsequent years – an even more reasonable return on investment.

- 4) Each county in Minnesota will be able to offer the same upgraded voting system to their UOCAVA voters at no cost. Should the county in question be located in another state, whose Secretary of State does not offer an on-line FPCA Wizard, they would indeed be faced with the \$35,000 license fees. For example if only ten of the largest counties in some other state decided they wanted to provide such a voting system, the total license royalty would be \$350,000.
- 5) The evaluation/research component of this proposal will cost \$25,000 a cost of only \$2.30 per voter who we anticipate successfully using the upgraded tools.
- 6) An added value for the State of Minnesota can then be seen in various ways or in terms of various outcomes.
  - a. An increase in the number of UOCAVA voters represents a public service or civic value, which however cannot be quantified.
  - b. The individual counties in Minnesota acquire the added value of a voting service whose market price would otherwise be \$35,000. The State of Minnesota receives a multiple of this added value through its 87 counties.
  - c. After having attained the 6,154 newly successful voters under this project the average cost per vote (\$5.69/vote, see no. 2 above) should go down due to the larger number of voters.
  - d. Added value can also be seen in this project in the form of providing benchmark cost data for other states or can be seen in the transfer of the Minnesota model to other states.
- 7) For Minnesota specifically, these added values are attained at a total cost (see budget) of about \$226,255, paid by the present research grant. A very cost-effective endeavor for the state.



#### Experience:

#### The Office of the Minnesota Secretary of State, Voter Outreach Director St. Paul, MN December 2009- present

\_Created and implemented state-wide civic engagement effort focusing on diverse communities, including veterans, students, and people with disabilities while supervising staff of 10 and overseeing all logistics for an engaged statewide presence, including appearances at over 35 fairs and festivals and hundreds of workshops encouraging voter participation in the 2010 general election. Increased the office's presence on the internet through redesign of pages, social media presence and accessible url creation.

Created curriculum and led trainings for community members, officials and staff to work with the elections system and to clarify and increase the usage of internet based tools available to voters.

\_Initiated and strengthened partnerships between the state and community and non-profit agencies through presentations, workshops, and oversight of advisory committees.

#### The Loft Literary Center, Associate Education DirectorMinneapolis, MNMay 2008-August 2009

\_ Supervised and trained over 40 teaching artists and 5 interns while managing all aspects of the Summer Youth creative writing program including catalog development, recruitment of over 500 students, and facilitation of all on-site and off-site logistics, Managed community youth partnerships including Basic Needs which brought creative writing opportunities to teen parents and

New Stories/Old Stories a classroom based curriculum designed to engage new immigrant students and their families. Created organized and facilitated inkTank, a diverse metro-wide teen literary council created in response to community feedback

regarding youth engagement within the organization. The program attracted national funding and increased youth participation by 60%.

April 2007-April 2008

\_ Coordinated all logistics related to youth programming including facilitation of meetings between community partners, management of student database and registration, directly advising students, and corresponding with teaching artists regarding contracts. pay cycles and classroom expectations.

# The Loft Literary Center, Associate Program Director Minneapolis, MN

\_Supervised the Events and Volunteer Coordinator staff position.

\_Facilitated the coordination, administration, and outreach for all Open Writing Groups working directly with the Ethiopian, Somali, Latino and LGBT communities to expand Open Groups to include those populations.

\_Collaborated with Minnesota Public Radio and the Minneapolis Star Tribune to select authors and traveled nationally to attend conferences as the Loft staff liaison for the Talking Volumes program

\_Created and curated the Third Thursday Reading series a monthly reading series featuring local Minnesota authors.

# The Loft Literary Center, <u>Events and Volunteer Coordinator</u>Minneapolis MNJuly 2005- March 2008

\_Recruited trained and maintained records for over 100 active volunteers and interns. \_Provided excellent logistical support for over 50 annual on-site and off-site events including set-up. teardown, volunteer supervision, and ticket sales

\_Wrote and distributed monthly volunteer e-newsletters.

\_Coordinated all book sales for the organization including selecting inventory. selling books at events, and reconciling orders. \_Provided open and friendly customer service at events and frequently served as the public face of the Loft at off-site events as well as at intern and volunteer fairs.

City of Lakes Nordic Ski Foundation, <a href="Program Manager">Program Manager</a>Minneapolis, MNSeptember 2003- July 2005\_ Founding member and key player in the creation of the City of Lakes Loppet and the City of Lakes Nordic Ski Foundationworking independently as the sole employee of the organization through years of large growth.September 2003- July 2005

\_Provided direct outreach and education to the Park Board, the mayor's office, neighborhood association and community partners in the forms of meetings, electronic newsletters and tabling.

\_ Assessed urban community needs for programming with educators and Park Board staff and in response created and facilitated Get Outside and Bryn Mawr Skis. These programs in collaboration with North Memorial Hospital and the MPRB and worked directly with urban youth of all ages exposing them to fitness and nutrition curriculum and experiences including Nordic skiing, canoeing and mountain biking.

# Frank Theater. Assistant to the DirectorMinneapolis, MNAugust 2003- July 2005

\_Provided excellent administrative and logistical management in support of the theatre's mission to explore ideas and concepts of social, political or cultural concern.

\_ Performed multiple daily office tasks in a fast paced and constantly changing work environment including grant research. volunteer coordination, site prep, maintaining a donor database, and assisting in the preparation and distribution of bi-annual newsletters

\_ Edited. compiled and contributed to resource guides, which contained original articles discussing and analyzing the issues explored in each new production.

\_ Collaborated with community members, actors, civic leaders and other experts to present panel discussions following some presentations in order to increase audience engagement.

#### Camp Glen Arden for Girls Program Director/Head Counselor Flat Rock, NC

June 1999- September 2001

\_Supervised 20 to 30 college age staff members in a residential camp setting

\_Developed and implemented daily activities for youth ranging in ages from 6-17.

\_Traveled extensively during the winter months in the southern United States recruiting campers as well as counselors at in-home gatherings and camp fairs.

\_Handled all administrative tasks for the camp including camper database management, communication between the office and parents, writing and distributing monthly newsletters, and keeping the office systems up to date.

#### Civic and Community Engagement:

\_Member of the League of Women Voters

\_ Minneapolis Arts Commissioner appointed 2007-2009

Kids Voting Volunteer 2008 to present

Powderhorn Park Neighborhood Association Board of Directors elected 2009, Interim Executive Director 2010

\_Bedlam Theater Board of Directors 2008

LGBT Host Home Volunteer Host 2006 to present

\_Nordic Ski Coach for various highs schools and programs 2003-2008

#### Skills:

\_Strong working knowledge of the MS word suite and familiarity with other operating systems

\_ Knowledge of and ease with most new media including social networking sites

\_Nationally Certified EMT

#### Education:

Bowdoin College, Brunswick, Maine BA- Women's Studies /Graduated with honors May 1997

Study Abroad 1995-1996 Windhoek, Namibia

Women and Development Program through the College of Global Education, Augsburg College Minneapolis, MN

Susan Dzieduszycka-Suinat		
(b)(6)		
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# Current Organizational Activity and Key Experience

#### Overseas Vote Foundation - Founder and Executive Director, 2005 - present

Ms. Dzieduszycka-Suinat is President, CEO and cofounder of Overseas Vote Foundation (OVF), <u>www.overseasvotefoundation.org</u>, a nonprofit, nonpartisan organization established in 2005 that helps overseas and military voters participate in federal elections by providing public access to interactive web services. 4.75 million individuals visited OVF's 17 voter services sites in 2008.

Ms. Dzieduszycka-Suinat works for the foundation full-time and manages OVF's strategic planning and operations including technical development and oversight of staffing, research, marketing, and alliance programs. She spearheaded the functional specification, development and launch of the complete suite of OVF Internet-based voter services available online today.

OVF's suite of software applications is the first of its kind within the U.S. and a direct outcome of Ms. Dzieduszycka-Suinat's vision for overseas and military voter services that work within today's security paradigm. Her understanding of the real and practical needs of overseas and military voters coupled with her ability to translate these needs into logical, easily accessed technology solutions is demonstrated in OVF's online presence.

- Management responsibility for OVF strategy and operations:
  - Planning, development, maintenance and support for OVF's seven integrated online voter services, reporting and backend content management systems
  - o Organizational development team building, staffing, monitoring, reporting
  - o Revenue development strategy, grant-writing and applications
  - o Assure appropriate legal review for all programs and activities
  - o Capitol Hill and stakeholder relationship development
  - o Press and promotional program development and implementation
- Key Accomplishments:
  - Built organization including Executive Board (10), Advisory Board (10), Operations Team (13), Regional Volunteer Team (35) and Alliance Partner Program (8).
  - Executed and published four post-election online voter surveys the OVF survey has become a core part of the OVF program and the largest survey of its kind
  - Developed State Hosted Systems program which licenses the OVF voter services suites to seven states, helping to establish a usability standard in UOCAVA services

The Dream Plan, Marketing Consulting – Founder and Managing Director, 1999 – current Project management organization for small business entrepreneurs Key projects include:

- Overseas Vote 2004 Project Initiative: Product Development and Worldwide Marketing Program Manager
  - Responsible for design, functionality, usability and maintenance of first-ever UOCAVA Internet-based voter registration system and supporting services

- Page 2.
- Briefed development team and supported product development for accelerated 3week timeline
- Developed project and marketing plans and executed against them to register 80,000 UOCAVA voters in the 12 weeks prior to the 2004 election.
- Staffed and launched Help Desk to support voters directly through Internet-base help desk services answering over 7,000 questions in the 12 week period
- Managed approximately 50 person team in activities including, online promotion, link program, support, help desk, reporting and technical response issues
- Responded personally to all public relations program initiatives and press interviews, and directed marketing communications efforts
- o Designed, promoted and executed events to support communications efforts
- Corporate Identity and Websites and Marketing Development for various firms including:
  - o Grace Advisory venture capitol
  - $\circ \quad Eyeshot \ Elements-graphics \ display \ system \ for \ advertising \ and \ promotion$
  - Endeavors Technology, secure peer-to-peer networking software technology marketing development in UK and German regions

# Supporting Experience

#### International Software Marketing

Thirteen years in software marketing with UNIX Leader Santa Cruz Operation (SCO)

Key roles included:

- OEM Marketing Manager, Europe, Middle East and Africa responsible for partner marketing program development and execution. Accounts included, Compaq, IBM, Olivetti, Unisys, Siemens and HP
- Director of Marketing, France and Spain responsible for entire marketing mix for regional subsidiary including press and public relations, channel marketing, training program marketing, advertising and promotional marketing activities
- North American Channel Marketing Manager distribution channel marketing program development and execution with key channel partners. Managed 5-person core team.
- Technical Marketing Manager supporting role to key sales staff and marketing development teams

Education:	Bachelor of Arts, Environmental Studies, University of California, Santa Cruz;
	Marketing Program Certification in Organizational Development, Large-Scale
	Project Management and Marketing, University of California, Berkeley
Citizenship:	American
Languages:	Native English, fluent in French and German
Other:	Lived overseas for 17 years; currently living in Munich, Germany with husband and two children

# DR. CLAIRE M. SMITH

#### (b)(6)

# RESEARCH AND ACADEMIC EXPERIENCE

# Overseas Vote Foundation, September 2008 – Present

#### Research Program Director

- Oversaw analysis of 2008 and 2010 voter and local election official post-election surveys
- Conducted original research on the impact of state UOCAVA policies on voters and developed the UOCAVA State Policy Index
- Editor and contributor to monthly research newsletter, including articles on indentifying the correct number of UOCAVA voters and evaluating available data sets
- Organized academic panels for UOCAVA Summit 2010 and Summit 2011, including theme development and speaker recruitment
- Prepared materials for research grant proposals for the Carnegie Corporation, Pew Center on the States, Federal Voting Assistance Program, and Election Assistance Commission
- Prepared testimony for congressional hearings, as well as answering questions from congressional staff regarding the impact of policy
- Answered questions from the "Voter Help Desk," communicating to voters around the world

# Carl von Ossietzky Universität, Oldenburg, Germany, 2005 - 2006 Adjunct Professor, Department of Political Science

• Classes Taught: Federalism in the U.S., Voting and Participation in the U.S., Parties and Organizations in Germany

# University of Notre Dame, South Bend, IN, 2000 - 2002 Teaching Assistant and Research Assistant

• TA for: Introduction to American Politics, Introduction to Comparative Politics

# MANUSCRIPTS

"It's in the Mail: The Military and Overseas Voting Experience," (with Judith Murray) Book manuscript in progress

"Barriers to Overseas Voting and Satisfaction with the Voting Process," (with Thad Hall) Journal article under review

#### EDUCATION

University of Notre Dame, South Bend, IN

PhD Political Science, May 2005

- First Field: Comparative Politics; Second Field: American Politics
- Subspecialties: political parties, party systems, federalism, electoral systems
- Dissertation: "Money to Burn: Party Finance and Party Organization in Federal Countries"

2

University of Notre Dame, South Bend, IN MA Political Science, January 2002

#### Radford University, Radford, VA

BA Political Science and German (magna cum laude), May 1999

#### ADDITIONAL CERTIFICATIONS AND QUALIFICATIONS

ICPSR Training Program in Quantitative Methods of Social Research, University of Michigan Summer 2000

**Cambridge Certificate in English Language Teaching to Adults (CELTA),** Hamburg, Germany July 2006

ENGLISH TEACHING EXPERIENCE Bildungswerk Cloppenburg, Cloppenburg, Germany, 2009 Consultant and English Teacher

**CNC Language Network**, Cloppenburg, Germany, 2006–2008 *Owner, English Teacher* 

inlingua Sprachschule, Oldenburg and Cloppenburg, Germany, 2004–2005 English Teacher

#### CONFERENCE PAPERS

"When No One Can Knock on Your Door: Getting Out The Vote to Overseas Americans." Presented with Paul Herrnson and Michael Hanmer. Annual Meeting of the American Political Science Association, September 2011.

*"Time to MOVE: Overseas and Military Voter State Policy Innovation."* Midwest Political Science Association Conference, April 2011.

"Overseas Voter Satisfaction in 2010." Presented with Thad Hall. Midwest Political Science Association Conference, April 2011.

"Defending Votes: Legislative Policy and Military Voting." Midwest Political Science Association Conference, April 2010.

"It's in the Mail: Surveying UOCAVA Voters and Barriers to Voting." Annual Meeting of the American Political Science Association, September 2009.

"Ask and then Ask Again: Party Finance Laws and the Rise of Fundraising in Canada and the U.S." Midwest Political Science Association Conference, April 2005.

*"The Ties that Bind: Party Finance and Party Organization in Canada and the U.S."* Northeastern Political Science Association Conference, November 2004.

"Money to Burn: Party Finance and Party Organization in Germany and Austria." Midwestern Political Science Association Conference, April 2004.

"Dimensions of Political Finance Legislation in the U.S. States: An Institutional Exploration." Midwestern Political Science Association Conference, April 2002.

"Where's the Party? Federalism and Political Finance in the United States and Germany." Annual Meeting of the American Political Science Association, August 2001.

"Democracy's Dilemma: The Role of Political Culture in Democratic Consolidation." Presented with Karrie Koesel at the Midwestern Political Science Association Conference, April 2001.

"Adapting Consociationalism: Viable Democratic Structures in Burma." International Studies Association – Midwest Conference, October 2000.

# AWARDS, SCHOLARSHIPS AND FELLOWSHIPS

Kaneb Center Outstanding Graduate Student Teacher Award, *University of Notre Dame*, April 2002 Outstanding Student of the Year, *Radford University*, 1999 Kellogg Institute Dissertation Year Fellowship, *University of Notre Dame*, 2003-2004 Friedrich Ebert Stiftung Dissertation Support, *Germany*, 2002-2003 Nanovic Institute Dissertation Fellowship, *University of Notre Dame*, 2002 - 2003 Kellogg Institute Seed Money for Graduate Students, *University of Notre Dame*, Summer 2002 Downs Summer Training Travel Grant, *University of Notre Dame*, Summer 2000 Zeta Tau Alpha Foundation Achievement Scholarship, 1999

# PROFESSIONAL MEMBERSHIPS AND SERVICE

American Political Science Association (APSA) Midwest Political Science Association (MWPSA) American Citizens Abroad (ACA), Country Contact for Americans in Germany

# ADDITIONAL SKILLS

Foreign Languages German (fluent), French (some spoken)

# REFERENCES AVAILABLE UPON REQUEST

# 1. Technical Proposal

# Catalog of Federal Domestic Assistance Number: 12.217

ВАА number: H98210-BAA-11-0001

Title of proposal:	Electronic Absentee Systems for Election Grant Applications
CAGE Code:	(b)(4)
DUNs Number:	(b)(4)

Applicant:	Mississippi Secretary of State's Office
Sub Contractors:	Election Systems and Software, Inc and Scytl USA LLC

# Mississippi Secretary of State's Office Technical contact:

Name:	Charlie Case
Address:	700 North Street
Phone:	(601) 359-1357
Fax:	(601) 359-1499
eMail	Charlie.case@sos.ms.gov

# Mississippi Secretary of State's Office Administrative/ business contact:

Name	Heath Hillman
Address:	401 Mississippi Street, Jackson MS 39205
Phone:	(601) 359-6360
Fax:	(601) 359-5019
eMail:	Heath.Hillman@sos.ms.gov

Period of Performance: September 2011 December 2016

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# 3. Technical Approach and Justification

# 3.1. Executive Summary

The Mississippi Secretary of State's Office is conscious of the challenges facing our military and overseas voters and is committed to growing and adapting our services and supporting technologies to meet their continuing needs. Mississippi's participation in the Electronic Absentee Systems for the Elections Grant initiative will allow us to continue efforts to research and evaluate innovative technologies and associated services that we believe will improve, and increase the successful level of participation within this valuable constituency group. The Mississippi Secretary of State's Office intends on addressing these challenges as well as others through the establishment of the UOCAVA System Enhancement Research (USE) Program.

The Mississippi Secretary of State's Office's key program objectives include establishing and successfully improving electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The Mississippi Secretary of State's Office also believes the efficacy of our efforts can be shared and will benefit other jurisdictions.

Considering Mississippi's background and current UOCAVA solution, we believe that working with ES&S and Scytl as well as academic researchers from Cal Tech University and the University of Utah will best address our unique requirements and result in the most effective, innovative, repeatable, documented, and sustainable solution for Mississippi. ES&S and Scytl have committed to providing a unique solution customized to fit the requirements of Mississippi.

Overall, we view the collaboration with ES&S and Scytl, and their electronic absentee balloting product – BALLOT*safe*, as the best solution to overcome and eliminate the UOCAVA barriers which now face the affected voters of Mississippi. Its robustness, flexibility, usability, and innovation will pave the way to ensuring that the number of ballots sent equals the number of ballots returned successfully addressing our goals and objectives in the following section.

# 3.2. Goals and Objectives

**3.2.1. UOCAVA System Enhancement Research (USE) Program Overview** The Mississippi Secretary of State's Office proposes a UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate in the ballot return process.

#### 3.2.2. Factors Achieved

The Mississippi Secretary of State's Office believes that our unique assets, capabilities, locations, and personnel through the UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl will foster and develop products and processes which will lessen the impediments that exist for the UOCAVA voter and will strongly address the Evaluation Factors stipulated in the FVAP EASE Grants program. For example, these factors are achievable through the deployment and use of the BALLOT*safe* solution complimented with customizations for Mississippi and related research and analysis. Our research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

# 3.2.2.1. Significance

Knowing that research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate, the USE Program will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- Voter Registration BALLOT*safe* will work in coordination with any online voter registration system and through the use of tools and procedures will provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot Request BALLOT*safe* will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT*safe* to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.
- Absentee Ballot Delivery BALLOT*safe* will utilize the ballot data from any Mississippi election management system and deliver the precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT*safe* online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.
- Absentee Ballot Marking BALLOT*safe* provides an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write-ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.
- Absentee Ballot Return and Tabulation BALLOT*safe* will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT*safe* will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assists in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately through BALLOT*safe* and through email notifications.

# 3.2.2.2. Sustainable

The Mississippi Secretary of State's Office is focused on constructed cost-effective and sustainable solutions which successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in Mississippi's assessment of sustainability shown below. The Mississippi Secretary of State's Office believes these factors are achievable through

a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. Mississippi will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the USE Program. Further information can be found in the ROI analysis provided in the Budget Proposal.
- The program and solution will be **logistically sustainable**. The USE Program will seek to realize operational efficiencies over the current processes through the BALLOT*safe* technology which will provide a lower level of effort which can be sustained even with decreasing budgets. Examples of this include easier exchange of ballot and voter information between technology systems, less effort and cost in the delivery of ballots electronically, quicker processing of returned absentee ballots, and quicker and more reliable replication of ballots upon return.
- The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform which relies on advances in cryptographic protections, advances in Java based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

By selecting the ES&S/Scytl product offering of BALLOT*safe* Mississippi is ensured of a long term commitment from a vendor who has a long history of election experience and can continue to provide updates and enhancements to the product for many years to come. Furthermore, by incorporating the cost for the USE Program through the year 2016, Mississippi is ensuring a consistent and sustaining offering to its voters and election officials. Also, utilizing multiple election cycles to gather and analyze statistics and feedback will strengthen the USE Program's findings and allow for a greater impact and significance. Specifically, the Mississippi Secretary of State's Office expects to support the following through 2016:

- Maintain BALLOT*safe* services with ES&S and Scytl through an annual Right to Use License
- Ongoing research and evaluation of BALLOT*safe* for each election cycle
- Generation of Election Analysis and Assessment Reports (EAAR) after major elections

# 3.2.2.3. Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage which provides for the broadest impact to voters and election officials. Some advanced concepts which will provide greater impact to voters are:

- Sample Ballot The sample ballot feature of BALLOT*safe* allows voters the opportunity to access the jurisdiction's sample ballot before the election. Through the election official's interface, officials are allowed to publish campaign statements from candidates as well as additional information that will be available to voters in the sample ballot.
- News Feed BALLOT*safe* provides specific news feed to voters. The news feed is provided in a sidebar of the voter web site and includes news events generated by the local election official. As desired, the news feed may also be linked to FVAP or the jurisdiction's social media feeds.

- Accessibility BALLOT *safe* has been purposefully constructed to be in compliance with the applicable web accessibility standards and to provide an intuitive interaction when being understood or controlled through personal assistive devices. Below are the usability and accessibility standards which BALLOT *safe* follows:
  - Web Content Accessibility Guidelines (WCAG) 2.0
  - o User Agent Accessibility Guidelines (UAAG) 1.0
  - Section 508 of the US Rehabilitation Act, Web-based Intranet and Internet Information and Applications (1194.22)
  - NIST Accessibility and Usability Considerations of Remote Voting Systems, Draft – June 28, 2010

# 3.2.2.4. Strategic approach

The Mississippi Secretary of State's Office has presented a credible hypothesis and will provide a well-defined and appropriate plan to test that hypothesis. The plan is further defined in 3.3 Schedule and Milestones and the Management Approach, Section 4. We believe the hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

# 3.2.2.5. Innovation

The USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The Mississippi Secretary of State's Office believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of BALLOT*safe*:

- Security. The groundbreaking cryptographic protocols inherent in BALLOT*safe* provide elections with the highest levels of security, in terms of voter's privacy, voter verifiability, election integrity, system availability, and access control. BALLOT*safe* provides security through the use of a physically secure data center, complete redundancy of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.
- Ballot Choice Barcode. BALLOT*safe* provides accurate and reliable automated remake of returned ballots with its ballot choice barcode feature. Using a barcode on a ballot generated through the voter's onscreen marking wizard, the ballot choice barcode can replicate the voter's selections onto the local jurisdictions optical scan readable ballot.
- Social Media Interaction. BALLOT*safe* provides mechanisms for the voter to interact with social media content (Facebook, Twitter, etc) through BALLOT*safe*. This is done through multiple concepts such as a Newsfeed and interactive sample ballots.
- FPCA barcode. BALLOT*safe* provides a feature whereby the voter can complete an FPCA through the BALLOT*safe* FPCA wizard with an absentee data barcode. This barcode provides for the automated exchange of the voter's information from the FPCA through an FPCA import module, and into the local voter registration processing queue. This reduces the need to manually enter voter information.
- UOCAVA community forum. With BALLOT*safe*, ES&S and Scytl have established and will maintain a pipeline of ideas, techniques and best practices of election officials and

their services for UOCAVA voters. This is done through a secure online data repository and message board.

# 3.2.2.6. Scalability

The USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGi. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of:

- Usage increases in the number of voters and number of ballots styles it can support;
- Impact changes to and increases in the types of voters and their requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality which it employs.

Furthermore, our agreement with ES&S and Scytl is to obtain all of the existing features and functionality of BALLOT*safe* regardless of our current need. With the ability to access and use features on an as needed basis thereafter, we are able to adjust our growth and use of the product in such a way that we can meet the demands of tomorrow as easily as the demands of today.

# 3.2.2.7. Collaborative

The Mississippi Secretary of State's Office has designed the USE Program to be a collaborative program involving key election technology providers – ES&S and Scytl, reputable academic researchers from Cal Tech University and University of Utah, and other election jurisdictions through a data and experience sharing portal in BALLOT*safe*. This consortium of election officials, election service and system providers, and researchers will collaborate together to address and improve the absentee voting process. To do this, we will use a six-sigma approach to improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current processes based upon data analysis to create an improved, future state process.
- *Control* the future state process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

# 3.2.2.8. Cost Benefit Analysis

Each major component of BALLOT*safe* can separately, or in total, be evaluated for ROI against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

#### 3.2.3. Security Measures

The USE Program will provide administrative, technical, and physical controls to protect voter personal identifying information (Pll) and sensitive election material. At a minimum, **administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by ES&S and Scytl through the BALLOT*safe* solution. First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls and where it is under 24/7 physical and application monitoring to ensure the security, health and integrity of the system around the clock. The infrastructure, including all hardware, software, and security controls are also monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software to be free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to seamlessly verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect voters' identifying information from ever being associated with their ballot selections.

# 3.3. Schedule and Milestones

The Mississippi Secretary of State's Office has identified the following as the initial schedule assuming an award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

# 1. Initiation and Planning Phase

Start Date: August 1, 2011 Duration: 45 days

The initiation and planning phase will initialize the project and introduce all stakeholders. During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown structure, statement of work with each subcontractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

- a) Completion of Project Management Plan
- b) Completion of Quality Management Plan

# 2. Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

With the program stakeholders, this phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success in this area. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution amongst the stakeholders. The approach will lead into a detailed requirements gathering and specification development effort to capture the analysis into quantifiable measures necessary to improve the UOCAVA voting process. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of these will be addressed directly through BALLOT*safe* while others will be addressed through policy changes.

Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization

# 3. Technology Modernization

Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for the customization, activation, and outreach efforts in preparation for the first election and continuously through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase 2, BALLOT*safe* and other systems will be customized to address Mississippi's requirements such that UOCAVA voters are best supported.
- Voter Education During this phase, voters will be notified of the modernization and how it impacts them through multiple communication channels.
- Integration and Testing The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters.

Milestones:

- a) Technology Modernization Completion Presidential Preference Primary
- b) Technology Modernization Completion Primary Election
- c) Technology Modernization Completion General Election

# 4. Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the USE Program to enhance the technology and services provided to UOCAVA voters. Each progressive election will include greater enhancements to achieve the incremental goals established in phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan.

Milestones:

- a) Presidential Preference Primary Completion
- b) Completion of Election Analysis and Assessment Report Presidential Preference Primary
- c) Primary Election Completion
- d) Completion of Election Analysis and Assessment Report Primary Election
- e) General Election Completion
- f) Completion of Election Analysis and Assessment Report General Election

# 5. Final Analysis and Reporting

#### Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase will collect the relevant data from the 2012 General Election(s) as well as reports and data from the previous elections. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of USE Program Final Report

# 3.4. Reports

# 1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Mississippi Secretary of State's Office will prepare quarterly programmatic and financial progress reports. For the purposes of the USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

The financial progress report will provided:

• Will be provided in accordance with project requirements and schedule.

The following programmatic and financial progress reports will be prepared:

- a. Fourth Quarter 2011 Programmatic and Financial Progress Reports
- b. First Quarter 2012 Programmatic and Financial Progress Reports
- c. Second Quarter 2012 Programmatic and Financial Progress Reports
- d. Third Quarter 2012 Programmatic and Financial Progress Reports
- e. Fourth Quarter 2012 Programmatic and Financial Progress Reports
- f. First Quarter 2013 Programmatic and Financial Progress Reports

# 2. Data collection points reports

There will be several data collection point reports prepared throughout the USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned

- Types and number of problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

- a. Presidential Preference Primary EAAR
- b. Primary Election EAAR
- c. General Election EAAR (will be incorporated in the Final Report)

# 3. Final Report

The USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

#### 4. Management Approach

# 4.1. Introduction

ES&S and Scytl have formed a strategic alliance to provide the necessary technology and tools to allow Mississippi to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. The Mississippi Secretary of State's Office intends on using an organized project management methodology with ES&S and Scytl to achieve these goals in a sustainable and organized way. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, local election personnel, and election officials from other jurisdictions. This cooperative of the Mississippi Secretary of State's Office, election officials, election service and system providers, and researchers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved, future state process.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

# 4.2. Project Organization

# 4.2.1. Project Director

The Mississippi Secretary of State's Office will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

# 4.2.2. Project Steering Committee

The project steering committee will be comprised of the project director, project manager, key personnel from ES&S and Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with the strategic goals and objectives and key factors in Section 4.4.

#### 4.2.3. Project Manager

Election Systems and Software (ES&S) will serve as project manager for the USE Program. ES&S maintains a global team of PM1 certified Project Management Professionals and Elections Experts with specific experience in election solution implementations. The ES&S Project Management Office (PMO) has over 285 years of combined elections experience, which has allowed the PMO to develop election specific best practices to accommodate the unique and challenging aspects of the election industry. This team of professionals is trained to manage projects pursuant to the Project Management Institute's project management principles. Each Project Manager is supported by a team of Technical Engineers, Subject Matter Experts, and Support Specialists to assure that each aspect of the project is managed effectively and efficiently.

# 4.2.4. Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project manager and will be responsible for data collection and analysis. The research team will form hypotheses and will report findings. All research products will be validated with the steering committee which will prepare the conclusions.

# 4.3. Project Resources

# 4.3.1. ES&S

ES&S and Scytl will work collaboratively to leverage the strengths of each company for the purpose of installing and supporting the BALLOT*safe* system. Specifically, ES&S will provide development expertise in the areas of system integration for voter registration and election management systems. The ES&S training department will provide instructional information and facilitate training activities. The ES&S support group will install and coordinate the usage of BALLOT*safe* with Scytl subject matter experts. The ES&S Helpdesk will provide 1<sup>st</sup> and 2<sup>nd</sup> tier level support to the State and local election officials and ES&S and Scytl will work jointly to provide any 3<sup>rd</sup> tier level support required.

# 4.3.2. Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the USE Program, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department.

# 4.3.3. Academic Researchers

The USE Program will utilize outside academic researchers – Michael Alvarez and Thad Hall – for some of the research and analysis efforts. In their academic careers, they have focused on elections, voting behavior, election technology, and research methodologies. The Mississippi Secretary of State's Office believes that the addition of these experts will enhance the quality of the program's research and assist in tackling some of the prevalent challenges facing democratic elections.

# 4.4. Project Strategic Goals

The UOCAVA System Enhancement Research (USE) Program will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

# **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.
- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), Mississippi will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

**<u>Plan</u>:** Implement tools and services provided by ES&S and Scytl in a phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving Mississippi's capabilities to support our overseas voter population.

# 4.5. Research Methodology

The USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

# 4.5.1. Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis, considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

# 4.5.2. Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies to better meet their needs. As a starting point, the Mississippi Secretary of State's Office knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens who are located in remote locations. In addition, although active duty military members complete Federal Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, Mississippi citizens are likely to experience widely divergent voting experiences depending upon their country of residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries also varies widely. The aforementioned are but a few of the well known challenges faced by our overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

# 4.5.3. Technology Enhancements

While Mississippi is already aware of many areas where BALLOT*safe* can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of Mississippi's voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT <i>safe</i> will work in coordination with online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on time.
Absentee Ballot Request	BALLOT <i>safe</i> will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT <i>safe</i> to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.	Traditional postal delivery and return of ballot requests introduce unpredictable delays into the process which delay future steps. Voters can often forget when a ballot request is due for an election or may complete it incorrectly.	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them correctly.
Absentee Ballot Delivery	BALLOT <i>safe</i> will provide online ballot delivery of precinet specific ballots via its secure and accessible online portal.	Traditional postal delivery of ballots is lengthy and	The electronic delivery of ballots through a secure

	Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT <i>safe</i> online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	unpredictable. It is also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	internet based portal will provide consistent access to eligible voters which will improve the successful completion and return rates of ballots.
Absentee Ballot Marking	BALLOT <i>safe</i> will provide an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write- ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.	Some absentee voters have difficulty understanding ballot content and completing ballots correctly. Voters with disabilities face significant problems marking paper ballots. Furthermore, manual duplication is often required of ballots which are returned. When a voter uses the onscreen marking wizard, BALLOT <i>safe</i> provides a mechanism for the automated replication onto an optical scan ballot.	Voters who use an intuitive and accessible onsereen marking interface will have a higher probability of completing the ballot correctly which will increase the number of ballots returned successfully. The ballot replication mechanism with BALLOT <i>safe</i> will provide greater operational efficiencies in the return processing of the ballot.
Absentee Ballot Return and Tabulation	BALLOTsafe will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOTsafe will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assist in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately upon processing through BALLOTsafe and through email notifications.	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their ballot is returned and if it was accepted. Furthermore, without automated interfaces, there are delays in the processing and tracking of ballots.	The use of an online electronic portal to provide correct return information and return documents will improve the ease and rate of successful return of ballots. Automated interfaces and the use of barcodes will shorten the processing delay and shorten the time it takes to provide tracking information to voters.

## 4.6. Performance Management

# 4.6.1. Performance Management Approach

To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the USE Program goal and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- To manage the project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 4.4. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

#### 4.6.2. Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success
Improve the rate of completed UOCAVA voting transactions from registration to ballot return.	At each step in the absentee voting process, the number of voters who complete each phase of the process increases. This will be measured on a per election basis, comparing previous election of that type to the current election. For example, the 2012 Primary Election will be compared with the 2008 Primary Election.
Increase the percentage of UOCAVA voters participating and voting in Federal elections.	For each Federal Election, there is an increase in percentage of UOCAVA voters who participate in at least one portion of the voting process.
Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.	Based on a comparison of the average failure rates for each stage in the absentee voting process with the failure rates of the current election, there is a decrease in the failure rate in each stage.
Provide tools and services that can	The solution provided supports the legal, procedural, and

benefit other jurisdictions.	technical requirements of other jurisdictions.
Provide security measures to protect users' personal identifying information and any transmitted election material.	Data collected through system audit logs, internal auditing, and interactions with voters does not indicate that any user's personal identifying information or sensitive election material was compromised in any way.
Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives	Reports provided through the USE Program include reliable data, complete analysis, and discerning conclusions for each of the objectives above.

#### 4.7. Risk Management

# 4.7.1. Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- Risk identification. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis**. Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- **Commence at the Project planning stage**, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

- **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.
- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - The risk owner who is the person responsible for managing the response plan
  - o The risk response strategy that will be used
  - The description of the mitigation or contingency plan
  - o Any stakeholders impacted by the risk
  - The cost of the risk response
- **Risk Mitigation plans**: This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

# 4.7.2. Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated against.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- e. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

# 4.8. Current and pending project proposal submissions

Not Applicable.

Title of proposal and summary:	NA	
Source and amount of funding:	NA	
Percentage of effort devoted to each pr	oject	NA
Identity of prime applicant:		NA
List of subcontractors:		NA

Technical contact:

Name:	XXX
Address:	XXX
Phone:	XXX
Fax:	XXX
eMail:	XXX

Period of Performance:	XXX
Award period:	XXX
Award amount:	XXX
Man months:	XXX

Relationship (if any) with the current request: XXX

## 4.9. Qualifications

## 4.9.1. Introduction

To assist personnel from Mississippi, the Mississippi Secretary of State's Office has selected ES&S and Scytl to provide operational, research and technology support with their key personnel list below. Mississippi believes ES&S and Scytl have the best product and personnel to provide the services and support sought for the EASE grant execution in Mississippi.

# 4.9.2. Key personnel

# Heath Hillman (Assistance Secretary of State for Elections)

- 1.5 years of service as Assistant SOS for elections
- Private practice for 8 years
- Law Degree from University of Maryland

# Karana Carroll (Deputy Chief of Staff)

- 12 years of service with the SOS office
- MBA from University of Alabama

#### Elizabeth Bolin (Senior Attorney)

- 3 years of service as Senior Attorney with the SOS office
- Law Degree from Mississippi College

#### Cindy Crocker (IT Director)

- 22 years of service with the Mississippi IT Department
- BS Degree in Computer Science

# Charlie Case (Integrated Election System Director)

- 6 years of service with IT Department
- Various IT certifications with Associates degree from Hinds

#### Bill Lowe (ES&S Project Manager)

- 4.5 years of service as Project Manager with election vendor for State of Mississippi
- 8 years of Tier 1 manufacturing experience
- EE Engineering Degree with minor in Computer Technology

# Thomas H. Ferguson, National Sales Director, Electronic Ballot Access, Election Systems and Software

Thomas Ferguson is currently serving as the National Sales Director, Electronic Ballot Access and an Election Product Specialist for ES&S. He has approximately ten years of government management experience as the Director of Elections for the Office of the Secretary of the State of Connecticut. Prior to taking the position with the state, Mr. Ferguson served as the Registrar of Voters for the Town of Manchester, Connecticut for six years. Additionally, he is a pastpresident of the National Association of State Election Directors. During his tenure with the Secretary of the State, he was the Project Manager for the development and implementation of the Statewide, Centralized Voter Registration System. Mr. Ferguson was also the Project Manager for the development of Connecticut's browser based Campaign Finance Information System, as well as systems that house and manage the Connecticut Statement of Vote, Annual Election Calendar and the certification criteria for Connecticut's chief polling place officials. He has an extensive elections and project management background from his 25 years of work and experience in local and state elections.

# Peter M Zelechoski, MBA-TM, CISSP, CISA, Election Systems & Software

Mr. Zelechoski has 9 years experience in the voting systems business sector with experience at county and state levels (US) and in international countries defining, customizing, and deploying voting systems, and operating voting systems/machines in elections. Mr. Zelechoski has experience as president, board, committee chair and committee member levels for large and small non-profit and not-for-profit groups. With 30+ years experience in computer systems, he has hands-on experience with data interchange in financial, business, and election applications and as an architect for computer systems integration across platforms, networks, security boundaries. Mr. Zelechoski is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), a member of IEEE P1622 Voting Systems Electronic Data Interchange standards workgroup, and a member OASIS EML task group (Election Markup Language). He has a Master of Business Administration in Technology Management.

# Paul Miller, Business Development Manager, Scytl USA, LLC

Mr. Paul A. Miller, a former State and County Elections Official, is a highly qualified Project Manager, Elections Subject Matter Expert, and Technologist with more than 30 years'+ experience in technology and software development industries, foremost being in State and County Government Elections. He has been called upon by the EAC time and again, to provide Election Subject Matter expertise to panels, workshops, working committees, and testimony before the EAC commissioners. He was selected by the National Association of State Elections Directors (NASED) to serve as one of two NASED representatives to the Technical Guideline Development Committee (TGDC). The TGDC is a small panel of national experts tasked to work with the EAC and NIST to draft next generation voting systems standards.

Mr. Miller's election related experience has made him a nationally known subject matter expert within the elections community. Beginning with his tenure as Assistant Elections Superintendent-Data Processing in King County to Senior Technology/Policy Analyst at the Washington Secretary of State, he has gained a comprehensive knowledge of County Administrative Processes, Election Processes and Procedures, State and local Voter Registration Databases, Voting Systems, State Certification procedures, the Federal Testing and Certification Processes, Voluntary Voting System Guidelines and Federal and State Election Statutes. He has led innovative changes to county elections processes, most notably the most extensive use of its day in the nation of high-speed scanning to sort, process, and validate signatures in the absentee return ballot processes. He led the state's efforts to completely modernize its petition/signature checking processes, upgrade its voting system certification program in a high-visibility environment, and develop the state's HAVA- compliant Voter Registration System.

After being the state project manager for the 2010 implementation of U.S. Federal Voting Assistance Program's Electronic Voting System Wizard project in Washington state, Mr. Miller joined Scytl as Business Development Manager in April 2011.

# Aaron Wilson, Project Engineer, Scytl USA, LLC

Mr. Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

#### Thad E. Hall, Ph.D. (Researcher)

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* (Princeton University Press) and *Abortion Politics in Congress: Strategic Incrementalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

# R. Michael Alvarez, Ph.D (Researcher)

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, *New Faces, New Voices: The Hispanic Electorate in America*) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific

American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal *Political Analysis*, and co-director of the Caltech/MIT Voting Technology Project.

# State of Mississippi Budget Information Non-Construction Program

Under the USE program, BALLOT*safe* will be offered by ES&S-SCYTL as a software as a service (SaaS) model in order to facilitate its adoption and use by jurisdictions across the United States and its Territories in a cost effective manner. This model has several price components: Activation and Implementation Services Fees, Annual Right-To-Use License and Service Fees during the Research Program, and ongoing Right-To-Use License Fees and Per Ballot Processing Fees after the Research Program is completed.

For the initial Research Program, which includes the 2012 Election Cycle, the following deliverables will be provided:

Activation and Implementation Services System Activation & Initial configuration	Software License and Services - 2012 Right-to-use license of BALLOT <i>safe</i>
Definition of specifications	Election Specific System Configuration
Customization to meet specifications	Secure Primary and Backup Hosting
Installation and deployment	Help-desk / Technical Support
Integration with existing EMS	Enhancements, New Releases & Upgrades
Integration with existing VR	Account Management
Training & Documentation	
Project management	

#### Budget for the participation in the USE Research Program

The budget for the State of Mississippi to participate in the USE Research Program is \$212,000.00, as set forth in the table below. This budgetary quote includes the Activation and Implementation Services and Annual Right-To-Use License and Service Fees through the 2012 General Election Year.

Description	Fee
Activation and Implementation Services:	
Activation, Configuration, Customization, and Documentation	\$113,635.00
System Integration	\$50,000.00
Acceptance Testing	\$10,000.00
Project Management and Research Support	\$15,750.00
Training	\$3,150.00
Total Activation and Implementation Services	\$192,535.00
<b>Software License and Services – 2012:</b> Right-to-use license of BALLOT <i>safe</i> , Secure	
Primary and Backup Hosting, Help Desk/Technical Support, Software Maintenance and Support for all elections through Nov 2012	\$49,590.00
Account Management and Research Data Support	\$15,375.00
Election Specific System Configuration	\$7,500.00
Total Annual License Fees and Services - 2012	\$72,465.00
Less: Discount	(\$53,000.00)
Total Fees	\$212,000.00

# **Ongoing Fees**

Following the initial phase of the Research Program, Ballot*Safe* is available for use and research in supporting UOCAVA voters, as well as disabled voters and absentee-by-mail voters. The ongoing Annual Software License and Service Fees will consist of a fixed price per year and a per ballot processing/duplication fee as follows.

Description	UOM	2013	2014	2015	2016
Annual Right-To-Use Software License	License	\$65,340.00	\$68,610.00	\$68,610.00	\$72,044.00
					1
Outgoing Ballot Processing Fee	Each	\$1.00	\$1,05	\$1.05	\$1,10
Incoming Ballot Processing Fee	Each	\$0.25	\$0,26	\$0,26	\$0,27
Automatic Ballot Duplication Fee	Each	\$0,75	\$0,79	\$0,79	\$0,83

#### The above fees entitle the State to the following:

- Right-To-Use License
- Upgrades and Enhancements from Product Roadmap and Bug Fixes
- Help Desk & Troubleshooting Support
- Primary and Backup Secure Hosting
- Research Data and Support
- Account Management

Should the State of Mississippi require additional Training, Election Specific System Configuration, or other Services not included in the Ongoing Fees table above, those services will be subject to a separate charge to be agreed to by the parties.

#### **Total Fixed Fees**

The total fixed fees budget (excluding Ballot Processing/Duplication Fees) to the State of Mississippi for participation in the USE research program through the 2016 General Election Year is \$486,604.00.

#### Return on Investment Analysis for the USE Research Program

Based on initial analysis of information gathered, Mississippi expects over a 5 year period, to see a 20% return on investment. The enhancements and research being provided and conducted through the UOCAVA Systems Enhancement Research Program, cost and time savings will be realized for multiple costs items associated with the absentee voting process. **Overall, the easier process and technology of the USE Program will enfranchise more voters such that the number of ballots processed and registrations will increase.** 

• Return on Investment – postal mail of ballots

Currently, ballots delivered by postal mail incur per-election personnel and capital expenditures to print, package, and mail the ballots. By providing electronic ballot

delivery, established in a onetime development and integration effort, there will be less costs over time as the cost to maintain the initial expenditure is much less than the perelection cost now incurred to print and mail ballots to the UOCAVA voters.

• Return on Investment – email of ballots

To support the email of ballots, it requires a significant per-election time investment from an IT official in the office to attach PDFs and address each email. By providing electronic ballot delivery via an online website, established in a onetime development and integration effort, there will be fewer costs over time as the cost to maintain the initial expenditure is much less than the per-election cost now incurred to print and mail ballots to the UOCAVA voters.

• Return on Investment – duplication of ballots

Currently, ballots returned by voters who receive them by email or fax must be duplicated manually. This normally takes 2 or more people at least 5 - 15 minutes to duplicate one ballot. This accounts for the time it takes to duplicate and verify correct duplication in front of witnesses. The automated ballot duplication provided by BALLOT*safe* provides an automated work flow which reduces the number of people and time it takes to duplicate a ballot. This process also reduces the errors which are introduced and expedites the accounting which must be done. This saves time and money invested in employing many permanent and temporary election workers to perform this task.

• Return on Investment – communication with voters

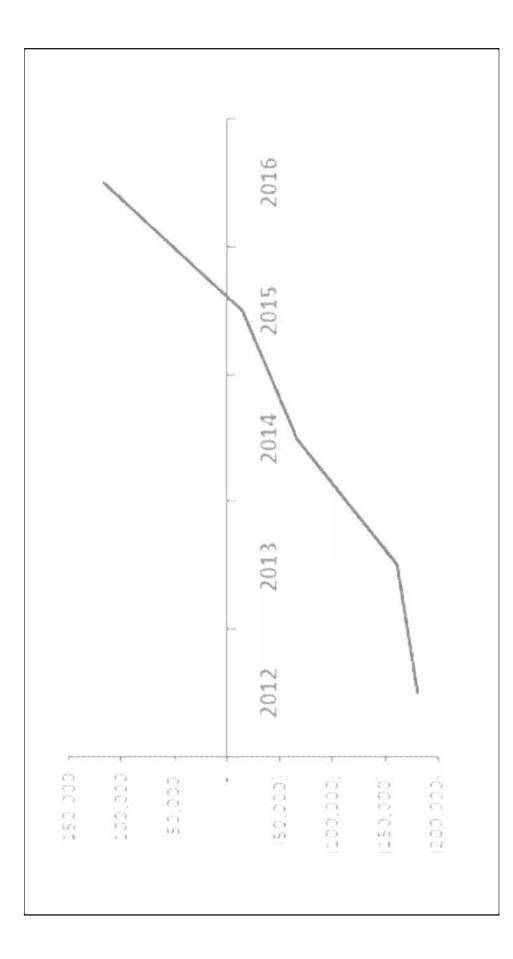
The online presence of BALLOT*safe* will provide UOCAVA voters the ability to retrieve jurisdiction specific communication in the form of messages, online chat, and help menus. This will reduce the amount of support required by dedicated personnel and, thereby, reduce per-election cost associated with providing assistance.

These cost and time savings will add up to a positive return on investment. Specifically, the jurisdiction will save more money over time, by reducing per-election costs, than the amount of the initial investment through the grant. The research and analysis conducting during the grant period will collect real statistics and provide a more quantitative ROI analysis based on improved data collection policies and procedures.

# Initial Return on Investment Calculation

1	28075	5,015	2014	294	71.5
BUDGET - actual costing	281,995	192,484	290,353	198,322	299.213
a) Direct Labor	209,207	141,751	213,412	144,601	217,701
1. Registration process	51 552	35,597	52 588	36,313	53,645
Open mail, print email and data entry	31,563	21,252	32,197	21,679	32,844
Resolve an inquiry of a voter calling to the Election Office	18,938	12,751	19,318	13,008	19,706
Contact a voter when he/she has provided an invalid registration address, mail or email	1,052	1,594	1,073	1,626	1,095
2. Ballot request process	94,688	63,756	96,591	65,038	98,532
Voter requests the ballot via email or fax.	18,938	12,751	19,318	13,008	19,705
Update voter record with date of request for tracking purposes	4,734	3,188	4,830	3,252	4,927
Lookup correct ballot style for voter	4,734	3,188	4,830	3,252	4,927
Locate correct ballot file for voter	4,734	3,188	4,830	3,252	4,927
Sends ballot file or location of ballot file to voter via email or fax	4,734	3,188	4,830	3,252	4,927
Vuter requests the ballot via mail	75,750	51,005	77,273	52,030	78,826
Locate correct scannable ballot	18,938	12,751	19,318	13,008	19,706
Insert correct ballot with envelopes into mailer package	18,938	12,751	19,318	13,008	19,706
Add postage and drop mailer package in the mail	18,938	12,751	19,318	13,008	19,706
Update voter record with date of mailing for tracking purposes	18,938	12,751	19,318	13,008	19,706
3. Ballot leturn process	62,967	42,398	64,233	43,250	65,524
b) Administrative and Clerical labor	15,691	10.631	16,006	10,845	16.328
<ul> <li>c) Fringe benefits and Indirect Costs</li> </ul>	31,381	21,263	32,012	21,690	32,655
d) Travel	14 C		7		-
e) Subcontracts/sub awards	·.				
f) Consultants	5. 5		v		N
g) Materials and Supplies	23.861	16,870	26,836	18,973	30,181
h) Other direct costs	1,856	1,968	2,087	2,214	2,347
BUDGET - new costing	462,588	173,775	195,016	145,952	167,692
a) Direct Labor	125,524	70,876	85,365	50,610	65,310
1 Registration process	30,931	17,799	21 035	12,709	16,094
2. Ballot request process	56,813	31,878	38,636	22,763	29.560
3 Ballot return process	37,780	21,199	25,693	15,138	19,657
Print email ballot image to paper	5,965	3,347	4,057	2,390	3,104
Open envelopes	3,977	2,231	2,705	1,593	2,069

	Check signature to authenticate voter	5,965	3,347	4,057	2,390	3,104
	Update voter record with return date for tracking purposes	-	-	-	-	-
	Locate/obtain correct scannable ballot if returned ballot is not scannable (i.e. returned ballot was printed on voter's printer, or returned via fax or	5.005	0.077		0.000	
	email.)	5,965	3,347	4,057	2,390	3,104
	Duplicate voter choices to scannable ballot	9,942	5,579	6,761	3,984	5,173
	Compare duplicated scannable ballot with original document of voter choices to ensure no errors made.	5,965	3,347	4,057	2,390	3,104
b)	Administrative and Clerical labor	18,829	10,631	12,805	7,592	9,797
c)	Fringe benefits and Indirect Costs	18,329	10,631	12,805	7,592	9,797
d	Travel					
e)	Subcontracts/sub awards					
ŋ	Consultants	283,977	72,217	72,473	72,743	73,030
	Initial set up	212,000	-		-	
	Annual subscription	68.000	68,000	68,000	68,000	68.000
	Ballot processing	3,977	4,217	4.473	4 743	5,030
g)	Materials and Supplies	14,317	8,435	10,734	6,641	9,054
	Ballots	7,158	4,217	5,367	3,320	4,527
	Stamps and other mailing costs	7,158	4,217	5,367	3,320	4,527
	Other office material and supplies	-	-	-	-	-
b	Other direct costs	1,114	984	835	775	704
	Equipment	636	562	477	443	402
	Report and publication	477	422	358	332	302
ost	reduction	(180,593)	18,709	95,337	52,370	131,520
		-64%	10%	33%	26%	44%
ccu	mulated	(180,593)	(161,884)	(66,548)	(14,177)	117,343
101	Return on Investment Over 5 years) =	20%				



#### Technical Proposal

Using Social Networking and Smartphones to Support UOCAVA Voters Mobile County, Alabama

- 1 CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 12.217
- 2 BAA NUMBER: H98210-BAA-11-0001
- 3 TITLE OF PROPOSAL: USING SOCIAL NETWORKING AND SMARTPHONES TO SUPPORT UOCAVA VOTERS
- 4 CAGE CODE AND DUNS NUMBER: 3TAQ2, 0406715210000
- 5 LEAD APPLICANT: MOBILE COUNTY COMMISSION 205 Government Street Eighth Floor, South Tower Mobile, Alabama 36644-1801
- 5.1 SUBCONTRACTOR: UNIVERSITY OF SOUTH ALABAMA University of South Alabama 307 University Blvd, North Mobile, Alabama 36688 CAGE Code and DUNS Number: (b)(4) and (b)(4)

#### 5.2 SUBCONTRACTOR: KEY BUSINESS TECHNOLOGIES, LLC

- Key Business Technologies, LLC 6621 Lubarrett Way South Mobile, AL 36695 CAGE Code and DUNS Number:
- 5.3 SUBCONTRACTOR: KONNECH, INC. Konnech, Inc.
   4211 Okemos Road, Suite 2 & 3 Okemos, MI 48864
   CAGE Code and DUNS Number:

# 6 TECHNICAL CONTACT

Ms. Roxanne Dyess Mobile County Probate Court 151 Government Street Mobile, Alabama 36602 rdyess@probate.mobilecountyal.gov 251,574.6080

#### 7 ADMINISTRATIVE/ BUSINESS CONTACT

Ms. Michelle Herman Mobile County Commission County Administration, Director of Finance 205 Government St South Tower, Eight Floor Mobile, Alabama 36644 mherman@mobile-county.net 251,574-5588

#### 8 PROPOSED PERIOD OF PERFORMANCE

August 1, 2011 through December 15, 2012

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# **Technical Proposal**

#### Using Social Networking to Support UOCAVA Voters

#### Mobile County, Alabama

#### **1** INTRODUCTION

Social networking exploded into the Internet culture through applications such as Facebook, MySpace, LinkedIn, and hundreds of other personal networking sites. We propose to leverage the power of social networks to drive UOCAVA voters, particularly military voters, to web pages that inform and direct them regarding actions that THEY must take in order to cast their ballot correctly and on time.

While web resources can provide valuable elections information to proactive voters, as a "pull" resource, information on web pages is only useful if voters visit the appropriate pages. Postal notification can remind voters regarding their required actions and can provide the information they need to access the correct web page. However, the paper notification may be misplaced, lost, or simply not available when it is needed.

In this project, we propose to leverage social networking, specifically Facebook, to improve the UOCAVA voting experience and response through "push" technology so that every military voter that desires to vote has the best opportunity possible to cast their ballot for candidates of their choice. If successful, this technology will easily and efficiently transition to other jurisdictions, small and large, offering immense potential for improvement in the opportunity and voting experience of UOCAVA voters.

#### 2 TECHNICAL APPROACH AND JUSTIFICATION

#### 2.1 Executive Summary

As has been true throughout US history, military members are predominantly young people. Today, they are also the most technology-aware in history. The Facebook impact in this demographic is profound. With an average of 500 "friends" per person, the new recruit is connected to a cyber-world in a way that is unprecedented. Not only are these young adults maintaining many relationships with people they have never met, but these cyber relationships are perceived as normal to them. Utilizing Facebook to improve the voting opportunity and experience for military and overseas voters is conspicuous in its absence.

As a microcosm of society, we may reasonably expect that the vast majority of military members are Facebook members and they regularly access and utilize the capabilities of their social networking sites. In this project, we leverage the Facebook factor to help military and other UOCAVA voters to:

- a. Get them the information they need, when they need it and
- b. Prompt them to take the necessary actions at the right time

To accomplish our bold objectives, we engage two innovative software applications that we use to communicate with voters, one of which is web-based and the other targets smart phone technology. Collectively, these two tools allow us to prompt UOCAVA voters when electoral action is appropriate or necessary and to guide them through the steps they must take to ensure that their ballots are cast and their votes are counted.

# 2.2 Goals and Objectives

We propose to improve the UOCAVA voting opportunity and experience by utilizing popular new technologies to accomplish the three important objectives of increasing the UOCAVA ballot request and return percentages and the number of registered UOCAVA voters.

2.2.1 Increase the number of registered UOCAVA voters that request ballots

An impediment to UOCAVA voters is that, because they are disbursed around the world, it is difficult to prompt military and overseas voters to accomplish required electoral actions. This situation is further complicated because the action period is well ahead of that required of resident voters.

We propose to utilize social network applications to increase the notification percentage and decrease the delivery time for registration and ballot requests and blank ballot delivery by improving the technology embedded into the Mobile County Probate Court's Election Center Web Page technology. This new technology will operate through a web application (app) that is downloaded onto the voter's handheld mobile device. This app will remind the voter when to request a ballot and then combine with other technology to prompt the voter through the rest of the voting process.

We seek a 20% increase in the number of UOCAVA voters that are registered in Mobile County. Recognizing that registration counts routinely vary according to the time of year and the election cycle, we will measure success of this objective monthly against historical data from the past two presidential election cycles.

#### 2.2.2 Increase the percentage of returned to requested ballots among UOCAVA voters

We will implement products that leverage technologies that are popular among military voters overseas to increase the number of ballots returned. We will employ current social networking tools, such as Facebook, to remind the voter that the ballot has been electronically sent, to remind them of the requirements to complete the electoral process, and the deadlines required to complete the process. In essence, an app will place the reminder in sight on the social network. Engaging the app will walk the voter through the voting process specific to his/her voting precinct and will include reminders regarding ballot return deadlines.

We seek a 20% increase in the percent of ballots requested by military and overseas voters in Mobile County and measure the success of this objective against historical data.

#### 2.2.3 Increase the number of registered UOCAVA voters.

One approach to increasing the number of registered UOCAVA voters is to engage citizens as they enter UOCAVA status. In this project, we will reach out to Mobile County citizens who are entering the military through the recruiting organizations that enroll them into military service. We will utilize this recruiting information to contact Mobile County citizens and invite them to install apps that will use social networking and mobile device technology to prompt voters to register, request a ballot, and remotely complete the electoral process.

Our second approach to increase the number of registered Mobile County UOCAVA voters is to connect with voters whose registration information may change or be lost due to relocation or transfer. To increase/improve the notification to election officials of changes of address by reaching out to the sources of new recruits, and to obtain the preferred contact technology utilized. These could include email, Facebook, or any number of handheld devices capable of texting. We will employ various technologies to prompt, remind, and assist military and overseas voters in registering to vote.

This objective will include outreach methodology experiments to acquire the preferred contact technology for each new UOAVA voter. Our strategy is to collect this information at enlistment, or shortly thereafter. We have identified several sources to assist us in capturing this information, and will experiment with each. These experiments were selected on the basis of sustainability and scalability. Each experiment involves collaborative effort, and each collaborator reinforced our premise that cost effectiveness must be very high. We have already identified a method to automate one experiment with zero incremental costs per inquiry with one collaborator and significantly, this methodology can be replicated in every county in the country.

#### 2.3 Project Schedule

The three project tasks are defined by the objectives above of (1) Increasing the number of registered UOCAVA voters, (2) Increasing the number of ballot requests from UOCAVA voters and (3) Increasing the percentage of returned ballots from UOCAVA voters. We pursue these objectives in parallel.

For the first objective, we must create a data stream about new UOCAVA voters so that we can reach out to them. In order to leverage this data, we must create a messaging plan that is likely to (1) Motivate new UOCAVA voters to implement our applications and (2) Follow the apps through the electoral process. We will conduct extensive functional testing and focus group testing prior to its use in the election. This objective culminates in operational messaging that begins as soon as possible in order to catch as many new UOCAVA voters as is possible and that continues right up to Election Day.

Similarly, the second and third objectives rely on establishing effective messaging plans that will attract voters and will motivate them to accomplish the necessary electoral actions.

Objective	Task	Start	Completion
Registration	Mil Recruiting Data stream	Aug 2011	Mar 2012
	Create messaging plan	Aug 2011	Jan 2012
	Implement/test messaging	Oct 2011	Mar 2012
	Operational messaging	Dec 2011	Oct 2012

The following chart details our project plan.

	Assessment	Aug 2012	Dec 2012			
Ballot Request	Create messaging plan	Aug 2011	Jun 2012			
	Implement/test messaging	Mar 2012	Jul 2012			
	Operational messaging	Aug 2012	Nov 2012			
	Assessment	Aug 2012	Dec 2012			
Ballot Return	Create messaging plan	Jan 2012	Jul 2012			
	Implement/test messaging	Mar 2012	Aug 2012			
	Operational messaging	Sep 2012	Nov 2012			
	Assessment	Oct 2012	Dec 2012			
Table I. Project Plan						

#### 2.4 Project Reporting

As indicated in the solicitation, the project team will produce three reports; two recurring reports and a Final Report. The recurring reports will be produced within two weeks of the end of the reporting period (the reporting period will be designated by the sponsor upon project award) and will be submitted to the sponsor concurrently, by email. The Final Report will detail the project process and outcomes. Each of these reports is described in the following subsections.

#### 2.4.1 Programmatic and Financial Progress Reports

The Programmatic and Financial Progress Report contains administrative and management information about the project. The report focuses on time and resources and will be substantially in the following format:

#### (1) Executive Summary

- (2) Project plan status and variance
- (3) Budget status and variance
- (4) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented

#### 2.4.2 Data collection points reports

The Data Collection Points Report contains operational project information. Its focus is on project functionality, accomplishments, and planned activities. The report will be substantially in the following format:

- (1) Executive Summary
- (2) Summary of accomplishments from the preceding period

- (3) Summary of activity planned for the upcoming period
- (4) Issues/risks identifying concerns that could impact completion of significant tasks or which might have material budget or timeline implications for any issues/risks identified, recommendations to resolve or mitigate the concern will be presented

#### 2.4.3 Final Report

The project manager will prepare a final report that details performance in the general election and that delivers our assessment results.

#### 3 MANAGEMENT APPROACH

The project is led by Don Davis, the Mobile County Probate Judge and by Alleen Barnett, the Mobile County Absentee Election Manager, and Alec Yasinsac, Professor and Dean of the University of South Alabama School of Computer and Information Sciences is the Principle Investigator (PI). The Probate Court Information Technology specialist will provide technical support to the investigator team.

Les Barnett, Director of the University of South Alabama Center for Forensics, Information Technology, and Security, is the Project Manager (PM) and will oversee day to day project operations. The Probate Court and Election Center employees will analyze the existing environment and identify opportunities to best utilize the popular technologies. They will also participate in the project evaluation. The PI and PM will drive project activity, select and source the required resources, and will schedule activity execution.

The Goals and Objectives listed in section 3.2 will all be assessed, solutions selected for, designed and evaluated concurrently.

#### 3.1 Current and Pending proposal submissions

We are in contact with local elections officials from Baldwin, Clarke, and Washington counties in Alabama to conduct similar pilot programs that leverage social media and smartphone technology to increase UOCAVA voter participation and to improve the UOCAVA voting experience. Those proposals will leverage the management and operational structure that this project will put in place if awarded.

#### 3.2 Qualifications

#### 3.2.1 The Honorable Don Davis

Judge Don Davis was elected in 2000 and took office in January, 2001 and was re-elected in 2006. He is Mobile County's 27th Probate Judge, and is a member of the Alabama Help America Vote Act Advisory Committee (2004 - current). Judge Davis was General Conservator for Mobile County, Alabama (appointed by Mobile County Probate Judge Lionel W. Noonan) from the Summer of 1998 through November, 2000. He is licensed to practice law in all of the courts of the State of Alabama and before all of the United States District Courts in the State of Alabama and before the United States Eleventh Circuit Court of Appeals.

#### 3.2.2 Alleen Barnett

Alleen Barnett is the Mobile County Absentee Ballot Manager. She has been an Alabama Poll official for 20 years and an Inspector for the past 10 years. She has 25 years experience managing business units, 20 of those at the University of South Alabama's College of Medicine throughout their clinic operations. Mrs. Barnett was moved from department to department by upper management, with each transfer came a promotion. Her position at retirement was Manager of Insurance Services for Patient Business Services for the Health Services Foundation of the University of South Alabama, which included a dozen clinics located at four facilities. After retirement from the University, she served as Director of Operations for a 25 physician cardiology practice with multiple locations through out the county.

#### 3.2.3 The Honorable Les Barnett

Les Barnett is the Director of the Center for Forensics, Information Technology, and Security (CFITS) at the University of South Alabama. He brings over 30 years of business management experience, most of which was in the Information technology industry. Mr. Barnett was a founder of Omniphone, Inc. and operated that company as president and CEO for twenty years, retiring in 2008. While there, his company provided embedded systems to telephone service providers, including BellSouth, Ameritech, Southwestern Bell, Cincinnati Bell and others, as well as billing, data mining and other IT services.

Mr. Barnett has also been an Alabama Poll official for 20 years, Poll Inspector for 2 years and a Chief Clerk for 2 years. Prior to that, he was a poll watcher for 10 years.

#### 3.2.4 Alec Yasinsac

Dr. Alec Yasinsac is Professor and Dean, School of Computer and Information Sciences, University of South Alabama. He has thirty years of experience in computer software, application development, mainframe operating systems, and network engineering and has published over sixty refereed workshop, conference, and journal papers on information security. Alec served in the Marines and voted absentee as a UOCAVA voter for twenty years of military service, serving twice as his unit's Voting Assistance Officer. He received his doctorate from the University of Virginia where he was on faculty as Assistant Professor and Marine Officer Instructor in the Naval ROTC unit. He sits on the ACM US Public Policy Committee, where he has co-chaired the sub-committee on voting issues.

With research interests in information security, risk assessment, computing forensics and electronic voting systems, Alec was on the Advisory Board for the National Academy of Engineering 2007 National Meeting Symposium On Electronic Voting. As co-founder and codirector of the Security and Assurance in Information Technology (SAIT) Laboratory at Florida State University, he was appointed to lead the first ever academic source code review in support of a U. S. federal election audit for the 2006 Florida United States Congressional District 13 election contest. He has conducted several other electronic voting security code reviews and systems security analyses for the Florida Department of State. Alec routinely testifies before federal bodies and regularly contributes to national meetings and panels that address voting system security issues. Most recently, Alec was selected by the U. S. Elections Assistance Commission to lead a team that conducted an EAC-sponsored Elections Operations Assessment. That project produced the Risk Assessment tool named the Threat Instance Risk Analyzer (TIRA) that is used to evaluate comparative risk among voting systems in support of the Voluntary Voting System Guidelines policy decisions.

# 3.2.5 Joe McEarchern

Joe McEarchern is Chief Clerk of the Mobile County Probate Court. He graduated from C.F. Vigor High School, Prichard, AL 1968, and graduated from the University Of South Alabama, Mobile, AL in 1972 with a BA degree. Joe was employed by the Probate Court of Mobile County in July, 1972 - 1981 as Administrative Assistant and since March, 1981 has been employed by the Probate Court of Mobile County as Chief Clerk. Joe has earned additional studies at the Alabama Law Institute (Probate Law for Probate Judges/Administrators) with 3 sessions over the period beginning in 1992 and running through 2010.

#### 3.2.6 Miranda Phelps

Miranda Phelps is the Manager of Systems and Programming at Mobile County Probate Court. Miranda was educated at the University of South Alabama, and holds a Bachelor of Science in Computer Information Sciences. She is currently enhancing the Probate Court web page.

#### 3.2.7 Roxann Dyess

Roxann Dyess is the Mobile County Probate Court's Election Coordinator. A Certified Paralegal since 1996, she joined the Probate Court in 1983 spending the first 24 years in the judicial division as a Paralegal. Roxann has been the Mobile County Elections Coordinator since 2005. She has been a speaker on Election Procedures at several Alabama Probate Judges' Association workshops sponsored by and held at the Alabama Law Institute in Tuscaloosa, Alabama.

#### 4 BUDGET PROPOSAL

4.1 Itemized Budget Narrative

We summarize and justify our budget items in this section and provide a detailed budget as appendix.

#### 4.1.1 Direct Labor: \$33,800

The labor costs are set aside for the Absentee Ballot manager, which is a permanent part time position. The Senior Elections Official and the Information Technology Specialist will perform work for this project. Each of these officials will devote the designated effort to the project for specific tasks that are extensions of their normal duties.

#### 4.1.2 Administrative and Clerical Labor:

There are no administrative or clerical labor charges from Mobile County. The subcontractor budgets a small administrative salary set aside for project and contract administration reflected in section 4.1.5.

#### 4.1.3 Fringe Benefits and Indirect Costs: \$8,450

Mobile County does not charge indirect costs. Fringe benefit rates for Mobile County employees are set by county regulation.

#### 4.1.4 Travel: \$2,600

We budget for travel in support of project outreach efforts to identify sources of new UOCAVA voter information and to coordinate and disseminate project results with professional organizations supporting elections officials such as the National Association of Secretaries of State and the National Association of State Election Directors.

#### 4.1.5 Subcontracts/Sub-awards: \$129,851

We subcontract to the University of South Alabama to provide project design, implementation, and management services.

#### 4.1.6 Consultants

There are no direct consultants to Mobile County. The subcontractor engages two outside elections officials from neighboring counties as consultants to assist with project evaluation.

#### 4.1.7 Materials and Supplies \$13,000

We expect substantial communication costs associated with connecting with present and new voters. Items include two desktops, one laptop, printer/fax/scanner, mailings, web page.

#### 4.1.8 Other Direct Costs

There are no other direct costs.

#### 5 PROJECT EVALUATION PLAN

Benchmarks when we will evaluate progress/success.

December 2011; Evaluate Primary Preparation results for UOCAVA voter outreach and identification, Probate Court web page improvements and implementation of new technologies widely utilized by UOCAVA voters. The Evaluation will be performed by the Mobile County Probate Court and Election Center employees.

April 2012; Evaluate Primary results for UOCAVA voters registration; ballot requests; returned ballots verses last cycle. The Evaluation will be performed by the Mobile County Probate Court and Election Center employees, and by Valerie Davis, Probate Judge in Clarke County, and Charles Singleton, Probate Judge in Washington County.

August 2012; Evaluate General Election Preparation results for UOCAVA voter identification. The Evaluation will be performed by the Mobile County Probate Court and Election Center employees.

November 2012; Evaluate General Election results for UOCAVA voters registration; ballot requests; returned ballots verses last cycle. Evaluation will be performed by the Mobile County

Probate Court and Election Center employees, and Valerie Davis, Probate Judge in Clarke County, and Charles Singleton, Probate Judge in Washington County.

#### 6 CONCLUSION

This proposal will exploit the widely utilized new technologies that are very popular among UOCAVA voters. Our approach is positioned to produce significant improvements in our three target areas UOCAVA voter absentee ballot requests, ballots voted, and registration precisely because it seeks to modify the behavior of the Election Officials activity to leverage the popular technologies in use today by the voting population. By designing our methodologies to leverage social networking, smart phones, and personal digital assistants we can have the largest impact on the largest number of voters. The very nature of these technologies is to allow people to stay in touch with each other, and we plan to implement processes that will allow and cause our Probate Court Election Officials to identify, stay in touch with, and proactively assist their UOCAVA voters.

Our experiments are based upon these new technologies, including social networks, texting and email and will implement methodologies that are applicable to all Probate Courts, are scalable and sustainable. By including input from other counties, and then exporting the methodologies to those counties, we can weigh the costs of implementation and operation against the improvements we observe in the actual results.

If successful, the implementation our proposal in our three target areas will improve the UOCAVA voting experience, registration and response percentages through innovative "push" technology. By collaboration of government, industry, and academia and by design, this technology will easily transition to other localities, efficiently scaling to small and large election jurisdictions, and offering immense potential for improvement in the opportunity and voting experience of UOCAVA voters nationwide.

Because these advances are based on stable, widely used social networking and personal communication applications, if this type of UOCAVA voter outreach proves effective, the foundation is solid for its long term effectiveness.

In Summary, we will implement methods that utilize popular technologies widely utilized by UOCAVA voters to improve the percentage of said voters that Probate Judges can notify to request ballots, decrease the number of undeliverable absentee ballots, and improve the percentage of returned ballots. We will also improve the accuracy of the entire process, improve the quality of the absentee voting experience, and there by increase the percentage of UOCAVA military and Military in general that vote in the 2012 election.

		FVA	P EASE			
		Mobil	e County			
						Cumulative
Name		FTE	Year 1	Year 2	Year 3	Total
Alleen Barnett	\$52,000	50%	\$26,000	\$7,800		\$33,800
			\$0	\$0		\$0
			\$0	\$0		\$0
			\$0	\$0		\$0
Total			\$26,000	\$7,800		\$33,800
						. ,
Staff						\$0
Post Doctorate Researcher						\$0
Fringe Benefits			\$6,500	\$1,950		\$8,450
Total Salary plus Fringe			\$32,500	\$9,750		\$42,250
Graduate Assistant:			\$0	\$0.00		\$0
Travel			\$2,000	\$600		\$2,600
Materials and Supplies:	< \$4,999. each piec	ce	\$10,000	\$3,000		\$13,000
Equipment:	>5,000 each piece			[]		\$0
GA tuition			\$0	\$0		\$0
Sub-Contract			\$103,605	\$26,246		\$129,851
Other:						
Total Direct Cost			\$148,105	\$39,596		\$187,701
F&A	0%		\$0	\$0		\$0
				11		1
Total			\$148,105	\$39,596		\$187,701

\* F&A cost does not include equipment, tuition or sub-contract amount over \$25,000.

		FVA	P EASE			
	USA So	hool of Compute	r and Information Scien	ces		
						Cumulative
Name		AY	Year 1	Year 2	Year 3	Total
Alec Yasinsac	\$200,000	5%	\$10,000	\$3,000		\$13,000
Les Barnett	\$120,000	10%	\$12,000	\$3,600		\$15,600
						#
			=			
Total			\$22,000	\$6,600		\$28,600
Staff			\$4,160	\$1,248		\$5,408
Fringe Benefits			\$6,540	\$1,962		\$8,502
Total Salary plus Fringe			\$32,700	\$9,810		\$42,510
Graduate Assistant:	0		\$0			\$0
Travel			\$5,000	\$2,000		\$7,000
Materials and Supplies:	< \$4,999. each piece	e	\$4,900	\$0		\$4,900
Equipment:	>5,000 each piece					\$0
GA tuition			\$0			\$0
Sub-Contract			\$32,476	\$7,286		\$39,762
Other:						
Total Direct Cost			\$75,076	\$19,096		\$94,172
F&A	38%		\$28,529	\$7,150		\$35,679
Total			\$103,605	\$26,246		\$129,851

\* F&A cost does not include equipment, tuition or sub-contract amount over \$25,000.

FVAP EASE										
			Key Bu	siness Tec	hn <mark>ologie</mark>	s				
Name		AY	SM	Year	1		Year 2	Year 3	C	umulative Total
Mark Thomas				\$ 2	2,000					\$2,000
						+				
Faculty Total				\$ 2	2,000					\$2,000
Post Doctorate						_		-	++	
Fringe Benefit										
Total Salary plus Fringe				\$ 2	2,000	\$	•		\$	2,000
Travel					=	╞			ć	
Materials and Supplies:	< \$4,000, open							_	\$	-
	< \$4,999. each			\$ <u>\$</u>	9,600		¢2,880,00		\$	
Equipment:	>5,000 each p	lece		\$ :	9,600	_	\$2,880.00		>	12,480
Sub-Contract										
Other:									$\square$	
Total Direct Cost			1	\$ 11	1,600	\$	2,880		\$	14,480
F&A, Rate:	0%			\$	0	\$	0		\$	0
Total				\$ 11	1,601	\$	2,880	+	\$	14,481

\* F&A cost does not include equipment, tuition or sub-contract amount over \$25,000.

				Kon	nech				
					Year 1		Year 2	Year 3	Cumulative Total
Eugene Yu	\$100,000	15%	0	\$	5,500	\$	165		\$5,665
	1 1				1				
Total Salary	1 1			\$	5,500	\$	165		\$5,665
<u>, , , , , , , , , , , , , , , , , , , </u>				Ť		. *			+-,
Staff									\$0
	-								
Fringe				\$	1,375	\$	41		\$1,416
Total salary plus fringe				\$	6,875	\$	206		\$7,081
Travel						\$			\$0
	+		+						
Equipment			-	\$	14,000	\$	4,200		\$18,200
			1	Ť	11,000	Ť	.,200		¢10,200
	4 4		-	1		4			
Total Direct	1 1			\$	20,875	\$	4,406		\$25,281
Indirect			-						
Total					\$20,875		\$4,406		\$25,281

## **Montana Electronic Absentee System**

# 2012 Technical Proposal Montana Secretary of State

## CFDA: 12.217

### BAA: HQ0034-FVAP-11-BAA-0001

CAGE Code: (b)(4)

DUNs:

Montana Secretary of State, Linda McCulloch

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Period of Performance: July 1, 2011 – December 31, 2020

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#### **Executive Summary**

Access to voting for Montana's absent military citizens, their families, and overseas citizens has long been a priority for the Montana Secretary of State. Montana has been at the forefront of providing electronic voting capabilities for UOCAVA voters for several decades. Passing legislation authorizing the use of electronic means for voting in 1991, Montana was one of the first states to address the challenges for voters covered under UOCAVA.

In 2010, the Montana Secretary of State was one of 17 state election officials that participated in the Federal Voting Assistance Program's Electronic Voting Support Wizard (EVSW) project, and was one of a handful of states that included all local jurisdictions in the program. The Secretary of State worked with the vendor who was the successful bidder for the project for Montana, Konnech Inc., to develop Montana's EVSW; a model that was calculated by FVAP to have the highest usage rate among participating states.

Planning for the 2012 election cycle, Montana has the advantage of being able to analyze the successes and failures of the 2010 program, and to build a better product for even better results for 2012.

The Secretary of State has been working since completion of the 2010 general election to strengthen the electronic ballot marking tool to address the following main areas:

- Security of the elector's provided personal identification number
- Seamless access to and preparation of voter registration materials
- Accurate ballot access for new/updated registrants
- Relectronic ballot access for primary election as well as general election
- Period tracking of types of users for utilization in the national research effort
- Outreach to UOCAVA voters regarding availability of services, including the electronic absentee system

These efforts will not only benefit absent military voters, their families and overseas citizens, but will also benefit the national research effort by providing more detailed data on each type of user, as well as data on the trend for voter registration and successful ballot transmission for UOCAVA voters.

Montana's tradition of high voter participation for UOCAVA voters, combined with additional outreach and access efforts during the 2012 election cycle made possible with funding from the FVAP grant program, will help Montana to again be at the forefront for participation and satisfaction for all eligible UOCAVA voters. A voter who utilized Montana's 2010 Wizard said it best, summing up the affect the Wizard had on his right to vote:

#### "Hi Diane,

The voting system itself was easy to use and greatly appreciated. Last time I was in Iraq I didn't even try to vote, with this system I will everytime...... I would recommend it for all needing a absentee ballot. Mattingly, Joseph"

#### **TECHNICAL APPROACH**

Montana's technical approach is detailed below and includes descriptions of the goals of the Secretary of State that meet the Federal Voting Assistance Program's grant objectives to assist UOCAVA voters.

#### Goals and Objectives

#### Goal No. 1

To improve the UOCAVA voter experience in Montana through the development of a successful, sustainable and affordable Electronic Absentee System (EAS). This goal was partially met in 2010 with the Ballot Marking Wizard established in conjunction with the FVAP and Konnech, Inc. Enhancements to the 2010 service will further improve those voting opportunities.

- **Successful:** Montana's 2010 absentee service was calculated by FVAP to have the highest usage rate among participating states. Montana can build on that success by implementing the enhancements described in this proposal.
- Sustainable: Montana's Electronic Absentee Service will be sustainable because of the Montana Secretary of State's commitment to researching and providing new and innovative approaches to making voting more efficient and accessible for voters covered under UOCAVA. Sustainability funding will be provided by remaining funds in Montana's Help America Vote Act fund, office funds, and Federal Voting Assistance Grant funds.
- Affordable: Montana plans to partner with Konnech, Inc. to build the 2010 service, utilizing a 2010 FVAP grant opportunity. Between Konnech, Inc. and the Montana Secretary of State, resources in the form of personnel and time have been allocated to developing the necessary enhancements to the service for 2012. Technology that was developed for another service, the Google Voting Information Project is used to match a voter with the correct precinct specific ballot, drastically reducing development costs. Affordability for 2012 is accomplished by having the core processes and infrastructure already in place. Ongoing support and maintenance of the service is accomplished through funds remaining in Montana's Help America Vote Act account, as well as potential current and future grant opportunities and office funds.

#### Goal No. 2

The goal to reduce the failure rates for UOCAVA voters is the main focus of the enhancements proposed by Montana. By assessing the successes and failures of the 2010 service, Montana is able to envision a more streamlined and efficient service for 2012 that solves a number of problems identified including voter registration, security, tracking, and reporting.

Stage	2006	2008	2010	2012 (Projection)
Voter Registration	Not Available	Not Available	50%*	4%
Absentee Ballot Request	Not Available	Not Available	Not Tracked	0%
Blank Absentee Ballot Delivery	37%	11%	7%	5%
Absentee Ballot Marking	Not Available	Not Available	0%	0%
Absentee Ballot Tabulation	12%	7%	4%	2%
Absentee Ballot Return Verification	Not Available	Not Available	0%	0%

Absentee Voting Failure Rates by Stage

\*Percentage of those attempting to access the Wizard who were unable to access because of apparent registration problems.

#### Goal No. 3

Improved services to Montana's UOCAVA voters has been a goal of the state as far back as 1991 when legislation was first passed authorizing the use of electronic tools for UOCAVA voters. Services have continually improved over the years, and the successful 2010 ballot marking wizard service was undeniably a huge improvement over previous attempts to streamline the electronic transfer of ballots and other election materials. Montana's Electronic Absentee System is being developed by focusing on eliminating the barriers surrounding the current UOCAVA voting process. Understanding that many UOCAVA voters are not able to print, sign and return their materials and ballot, Montana developed a system focusing on an entirely electronic process. Designed as a "one stop" process the Electronic Absentee System seamlessly prepares all required materials for UOCAVA voters to mark and return their ballot in one sitting.

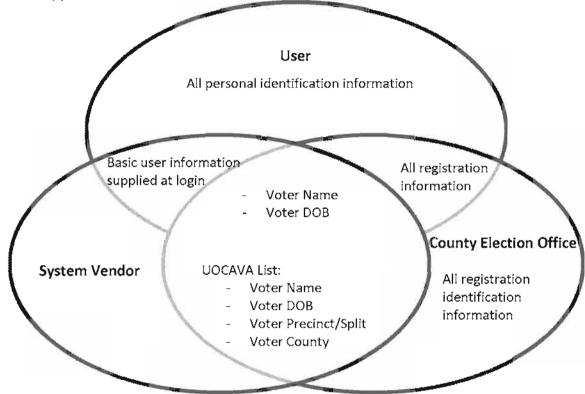
Montana's electronic absentee service will again utilize technology created for the Google Voting Information Project that associates each UOCAVA voter with their specific ballot. Using the VIP (Voting Information Project) data to determine a registering voter's correct ballot is the system's key technical component. UOCAVA eligible voters using the system to register to vote and access their ballot would otherwise need to have their registration processed by the county election office to determine their correct ballot. Requiring this additional registration process often proved to be a burden for UOCAVA voters in 2010. Using the VIP data allows the system to eliminate the additional registration process and assigns the voter a ballot using the address supplied by the voter. This "one stop" system is a valuable benefit for Montana's UOCAVA voters and for county election offices.

Additionally, Montana's vision for expanded and more detailed tracking and reporting will help in the national research effort to develop new technologies and best practices.

#### Goal No. 4

Montana's goal to protect personal identifying information and transmitted ballot information is accomplished by not allowing the electronic absentee service to retain data containing personal identification numbers provided by the user, or voted ballot information. The user must print or save the voted ballot file. Users are also provided with instructions and warnings for using shared or public computers. UOCAVA voters are able to completely prepare and submit registration and ballot materials electronically because county election offices are able to verify and confirm the voter through personal identifiers, such as a Montana driver's license or last four of the Social Security Number, supplied by the user. When voters submit materials and ballot prepared electronically, the identification numbers are substituted in place of the signature, and serve as an additional security measure to ensure the integrity of the process.

The following diagram displays the correlation between personal information and the party with access to each type of information.



To eliminate security concerns and any possibility for fraudulent registrations and/or ballots, the vendor is not provided with UOCAVA voter personal identification numbers used by the county to confirm the voter's identity.

Additional security measures include authorizing the voter to prepare only one ballot. Attempts to prepare more than one ballot are blocked and users are directed to contact their county election office for further assistance. The system is also developed to not record or store ballot selections and personal identification numbers. All documents containing personal identification numbers and ballot selections must be saved and returned by the voter. Once electronic absentee service materials are received by local election offices they are processed and secured according to state law and Administrative Rule.

Paralleling the grant requirement, the absentee system is not allowed to transmit voted ballots although the user may seamlessly transmit their ballot materials via personal email.

Technical security measures in place to safeguard the system are detailed in the security plan below:

#### SERVER SECURITY

PollChief® servers are kept in a leased cabinet in a telecomm datacenter located in Lansing, MI with equally secured backups in Okemos, Michigan, or Los Angeles, California. Secure Facility Double hulled datacenter core Manned 24 X 7 X 365 Biometric security scanner IPTV camera system with full recording Secured entrances from lobby 24 X 7 collocation access Large redundant Internet backbones including AT&T, Level 3 & UUnet Data Center Core Phase I = 5K sq ft, Phase II = 10K sq ft Double walled & roofed exterior & interior Primary power Backup generator Redundant battery array Redundant backbone Internet connections

#### WEBSITE SECURITY

Konnech uses Hypertext Transfer Protocol Secure. Hypertext Transfer Protocol Secure (HTTPS) is a combination of the Hypertext Transfer Protocol with the SSL/TLS protocol to provide encryption and secure (website security testing) identification of the server. HTTPS connections are often used for payment transactions on the World Wide Web and for sensitive transactions in corporate information systems. Your web site will be secured using industry-standard 128-bit encryption or higher. In addition, the data transferred through the SSL/TLS secured layer is encrypted. The encryption meets the Federal Information Processing Standards (FIPS).

#### DATA SECURITY

Konnech ensures that data is kept safe from corruption and that access to it is suitably controlled. Thus our security policies help to ensure privacy. There are multi-level roles for system access, strong password protection for web access, and 5 minute (or other interval selected) time out for idle users. The data is encrypted while sent through SSL/TLS and resident in the SQL database. All cryptographic functionality is implemented using (National Institute of Standards and Technology) NIST-approved cryptographic algorithms/schemas, which is in compliance with the FIPS certificates.

#### OPERATIONAL SECURITY

Konnech has a well-defined architecture (or algorithm) set in place. For example, we only allow certain IP address to access certain data points. Konnech establishes a firewall between testing data and actual data. Thus, our programmers and testers cannot view or alter the actual data of the voters except the authorized personnel within Konnech.

Sometimes, programming mistakes, such as buffer overflows, can affect the security of a database. We pay close attention to operator issues; we utilize strong passwords on routers and workstations, we guard against the accidental disclosure of a shared key and we restrict forwarding of configurations to ensure they are not sent to un-trusted third parties.

#### PLAN TO PREVENT INTRUSION AND CAPTURE INTRUSION DATA

Konnech has always been hyper-alert to the needs of security for sensitive data. We have chosen to establish a policy and set of procedures that prepare our organization to both prevent and to detect signs of intrusion, building the right policies and procedures for hardware and software selection, installation, maintenance and support, for the selection of a secured datacenter and for the recruiting and training of the related personnel.

1. Identify and enable system and network logging mechanisms.

Our procedures require secured data logs; the logged data is secured, monitored and studied. The plans for dealing with intrusions are updated and tested.

2. Identify and install tools that aid in detecting signs of intrusion.

We use only Cisco routers and firewalls. Managed switches are used on all servers. Symantec Anti-Virus, Internet security, and anti-spyware programs are used for all servers. Microsoft Systems Center Manager is used to show the state, health and performance information as well as alerts generated by availability, performance, configuration or security situations/criteria, so we can gain rapid insight into the state of the IT environment, and the IT services running across different systems and workloads.

- 3. Generate information to verify the integrity of the systems and data.
  - a. Our programs monitor the full inventory of our hardware assets, and maintain an authoritative copy of all critical files and directories.
  - b. The programs capture and characterize expected processes and user behavior and trigger an instant alert when unexpected incidents occur. This ensures that only authorized users and system functions occur.
  - c. To protect our system inventory and ensure the integrity of our reference data, we keep authoritative copies of files and checksums on write-protected or read only media stored in a physically secure location.
  - d. Furthermore, we maintain paper copies of critical files in the event we are unable to recover uncorrupted electronic versions.

4. To prepare for the worst situation, Konnech provides redundant data and systems. This protects the voters even if the primary system should totally fail. Our clients are protected by a backup URL with a totally separated domain hosting, data network, and data hosting channel with a sync database.

5. Konnech is constantly vigilant for new security procedures and products. We keep our minds open to new ideas and suggestions based on changing network environments, new project requirements and users profiles.

#### Electronic Absentee System Technical Process Description

- 1. UOCAVA voters using the Electronic Absentee System (EAS) are able to prepare and submit their materials in several easy steps. A voter using the EAS must first affirm they are an absentee voter covered under UOCAVA and answer a series of closed ended questions designed to determine the type of user. These questions tailor materials for the qualified users and direct non-eligible UOCAVA voters to appropriate resources.
- 2. The next step requires the user to provide personal identification information.
- The system uses the information provided by the user to prefill the return cover sheet and FPCA (when applicable). Eligible UOCAVA users not registered to vote or who have not updated their voter registration status as a UOCAVA covered voter are provided with a prefilled Federal Post Card Application (FPCA) to be submitted with their ballot. Additionally, each qualified voter who uses the service for the primary election will be provided with a prefilled FPCA. A voter who does not use the service for the primary election, will be provided with a prefilled FPCA for the general election.
- 3. Once users confirm that their personal information is correct on the prefilled forms the user is provided with their ballot depending on their voter registration status. Users with a current UOCAVA status are matched to their correct ballot by the name and date of birth provided in step #2. Users that are registering for the first time, or are updating their voter registration are provided a ballot based on the physical address provided by the user. The system identifies the correct ballot by using the address range associated with each ballot in the VIP data. After marking the ballot, the system provides the user with three options (email, fax, and standard mail) to return their ballot and forms.
- 4. Users choosing to return their ballot by email are provided a non-editable PDF that can be saved and returned as an attachment by the user from their personal email account. Fax and standard mail return options are provided the same non-editable PDF that can be printed or saved and printed for return at a later time. Users choosing to return their materials by fax are provided a prefilled fax cover sheet and users selecting the standard mail return option are provided with a preaddressed election mail envelope template. This envelope can be sent postage paid when mailed using the U.S. Postal System.
- 5. Upon creation of the ballot PDF, the system sends a ballot generation notification with ballot tracking and county contact information to the email address provided by the voter. In addition to notifying the voter, the system also sends an email notification to the election office with the voter's contact information. These notifications serve an instrumental role if contact needs to be made to resolve questions.
- 6. The EAS seamless voter registration and update capability automatically provides UOCAVA eligible voters with the forms necessary to confirm their UOCAVA eligibility. Combining the ballot and registration process eliminates the concern that the additional process will be a burden often left uncompleted; similar to what was encountered when using the 2010 ballot marking wizard.

7. Another system safeguard rests with the county election office as they register or update the applicant's voter registration. After a voter's registration is processed, the county election office will be able to determine if the ballot style issued based on the VIP feed is correct. If the correct ballot was issued by the VIP the county duplicates the EAS ballot onto the official ballot to be tabulated with all other ballots, pursuant to a secure process outlined in Montana law and Administrative Rule. In the rare case that the county encounters registration problems or determines the voter should have been issued a different ballot, the county will have the voter's most recent contact information. UOCAVA voters are also able to check the status of their registration and absentee ballot by using Montana's public online portal "My Voter Page."

#### **Schedule and Milestones**

The following is an outline of the proposed timeline and progress milestones:

July September 2011

Pending grant award, enter into formal agreement with system vendor (Konnech Inc.) and submit detailed Electronic Absentee System requirements. Finalize system enhancements and begin programming.

October December 2011

Continue working closely with vendor during programing and testing.

#### January February 2012

Begin system quality acceptance testing and site optimization. Create training and outreach documentation.

#### March - April 2012

Conduct primary election test run and final system acceptance. Finalize training and outreach materials. Go live with system no later than April 20<sup>th</sup> 2012. Begin outreach efforts immediately after system goes live. State determines system effectiveness by monitoring daily activity.

#### May June 2012

State continues to monitor system activity daily and work with county, system vendor and voter to resolve any problems. System is taken offline when polls close. State and vendor create analysis and use reports. Progress is measured and evaluated against planned milestones and usage rates. State reports findings and recommendations to FVAP.

#### July August 2012

Review primary election system performance with vendor and determine the need for any functionality changes. Analyze impact of outreach efforts and compare usage results with previous findings. Implement system changes for general election.

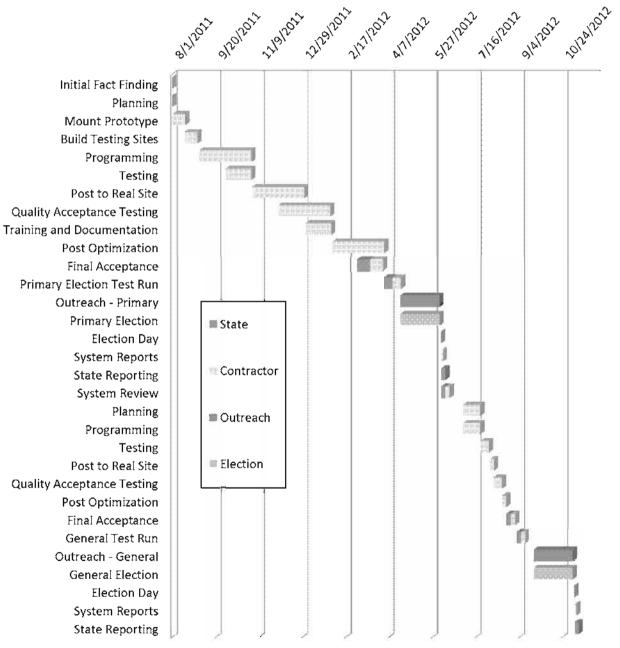
#### September October 2012

Conduct general election test run and final system acceptance. Finalize training and outreach materials. Disseminate county training materials and follow-up with questions. Go live no later than September 21<sup>st</sup>, 2012. Begin outreach efforts immediately after system goes live. State monitors system activity daily and immediately resolves issues.

#### November - December 2012

State continues to monitor system activity daily and work with county, system vendor and voter to resolve any problems. System is taken offline when polls close. State and vendor create analysis and use reports. State analyzes impact of outreach efforts and compares usage results with previous findings. System is evaluated for effectiveness and whether program milestones were met. State prepares and submits final reports to FVAP.

The following are key milestones for system development and implementation.



#### 2012 Montana Electronic Absentee System Milestones

Current Wizard **Proposed System** User navigates to Wizard User navigates to Wizard User provides identification User provides identification information information System determines if user is a System determines if user is a registered UOCAVA voter registered UOCAVA voter Not Registered Registered Registered Not Registered System prepares FPCA User registers as UOCAVA voter User marks ballot User marks ballot User selects return method User selects return method User returns: User returns: - Cover Sheet - Cover Sheet - FPCA - Ballot - Ballot User tracks processing online using My Voter Page User tracks processing online using My Voter Page

The following is a side by side comparison of the current and proposed processes.

#### Reports

The following describes the administrative and technical reports that will be prepared.

#### Programmatic and Financial Progress Reports

- Before Launch (Weekly)
  - o Current Subject of Design and Program
  - o Current Difficulties and Successes
  - o Testing Results
- After Launch (Weekly)
  - o Traffic Analytics-daily and to date
    - site usage
    - bounce rate
    - page views
    - direct traffic
    - referring sites
    - countries (name & number and percentage of users)
    - search engines
    - pages per visit
    - average time on site
    - new visits,
    - unique page views
    - average time on page
    - exit percentage
- Error Reports (within 24 hours of occurrence)
- Financial Reports (Monthly)
  - o Costs Incurred and Expended
- Ongoing Reports
  - 2014 2020 Federal Election Cycle reports will be reported on the same schedule as the 2012 cycle. Future reports will include the same information and additional information as necessary.

#### Data Collection Points Reports

List of data and date of collection: (relative to primary and general elections)

- VIP Feed ASAP
- County ballot splits as necessary
- 46 days before list of UOCAVA Voters
- 45 days before list of UOCAVA Voters
- Daily (45 thru Election Day) list of UOCAVA Voters each day
- Daily (45 thru Election Day) weekly and when necessary usage rates
- Day after Election Day wizard statistics

#### Final Reports

Progress Reports

- Performance Reports (Annually)
  - o Performance indicators measuring achievements
  - o Success and failure rates
  - o Return on Investment rates
- Financial (Annually)
  - o Detailed financial cash flow and activities

The system will display statistics and reports after primary and general elections:

- UOCAVA voters on list
- Login statistics (successful and failed attempts and reason)
- User type (uniformed, civilian, spouse or family)
- User location (domestic, and overseas)
- Completed and uncompleted forms (ballots and FPCAs)
- Return methods used (email, fax and standard mail)
- Anonymous Satisfaction survey responses
  - o First-time users
  - Ease of use ranking
  - Preference for continued online availability
  - o Comments
- Traffic analytics

#### Management Approach

Montana's management approach is detailed below and includes descriptions of the goals of the Secretary of State that meet the Federal Voting Assistance Program's grant objectives to assist UOCAVA voters.

#### Strategic Goals and Methodology

#### Goal No. 1

By enhancing the 2010 ballot marking wizard to include outreach to potential voters, a seamless voter registration process, improved security measures, and more detailed tracking and reporting capabilities, the voting experience for Montana voters protected by UOCAVA will be efficient, successful and sustainable. Sustainability is possible primarily due to the Montana Secretary of State's commitment to researching and providing new and innovative approaches to making voting more efficient and accessible for voters covered under UOCAVA. Financial sustainability will be accomplished utilizing funds remaining in Montana's Help America Vote Act fund, office funds, and current and future FVAP grant opportunities.

#### Goal No. 2

Outreach efforts to inform and educate Montana UOCAVA voters, along with the streamlined access to and preparation of voter registration materials, will help to increase the percentage of ballots successfully returned to reach or exceed the percentage of ballots successfully returned by the general voting population.

#### Goal No. 3

By including access to and preparation of voter registration materials as a seamless part of the application and voting process, the failure rate UOCAVA voters may experience is predicted to drastically decrease. It was Montana's experience that voter registration issues contributed the vast majority of the failures experienced in 2010. Combined with Montana's availability of election day registration for UOCAVA voters, it is our hope that voter registration problems will be minimal and will be reduced to the equivalent, or less than the equivalent, of the level of the general voting population failure rate. Further, by providing access through the Electronic Absentee Service of a primary election ballot, participation by UOCAVA voters in primary elections should increase.

#### Goal No. 4

Montana's goal to develop and maintain a pipeline of ideas, techniques and best practices for UOCAVA voters is best demonstrated by our utilization of the nationally recognized Google "Voting Information Project" data to assign the correct precinct-level ballot for each user.

#### Financial Management

Financial management of Montana's 2012 and future Electronic Absentee System will be handled by the Chief Fiscal Officer for the Secretary of State. Funding for ongoing expenses of the System such as annual support and maintenance is anticipated to come from potential successful grant opportunities presented by the Federal Voting Assistance Program, as well as remaining funds in Montana's HAVA account and from office funds.

#### Analysis and Measurement of Current Processes and Identification of Related Elements

<b>Current Process</b>	Analysis
Outreach	Outreach to user(s) after a voter logs on, after download of ballot, after transmission of ballot, or if there is a problem.
	Outreach to election officials after a voter downloads a ballot or if there is a problem.
Registration	Directs the user to the FVAP or SOS website for registration if not already registered.
Accessing and Marking Ballot	Automatic access to precinct specific ballot for general election, after the voter self-affirms their eligibility under UOCAVA.
	Precinct specific ballot identical to paper ballot is displayed for on-line marking – marking of ballot is similar to a general voter's marking process.
Security	No personal identification numbers or ballot selections are retained by the Wizard.
Provisions	
Transmission of	Voted ballot can be returned via regular mail (envelope template included); via
Voted Ballot	facsimile or email. Voted ballot cannot be retained or transmitted by service.
Tracking and	Reports include traffic analytics including traffic sources, pages viewed, average time
Reporting	on site, bounce rate, voter location by country.

Current Process	Measurement
Outreach	Not measured in 2010.
Registration	50% of the 2010 Wizard users were required to update their voter registration status to indicate a current UOCAVA status before returning to the Wizard to complete their ballot. 21% of these voters updated their status and returned to complete their ballot. This translates into a need to address registration availability.
Accessing and	63% of the 2010 Wizard users were able to access and mark their ballot.
Marking Ballot	No access to a primary election ballot via the wizard in 2010 significantly impacted access to the 2010 primary election for UOCAVA voters.
Security	Not measured in 2010, but a post-election assessment revealed a need to confirm the
Provisions	user was issued the correct ballot.
Transmission of Voted Ballot	93% percent of ballots generated by the 2010 Wizard were successfully received at the county election office indicating allowing the user to return the ballot by three different options greatly enhances the user's ability to transmit the ballot in a convenient and timely manner.
	95% percent of users transmitting a ballot used email transmission method indicating that the convenience of email was well received.
Tracking and Reporting	A post-election assessment revealed the need to track the type of user and the reason for failure.

#### Identification of potential risks and mitigating strategies

Potential Risk	Mitigating Strategy
Website	Use of Hypertext Transfer Protocol Secure to provide encryption and secure
Security	identification of the server. Industry standard 128-bit encryption or higher, plus data
	transferred through the SSL/TLS secured layer is encrypted. Encryption meets the
	Federal Information Processing Standards.
Data Security	Utilizing multi-level roles for system access, strong password protection for web
	access and five-minute time-out for idle users. Data is encrypted while sent through
	SSL/TLS and while resident in the SQL database. Encryption using NIST-approved
	cryptographic algorithms, in compliance with FIPS certificates.
Operational	Use of a well-defined algorithm, including allowing only certain IP addresses to
Security	access certain data points, establishing a firewall between testing and live data, and
	restricting forwarding of configurations to ensure they are not sent to un-trusted third
	parties.
Voted Ballot	System will not retain voted ballot information. User will print or save their ballot
Security	and receive instructions, warnings and best practices for handling their electronic
	document.
Non-Successful	Availability of three options for ballot transmission: Facsimile, regular mail, and
Ballot	email.
Transmission	

#### Formalization of Performance Indicators for Each Process

Performance Inc	licators
Outreach	Number of potential UOCAVA voters reached based on those that access the system, compared to an analysis of the 2010 service.
Registration	Success rate of users logging on and completing process, compared to an analysis of the 2010 service.
	Number of new and/or updated registrations via system activity.
Accessing and Marking Ballot	Success rate of users logging on and completing process, compared to success rate of the 2010 service.
	Success of primary election users compared to total primary election UOCAVA participants in previous elections.
Security Provisions	No breach of security based on web and data monitoring.
Transmission of Voted Ballot	Success rate of users logging on versus successful transmissions of voted ballot.
Tracking and Reporting	Successful retrieval of necessary and useful data that assists national research on new technologies and best practices.

#### Justification for the Modification to the Existing Processes and Projection of Effectiveness

Justification and	Projection of Effectiveness
Outreach	Outreach in the form of education and a notification is projected to increase participation by UOCAVA voters, one of the goals of the enhanced Electronic Absentee Service. Projected to increase participation by at least 7%, making it on par with participation by general absentee voting population.
Registration	A seamless registration process will reduce the error rate, thereby increasing successful ballot transmission. A post-election assessment indicated that in 2010 voter registration issues was the number one factor in the error rate.
	Projected to decrease error rate by 46%.
Accessing and Marking Ballot	Addition of a primary election ballot will increase participation by UOCAVA voters in Montana's important primary election. One stop service of including registration materials will decrease non-completion rate.
Security Provisions	Error rate indicates a need to be able to more accurately match a user to an existing voter record.
	Projected to decrease error rate by 4%.
Transmission of Voted Ballot	No modification of the existing process anticipated.
Tracking and Reporting	Contributing to national research on new technologies and best practices will be possible with enhanced tracking and reporting capabilities.
	Projected to increase effectiveness of national research by utilizing specific and exact data not available in the 2010 model.

#### Performance Measurement

- Increased participation measuring participation from past election cycles, and especially from 2008, with participation in 2012.
- Increased access and decreased user error rate comparing the error rates from 2012 with the error rates from 2010.
- Security comparing the error rates from 2012 with the error rates from 2010.
- Tracking and Reporting performance will be measured by the usefulness and exactness of data being tracked and by the usefulness of the enhanced reporting capabilities.

Percentage of Voter Turnout	2008	2010	2012 - Measured Projection
UOCAVA Voters	67%	40%	74% (at least 7% increase from 2008)
General Population Voters	74%	56%	74% (no increase from 2008)

#### Collaborations

Montana's collaborative efforts will involve working closely with, and seeking ideas and input from the following entities:

- The Federal Voting Assistance Program
- The Montana National Guard
- Montana Army, Navy, Air Force, and Reserve units, through commanders and contact established during the 2010 Wizard process
- Montana's 56 county election administrators
- The Montana Election and Technology Advisory Council
- A consortium of states with the same ballot creation vendor, including North and South Dakota

#### Contractors

- Konnech Inc.
  - o Eugene Yu
  - o Laura Potter

#### **Current and Pending Project Proposal Submissions**

• Montana is not involved in any complimentary proposals, current or pending

#### **Key Personnel**

- Linda McCulloch, Montana Secretary of State
- Lisa Kimmet, Montana Deputy Secretary of State for Elections
- Justus Wendland, Montana Help America Vote Act and Military Voting Specialist
- Katherine Dalton, Secretary of State Chief Fiscal Officer
- Terri Knapp, Secretary of State Communications Director
- Mark VanAlstyne, Secretary of State IT Manager

#### **Key Personnel Qualifications**

- Linda McCulloch, Montana Secretary of State Secretary McCulloch is the elected Secretary of State, serving the third year of a 4-year term. McCulloch was previously the elected State Superintendent of Public Instruction (8 years) and an elected state legislator (6 years).
- Lisa Kimmet, Montana Deputy Secretary of State for Elections Kimmet has been in the election administration field for 23.5 years, having served as an elected county clerk and recorder/election administrator for 19 years, and serving as Montana's election deputy for 3.5 years.
- Justus Wendland, Help America Vote Act and Military Voting Specialist Wendland has worked in the Secretary of State's elections division since 2001, starting as a high school student intern. Wendland has served as Montana's Help America Vote Act Specialist for 3.5 years and as the Military Voting Specialist since 2010.
- Katherine Dalton, Chief Fiscal Officer Dalton has been chief fiscal officer for the Secretary of State for the past 2 years, and formerly served as a financial officer for the Montana Department of Justice for 6 years.

- Terri Knapp, Communications Director Knapp has been the Secretary of State's communications director for 3 years, and previously served as the communications director for the state superintendent of public instruction.
- Mark VanAlstyne, IT Manager VanAlstyne has served as the IT Manager for the Secretary of State since 2006. VanAlstyne has 23 years of experience in IT management, and previously worked in the IT department for the Montana Department of Justice.

#### **BUDGET PROPOSAL**

Anticipated costs are listed, justified and described in each cost category below. The proposed system enhancements are evaluated by estimated cost and effectiveness in the following tables. The first table ranks the proposed enhancements by importance and expected cost. The second table determines the effectiveness by ballot cost for historical and ongoing efforts.

Rank	2012 Enhancement Description	Cost (estimate)
1	Seamless Voter Registration	\$ 40,000
2	Primary Ballot Selection	\$ 30,000
3	User Identification and Tracking	\$ 20,000
4	Minor Changes	\$ 5,000
5	Outreach Efforts	\$ 5,000

The cost-benefit table calculates historical and ongoing numbers for UOCAVA registrations, absentee ballot transmissions, and turnout on a per ballot cost basis. Montana has not previously tracked UOCAVA information requests but will be able to do so with enhancements to the 2010 absentee ballot service through outreach and education efforts.

	Federal Election Cycle						
	2008	2010	2012	2014	2016	2018	2020
Approximate Initial/Ongoing Cost	\$0.00	\$50,000	\$100,000	\$30,000	\$30,000	\$30,000	\$30,000
Expected Additional Participation*							
Total Registrants/Sent Ballots (all)	5,385	3,841	6,000	4,500	6,750	5,250	7,500
Additional Registrations (EAS)		152	1,000	500	2,000	500	2,500
Undeliverable Ballots** (non EAS)	582	358	176	125	150	125	150
Undeliverable Ballots (EAS)		0	0	0	0	0	0
Returned Ballots (non EAS)	3638	1534	4,615	2,831	5,463	3.304	6.221
Returned Ballots (EAS)		142	750	305	1,580	305	2,025
Rejected UOCAVA Ballots (non EAS)	247	58	175	131	198	154	221
Rejected UOCAVA Ballots (EAS)		0	10	5	20	5	25
Counted Ballots (all)	3,391	1.619	2,590	3,000	6,825	3,450	8,000
Total UOCAVA Turnout	63%	38%	74%	60%	78%	60%	80%
Additional Information Requests	Not Tracked	Not Tracked	50	25	100	25	125
Estimated Cost Per Successful Ballot	n/a	\$352.11	\$135.14	\$100.00	\$19.23	\$100.00	\$15.00

\*Projections are based on the type of Federal Election (e.g.: Presidential/Congressional) \*\*Projections are based on law change effective 1/1/2012 eliminating the automatic mailing of ballots for two Federal Election cycles after the initial application; as well as on increased use of enhanced absentee service

#### **Itemized Budget**

Below is Montana's Electronic Absentee System budget by designated cost category.

	Budget Items	
a)	Direct Labor	\$ 28,267.00
b)	Administrative and Clerical Labor	\$ -
c)	Fringe Benefits and Indirect Costs	\$ -
d)	Travel	\$ -
e)	Subcontracts	\$ *191,760.00
f)	Consultants	\$ -
g)	Materials and Supplies	\$ -
h)	Other Direct Costs	\$ -
	Total	\$ 220,027.00

\*Includes \$30,000 per year for annual support and maintenance costs through 2020 (when Montana estimates it can take over the service). These are costs that Montana can sustain if not awarded in the grant.

#### **Direct Labor**

For the enhancement and implementation of the 2012 Montana Ballot Marking Wizard the Secretary of State will assign the HAVA Specialist as the point of contact. The HAVA Specialist played a key role in the development and implementation the 2010 wizard and brings an established knowledge of the system and effective working relationship with the system's vendor. An information technology specialist will work with the system vendor to provide and upload statewide voter database and Voting Information Project data. The following table estimates the time and rate applicable for the 2012 system.

#### **Direct Labor Details**

a) HAVA Specialist		
2011 - 400 hours * \$17.71 =	\$ 7,084.00	
2012 - 800 hours * \$17.71 =	\$ 14,168.40	
		\$ 21,252.00
b) IT Specialist		
2012 - 305 hours * \$23.00=	\$ 7,015.00	
Total		\$ 28,267.00

#### Administrative and Clerical Labor

No administrative and clerical labor is planned.

#### **Fringe Benefits and Indirect Costs**

No fringe benefits and indirect labor costs are planned.

#### Travel

No travel is expected.

#### Subcontracts/sub awards

It is anticipated that Konnech, Inc. will be contracted to develop Montana's Electronic Absentee System for the 2012 election cycle. Detailed in the contract, Konnech will develop enhancements to Montana's current ballot marking wizard. Konnech will also host and provide technical support for the Electronic Absentee System during the 2012 and subsequent election cycles. The following Konnech Inc. draft documents are attached:

- Technical Proposal
- Plan of Action
- Itemized Budget

An overview of the contract expenses are detailed in the contract and summarized below.

2012 Proposed Contract	
Web Hosting Cost for Contract Period	\$ 15,700.00
Between July 2011 to Jan 2013	
Additional Programming Cost for Approved	\$ 26,400.00
Change Requests (300 engineer hours)	
Internal Testing, Acceptance Testing	\$ 8,800.00
Training and Documentation	\$ 6,160.00
Technical Support and Service	\$ 14,400.00
Total	\$ 71,760.00

Ongoing support and maintenance for the Electronic Absentee System is estimated as follows. This funding is requested to assist the State to develop sustainability. However, Montana is able to sustain the ongoing support and maintenance costs if not awarded in the grant. Montana's system vendor projects the following estimates to account for ongoing enhancements, hosting and maintenance and support of the application.

Ongoin	ng Support Contract Estimate	
	2014 Federal Election Cycle	\$ 30,000.00
	2016 Federal Election Cycle	\$ 30,000.00
	2018 Federal Election Cycle	\$ 30,000.00
	2020 Federal Election Cycle	\$ 30,000.00
	Total	\$120,000.00

#### Consultants

Montana will not be utilizing consulting resources for the 2012 Electronic Absentee System.

#### Materials and Supplies

Minimal amounts of normal office materials and supplies are anticipated. Insignificant in quantity, this amount has not been calculated.

#### **Other Direct Costs**

No significant other direct costs are anticipated.

# Technical Proposal: NJ SVRS Enhancements to improve service to UOCAVA Voters

# Application Deadline: July 13, 2011

Catalog of Federal Domestic Assistance Number: **12.217** BAA number: **H98210-BAA-11-0001** CAGE Code (b)(4) and DUNs Number (b)(4)

Identity of applicant and complete list of contractors, and/or sub recipients, if applicable: State of New Jersey, Department of State, Division of Elections Hewlett Packard Enterprise Services

Technical contact: Michael DiSimoni, 225 West State Street, PO Box 304, Trenton, NJ 08625-0304, (609) 292-3760, Fax: (609) 777-1280, Michael.DiSimoni@sos.state.nj.us

Administrative/ business contact: Eric Carlsson, 225 West State Street, PO Box 304, Trenton, NJ 08625-0304, (609) 943-4988, Fax: (609) 292-9897. Eric.Carlsson@sos.state.nj.us

Proposed Period of Performance: August 2011- December 2012

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#### **Technical Approach and Justification**

#### **Executive Summary**

The New Jersey Division of Elections integrated emailing and faxing of overseas ballots into the New Jersey Statewide Voter Registration System (SVRS) two years ago to comply with New Jersey State Law which also prepared the State for compliance with the MOVE Act; while this integration has moved the issuance of ballots forward there is still room for improvement. Specifically this research aims to prove that speed and efficiency can be increased in the ballot preparation and delivery process to Military and Overseas voters.

Our approach will upgrade our SVRS by leveraging current application functionality to sustain improved access for Military and Overseas voters for years to come. This approach will ensure that all county election offices use the functionality to speed delivery of ballots and provide centralized management, maintenance, and reporting.

County Clerks in all of New Jersey's 21 counties are committed to serving the UOCAVA voter population. Since 2007 the State Division of Elections has coordinated the ballot preparation process in the County Clerk offices through the SVRS. The SVRS is managed for the State of New Jersey by Hewlett Packard Enterprise Services (HP); the enhancements proposed in Phase One of this grant application will be developed and implemented by HP and become an integral part of our SVRS.

We propose a two phase project. Phase One will demonstrate that by integrating the ballot preparation process inside the SVRS we will not only achieve greater processing efficiencies but will also improve speed of processing voter requests which in turn should yield higher participation. Since Phase One focuses on the SVRS the other major component of this phase is to improve the UOCAVA reports and features in the SVRS; these improvements are listed in greater detail later in Appendix 1.

New Jersey understands that Idaho, Rhode Island, Maine, West Virginia and Connecticut all use the same ElectioNet platform for their Statewide Voter Registration Systems. Proving our hypothesis that we can increase UOCAVA voter participation by improving the SVRS will yield possible benefits to these other states using ElectioNet software.

Phase Two in our application is to request funding in support of our acquisition and implementation of an electronic ballot duplication system for our military and overseas citizens. Our goal is to make the processing of returned email ballots from UOCAVA voters more efficient without the additional burden of remaking, or manual duplication of potentially thousands of UOCAVA e-ballots.

#### Goals and Objectives Overview

The State of New Jersey is applying for this grant to conduct statewide research in our twentyone counties to provide UOCAVA voters with a more accessible, secure, and efficient process for requesting vote by mail ballots, and voting in federal, state, and municipal elections. With the assistance of the EASE grant, our proposed solution will improve UOCAVA voters' experience and give FVAP useful data comparisons showing the benefit of integrating the ballot generation process with the State's SVRS.

Specifically, New Jersey is addressing each mandate as required by UOCAVA, including

- Easing the registration and Vote By Mail ballot request process,
- Transmitting the ballot electronically,
- Providing UOCAVA voters with the opportunity to electronically track their ballot,
- Ensuring that ballots are transmitted a full 45 days prior to an election,
- Providing reporting on the data collected.

New Jersey's strategic approach allows this program to be sustainable and scalable, using technological innovation to deliver the best possible solution.

#### **Proposed Solutions**

#### **Research Module 1: Application Request Improvement**

Problem: UOCAVA voters experience failures associated with registration and ballot request

#### Solution: Tie UOCAVA request directly into Statewide Voter Registration System to speed and improve registration and ballot request success

#### Goals

- Reduce time determining voter eligibility and approving UOCAVA ballot request
- Increase timely voter feedback: auto response at each step of application and ballot submittal
- SVRS integration: ensures long term sustainability of UOCAVA solutions.

#### **Process Description**

- An online solution that integrates with the statewide voter registration database will be used to allow voters to complete the FPCA or state application via an online solution. This form will be made available in a consistent location on the State's website.
- When accessed, completed and returned, the form is matched against the statewide voter registration database to determine eligibility for absentee voting. Upon approval, the voter receives the appropriate instructions for the next steps of the election process.

• If the registration is handled outside the 45-day voting window, the voter will receive an email confirming the ballot application and status. Inside the 45-day window the email will include their ballot as an attachment which can be returned by mail, fax or email. Current New Jersey law does not allow for online voting.

#### Justification for Pursuing this Strategic Approach

The first step for a UOCAVA voter after general registration, which is required by all voters, is to identify himself or herself as a Vote By Mail (VBM) UOCAVA voter to the election official. New Jersey proposes to allow voters to submit their VBM request electronically and provide the voter with instant feedback that their ballot request has been received. The voter is entered into the SVRS and the system authenticates their VBM ballot application and prompts the County Clerk to send a reply to the voter indicating application status; if approved and within 45 days of the election that reply will include the ballot. New Jersey expects this will have a significant impact on voter participation rates since it is the application and receipt of blank ballot steps where UOCAVA voters may not complete the process because of the complexity of the existing process.

#### **Success Factors**

- Faster voter eligibility and UOCAVA ballot request processing
- Improved speed of communications with UOCAVA voters
- Increased Participation: Increase in UOCAVA ballots returned will be the true indicator of success.
- **Cost Savings:** Voters save handling costs of mailing form, election officials eliminate time-consuming tasks associated with paper VBM request process
- **Reduced Errors**: Online process reduces manual errors and secondary handling of VBM requests

#### Improve Services for UOCAVA Voters

- Provide streamlined application process for the ballot for UOCAVA voters by removing additional steps and providing immediate feedback of application status and next steps.
- Creates uniform statewide processes that can be used by all New Jersey counties through the existing SVRS network and system they have been using for the past four years.

#### Research Module 2: Email Ballot Access

#### Solution: Ballot Matching Integrated in SVRS.

Problem: Failure rates experienced by UOCAVA voters associated with ballot delivery

Goals:

- **Compliance**: Provide a full PDF HAVA compliant ballot to UOCAVA voters through electronic transmission
- Ballot Accuracy: Ensure all of the ballot styles, contests, and candidates are correct.
- **Reliability**: Ensure the availability and accuracy of the election remains in place for the full 45 day time period.
- **Participation**: Our estimation of the increase of successful ballot return rates for UOCAVA voters is 30%. We will demonstrate this by comparing to similar, previous elections.

#### **Process Description**

The ballot delivery method chosen by the State of New Jersey is to upload previously approved PDFs of the ballot into the SVRS. Providing a PDF uploader instead of a data import tool or a programmatic way of re-creating the ballots saves elections officials the burden of reviewing and approving the ballot content for each of their ballot styles a second time.

The concept of our PDF uploader is to upload all 600 PDF ballot styles into the SVRS based on the Municipality/Ward/District. The County Clerk will have the voter's correct ballot automatically attached to a personalized email sent to the voter. When the PDF ballot is returned to the Board the PDF must be translated to a scanable ballot; this currently is a manual transcription process.

#### Justification for Pursuing this Strategic Approach

Ballot delivery has proved to be one of the more difficult points for Election Officials serving their UOCAVA voters. 17% of the military requesting absentee ballots never receive their ballots. Service members may lose their ability to vote due to the remoteness of their location or inability to receive mail in a timely manner, particularly for voters who are deployed in remote and/or hostile areas.

#### **Success Factors**

- Compliance: Provide a fully HAVA compliant ballot to UOCAVA voters electronically.
- Accuracy: Ensure all 600 of the ballot styles, contests, and candidates are correct.
- **Reliability**: The proposed system changes, once tested, will force a repeatable workflow for the distribution and receipt processing of ballots in the SVRS.
- **Participation**: Higher percentage of ballots included in the final count due to lower error rates.

#### Improve Services for UOCAVA voters

• Provide a complete and full ballot solution for all UOCAVA voters, just as the voters in their home jurisdiction receive.

• Create uniform processes statewide.

#### Research Module 3: Secure Ballot Return and Tracking

#### Solution: HP enhancements to NJ SVRS

Problem: 81.1% of UOCAVA ballot failures occur in the return of ballots

#### Goals

- **Compliance**: Provide a secure email return system which will allow Voter Tracking of Ballot Status.
- **Reliability**: Ensure the availability and accuracy of the election remain in place for the full 45 day time period
- **Participation**: Higher percentage of ballots for comparison to final count of actual election, due to lower error rates.
- Simple Receipt Tracking: Allow voters to track their ballot online at each stage.

#### **Process Description**

- After their application is approved the voter is provided with their unique ballot style based on their home registration municipality, ward and district.
- Provide voter with clear instructions on how to vote and return ballot.
- Provide voter with the ability to electronically return their marked ballot.
- Provide web access to track ballot status.

#### Justification for Pursuing this Strategic Approach

Ballot return is the single greatest point of failure in the entire UOCAVA process. With FVAP reporting that 81% of the votes not counted are due to ballot return failure, it is crucial that secure, electronic submission be an option for ballot return. This removes time and logistical barriers, while allowing for an auditable paper trail.

#### **Success Factors**

- **Compliance**: Specific return instructions have to be entered once by each County to give UOCAVA voters the correct Board address for their ballot return.
- Accuracy: Ensure return information is correct and complete for voter's home district.
- Efficiency of ballot return: UOCAVA voter's home county Board of Election return information is automatically tied to their home ballot.
- **Participation**: Higher percentage of ballots returned due to ease of receiving and returning the same ballot the voter would have seen in their home jurisdiction.

#### Improve Services for UOCAVA voters

• Provide a complete and full ballot solution for UOCAVA voters.

- Provide tracking updates to voter to notify of ballot status.
- Create replicable processes that can be used for other jurisdictions.
- •

#### Phase 2: Auto Duplication of Returned Ballots

#### Our working hypothesis for the auto-duplication phase:

An automated method to remake or duplicate ballots will significantly reduce the time to prepare ballots for tabulation, in turn ensuring that local election officials are not burdened by the increase of UOCAVA ballots expected by the overall program.

- o Reduce costs associated with MOVE Act compliance
- Reduce time to prepare and process incoming ballots
- Encourage all counties to participate in the program.

The selected vendor will research the feasibility of an auto-duplication system that does not require a bar code on the ballot. Based on the outcome of that research the State of New Jersey will provide a turn-key, auto-duplication system to every participating county in the State. With the auto-duplication system our election boards will not be significantly impacted by the expected growth in our UOCAVA ballot returns. Since this technology is currently not in use it is a focus point of our research to demonstrate that a returned PDF of a voted ballot can be duplicated for entry into our Board of Election tabulation machines.

#### Goals

- The primary goals of this project phase are to increase the State of New Jersey's UOCAVA voter participation, without the increased costs associated with ballot processing and remaking of the growing number of email delivered ballots.
- Develop and deploy technology that will provide auto-duplication of returned e-ballots.
- Reduce our overall long term costs of managing and supporting MOVE Act compliance and UOCAVA services.

#### Key objectives for this project phase include:

- Improve ballot access for the State of New Jersey's UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials.
- Provide a means for the State of New Jersey to tabulate email delivered ballots without expensive and time consuming manual ballot duplication by our Election Boards.
- Provide an overall long term cost-effective solution for the State of New Jersey elections.
- Provide analytical information regarding the usage of the auto-duplication solution.

#### **Process Description**

Research is needed to solve some key issues and obstacles in order to make the auto transcription/ auto duplication or ballot remaking solution a reality. Summarized below is an overview of our proposed research and development of the auto-duplication system and the prospective key features which offer us the specific tools to meet our goals and objectives for this grant. A key component of this phase will be to investigate the areas that will be required for an automated ballot duplication system. The selected vendor will work with the State to analyze the various points of integration and highlight the state specific issues surrounding ballot duplication. These issues include, but are not limited to:

- 1. Differences in page dimensions Ballots are typically printed on an 8.5" x 14" piece of paper. We cannot depend on voters to have 8.5 x 14" paper stock in their home printer so there has to be a way to convert between the two page dimensions. One may propose the idea of scaling down the original ballot style to fit in an 8.5 x 11" piece of paper, but due to regulations, the print on the scaled down ballot would be small and hard to read. If the PDF is presented to the voter as an 8.5 x 14" PDF, the printout for the voter can vary greatly depending on their personal preferences and settings. The best solution would be to have the PDF uploader "break up" the ballot into multiple pages. However, given the non-linear horizontal alignment of the ballot content, this is a significant issue.
- 2. Auto Duplication: Setup Assuming even if the ballots returned from voters come in a consistent format, translating their selections on to a scanable ballot is a very difficult process. There are three main steps involved in this process. First, the original PDF ballot must be loaded into the software and interpreted to understand where the selection ovals (or arrows) are positioned. Ideally, this would be possible through advanced image recognition. If this is not possible, a user interface will be necessary for an elections official to highlight the locations of each oval (or arrow) on the ballot for each ballot style. Research is needed to determine if and how image recognition can be used to automate this setup process along with its associated costs.
- 3. Auto Duplication: Mapping Second, a program must be written to map or associate the markings on the voter presented PDF to the original ballot PDF. Because the two PDFs will differ in layout (assuming scaling down is not an option), election officials must map ballot content between the two PDFs to ensure the voter's markings are translated correctly. Again, this will either be a manual process performed by an election official using a user interface, or it will be automated using image recognition. Research is needed to determine if a sequential order of ballot content will be reliable enough to map the content between the two PDFs. In order to use this method, the software must be able to reliably determine the start and end points of each contest on each ballot. Variables which may cause inconsistency here will be accidental voter markings, page folds, or other unexpected information on the returned ballots.
- 4. Auto Duplication: Marking Third, a translation program must be written to scan the voter returned ballot, detect their selections, and mark the selections on the machine

readable PDF. The major obstacle in this step is in detecting the voter's selections to determine their intent accurately. Once the voter selections are determined, the software will use the mapping relationships created in the previous step to correctly mark the machine readable PDF. The marked PDF is then printed on ballot stock to be tabulated.

### Justification for Pursuing this Strategic Approach

We project that by fully deploying this new technology, we will dramatically streamline and speed the balloting process for our UOCAVA voting population, as well as save significant staff time complying with the new mandates of the MOVE Act.

- We anticipate that County Clerks' staff time complying with the new MOVE Act requirements will decrease.
- New Jersey's return rates are similar to the national ballot return rates during a Presidential year but fall sharply in non-Presidential years.

National Absentee Ballot Return Rates:

91%= General Population

67%= UOCAVA voters

• We expect to see a significant increase in returned ballots from our UOCAVA voters due to this implementation. The proposed auto-duplication solution may reduce duplication time by over 60%.

### Sustainability

The State of New Jersey has designed this project to meet the following criteria:

- Low long-term costs -employing a fixed cost system our long term costs are minimal. .
- To ensure long-term sustainability, the prospective auto-duplication system can be used for a wide variety of ballots that require duplication, thus widening the base of uses for the auto-duplication system.

### Scalability

We are projecting a significant increase of our UOCAVA ballot returns and thus need to acquire an automated ballot duplication system to increase efficiency of processing these ballots. Once operational the system could not only scan and print over 17,000 tabulated ballots in New Jersey but the solution could serve as a model to serve UOCAVA voters in other jurisdictions as well.

### **Success Factors**

- Accuracy: Elimination of hand transcribing email ballot will insure accuracy.
- Efficiency of ballot processing: UOCAVA voter's ballot counted along with regular Vote By Mail ballots; decreased time spent at County processing UOCAVA ballots.
- Cost savings: Elimination of costly manual transcriptions.

### Additional Components of New Jersey FVAP Program

### **Baseline Metrics**

# Estimation of reduction in failure rates in each of the various stages of the absentee voting process:

- 1) Registration- 30% reduction in failure rates
- 2) ballot request-20% reduction in failure rates
- 3) ballot delivery-30% reduction in failure rates
- 4) ballot marking-no change
- 5) ballot tabulation-60% time savings, increased accuracy
- 6) ballot return verification-30% reduction in failure rates

### Security Measures

An election solution - the infrastructure (hardware, networks, and software) and the actual data (voter registration information, and, where applicable, ballots cast and tabulated results) - must be protected from both intentional and unintentional interference. Our vendor of choice has demonstrated implementation of measures to protect users' personal identifying information and any transmitted election material. HP adheres to the National Institute of Standards and Technology's (NIST) guidelines for encryption, threat modeling, physical server security, and tamper-detection monitoring. These measures enable us to identify suspicious activity and anticipate any potential threats.

### Schedule and Milestones

- 1) Select ballot auto-duplication vendor in October 2011.
- 2) Ballot auto-duplication research and testing October 2011-May 2012
- 3) Implement HP enhancements into SVRS in December 2011.
- 4) Train County Election offices in new processes in December 2011
- 5) Implement enhancements to State website (njelections.org) in December 2011
- 6) Pilot ballot auto-duplication in June 2012 Primary.
- 7) Tabulate results from June 2012 Primary and compare to 2008 and 2010 results
- 8) If auto-duplication is proven roll out to remaining counties July/August 2012.
- 9) Repeat process for November 2012 Election
- 10) Submit final reports on research results December 31, 2012.

### Reporting

Comprehensive reporting has always been integrated into the SVRS; we now plan on enhancing this functionality to provide more detailed reporting of UOCAVA activities. Details of reports that will be added as part of this research are contained in Appendix A.

### **Data Analysis**

Upon the conclusion of all elections, data will be analyzed to measure the effectiveness of each election by comparing statistics to 2008 and 2010.

### **UOCAVA Voter-Accessible Tracking of Ballot**

Voters have the ability on the Division of Elections website to track their ballot progress.

• Application status, Ballot sent, Ballot received, Ballot accepted.

### Management Approach

The goal of this research is to demonstrate that by improving the local election officials tools, UOCAVA processing will quickly improve and voters will receive more timely feedback resulting in higher participation.

Support Team for Research:

- 1. State Personnel: Robert Giles, Director of Elections; Michael DiSimoni, Deputy Director of Elections; Patrick Parmelee, SVRS Analyst.
- 2. Contractor: HP. We have worked with our chosen provider, HP, to tailor this research plan to meet the needs of our UOCAVA voters and comply with Federal and State laws and regulations.
- 3. Contractor TBD to research and develop a PDF returned ballot auto duplication solution to make e-mail delivered ballots scanable into a ballot reader.

### Analysis and Measurement of Current Processes

### Current Process for UOCAVA Vote by Mail Registration and Ballot Delivery

- FPCA or State Absentee Request
- U.S. Postal Service Delivery of Ballots
- Expedited Delivery of Ballots (primary or follow-up method)
- Manual PDF Ballot Process on request
- Access to FWAB via State link, FVAP or other site

### **Baseline Data**

We will compare our 2012 elections results against the data below. We will have the benefit of being able to implement uniform statewide processes and procedures which will enable us in future years to gather data for ongoing comparisons and to study the effectiveness of processes improved due to the EASE grant.

County	UOCAVA ballots sent (2008 General)	UOCAVA ballots returned (2008 General)	UOCAVA ballots sent (2010 General)	UOCAVA ballots returned (2010 General)
ATLANTIC	30	16	20	11
BERGEN	2795	1 <b>986</b>	1901	530
BURLINGTON	989	748	788	156

CAMDEN	879	438	553	158
CAPE MAY	196	157	156	42
CUMBERLAND	333	170	107	23
ESSEX	652	547	116	63
GLOUCESTER	468	290	402	65
HUDSON	1446	502	764	1 <b>78</b>
HUNTERDON	340	274	278	64
MERCER	1 <b>186</b>	806	211	77
MIDDLESEX	1643	1273	1254	322
MONMOUTH	1 <b>498</b>	1249	1351	264
MORRIS	1228	1008	905	178
OCEAN	1419	1015	788	232
PASSAIC	857	586	664	123
SALEM	103	78	74	15
SOMERSET	961	785	615	149
SUSSEX	331	200	207	50
UNION	1 <b>168</b>	822	501	225
WARREN	196	120	62	8
Total	18718	13070	11717	2933

### Justification to Modify Current Processes

- 1. Timeliness and Delivery: Seventeen percent (17%) of the military requesting absentee ballots never receive their ballots.
- 2. Accuracy: Clerical errors or outdated voter address information may result in wrong PDF ballots being sent to the voter, increasing possible spoiled ballots and/or late voting.
- 3. Time to Vote: One of the primary challenges faced by UOCAVA voters is the length of time required between registration as an overseas voter and the time of actual balloting. Because of the MOVE Act, starting in 2011, FVAP recommends that UOCAVA voters submit a Federal Post Card Application to their state of legal residence in January of each year, and again each time there is a change in the voters' mailing address, email address, or fax number. By automating the UOCAVA ballot request process, and allowing registered voters to receive and return their ballots via email, we hope to reduce the time required for UOCAVA voters to complete and return their ballot, increasing ballot completion rates.
- 4. Cost Effectiveness: Overnight and Expedited delivery is costly and does not always ensure receipt.
- 5. FWAB Limits: Voter not able to vote complete ballot only Federal Contest Write-ins. No assistance provided in the form of candidates, contests, etc.
- 6. Disenfranchising Voters: Our UOCAVA voters need a complete, full and timely ballot and access to voting instruction and candidate information.

### **Proposed Project Plan**

Following are the research options that New Jersey is proposing for use in the 2011 and 2012 elections and beyond to support UOCAVA Voters.

### Research Module 1: Application Request Improvement

### Solution: Tie UOCAVA request directly into Statewide Voter Registration System.

### The Process

- A module in the statewide voter registration system will be developed / used to allow County clerks offices to accept the FPCA or state applications via an email request from the voter. An application form will also be made available on the State website.
- Once the form is accessed, completed and returned, it will be matched against the statewide voter registration database to determine eligibility for absentee voting. Once approved, the voter will receive the appropriate instructions for the next steps of the election process.
- If the registration is handled outside the 45 day voting window, the voter is told when the election open date will occur. If received during the 45 day election window, the voter will receive an email containing their correct and full ballot.
- By automating the UOCAVA vote by mail ballot request process and allowing registered voters to receive their ballot by email the time required to complete and return a ballot will decrease and ballot completion rates will rise.

### Goals

- Reduce time from request to voting
- Streamline process for Election Official and Voter
- Decrease time to process request, thus making the voter eligible for voting sooner
- Seamlessly integrate new MOVE Act mandate requiring UOCAVA request each year

### Identification of Each Process and the Elements Related to the Processes

- 1. Complete Integration with New Jersey's SVRS.
- 2. Train all New Jersey county election officials in new statewide process.
- 3. Public Awareness campaign to notify voters of new system.
- 4. Reporting of final results.

### Performance Indicators

- Increased Participation: Increase in UOCAVA ballot returns.
- **Cost Savings:** Voters save handling costs of mailing form, Election Officials eliminate manual tasks associated with paper absentee request process and manual matching of PDF ballots to voter email requests.
- **Reduced Errors**: Automated process reduces manual errors and secondary handling of absentee requests.

### **Projections of the Effectiveness of Modifications**

- Implementing an email balloting system with automated ballot matching will:
  - Increase the speed of County Clerks processing applications and sending out PDF ballots.
  - Increase the percentage of ballots successfully returned by UOCAVA voters.
  - Reduce the failure rate UOCAVA voters experience between absentee ballot request and blank absentee ballot delivery.

### **Performance Measurement**

• One measurement with this project is to determine whether eliminating the delays from ballot request to approved ballot delivery will increase UOCAVA ballot return rates.

### **Research Module 2: Email Ballot Delivery**

### Solution: HP integration into NJ SVRS

### The Process

The key challenge faced by UOCAVA voters is the length of time required for absentee ballot delivery and return. Data from EAC and FVAP sources indicates that the absentee ballot return rate for UOCAVA voters in the 2008 General Election was only 67%, compared to 91% for the general population. By automating the UOCAVA ballot delivery and return process, this enhancement aims to reduce the time required for UOCAVA voters to complete and return their ballot, increasing ballot completion rates and reducing failure rates for such voters.

### Goals

- Compliance: Provide a full PDF HAVA compliant ballot to UOCAVA voters.
- Ballot Accuracy: Ensure all of the ballot styles, contests, and candidates are correct
- **Reliability**: Ensure the availability and accuracy of the election remain in place for the full 45 day time period
- **Participation**: Higher percentage of ballots included in the final count due to lower error rates. We derived this by comparing to similar, previous elections. Our estimation of the increase of successful ballot return rates for UOCAVA voters is 30%.
- Simple Receipt Tracking: Voters can track a ballot online at each stage in the process.

### Identification of Each Process and the Elements Related to the Processes

- Give voters access to voting materials, county-specific instructions, and any other materials to help the voter (candidate statements, voter guides).
- Provide voter with instructions and context-specific help.
- Voter package will include all required documents needed by the county, including:
  - Envelope templates, Oath and affirmations, Return package instructions.

### Projections of the Effectiveness of Modifications

- Implementing integrated ballot matching and preparation is projected to:
  - Increase the speed and accuracy a UOCAVA voter receives their ballot.
    - o Increase the percentage of ballots successfully returned by UOCAVA voters
    - Reduce the failure rate UOCAVA voters experience between blank absentee ballot delivery and absentee ballot return.

### **Performance Indicators**

- Compliance: Provide a full PDF ballot to UOCAVA voters.
- Efficiency of ballot creation: In NJ the ballot is already created in PDF format for the domestic Vote by Mail voters; this same PDF will be delivered to the voter; no extra work is involved.
- Advanced Availability: Ensure the availability of the election during the full 45 day voting period
- Accuracy: Ensure all of the ballot styles, contests, and candidates are correct
- **Reliability**: Ensure that the availability and accuracy of the election remain in place for the full 45 day time period
- **Participation**: Higher percentage of ballots included in the final count due to lower error rates. We derived this by comparing to similar, previous elections.
- Simple Receipt Tracking: Voters can track their ballot online throughout the process.

### **Research Module 3: Secure Ballot Return and Tracking**

### The Process

Since 81.1% of UOCAVA ballot failures occur in the return of ballots our solution will mitigate failed returns by insuring the SVRS customizes each voter's return email cover sheet with prepopulated fax numbers, emails, physical addresses and contact information for that specific voters' County Board of Election. Also with the <u>www.njelections.org</u> "ballot status lookup", the military and overseas voters will have the ability to view their ballot status at their convenience. **Goals** 

- Simple Receipt Tracking: Voters can track their ballot online throughout the process.
- **Compliance**: Automated voter specific return instructions are entered once by each County, UOCAVA voters will be automatically matched to their Board for ballot return.
- Advanced Availability: Availability of the election during the full 45 day voting period
- Accuracy: Ensure all return information is correct/complete for the voters' home district.
- **Reliability**: Ensure the availability and accuracy of the election remain in place for the full 45 day time period
- Efficiency of ballot return: UOCAVA voter's home county Board of Election return information is automatically tied to their home ballot.

• **Participation**: Higher percentage of ballots returned due to ease of receiving and returning the same ballot the voter would have seen at their home jurisdiction.

### **Performance Indicators**

- Accuracy: Ensure all of the ballot return information is correct for the voter's home County Board of Election, this information will be maintained by each County Board and automatically matched to each voter based on the voter's municipality, ward and district.
- **Participation**: Higher percentage of returned ballots for comparison to final count of actual election due to lower error rates, and increased ballot return rates. We derive this by comparing to similar, previous elections.

### **Projections of the Effectiveness of Modifications**

- Implementing email ballot access and return is projected to:
  - Increase the percentage of ballots successfully returned by UOCAVA voters
  - Reduce the failure rate UOCAVA voters experience between blank absentee ballot delivery and absentee ballot return

### Phase 2: Auto Duplication of Returned Ballots

### The Process

A ballot auto-duplication system will enable our counties to aggressively push for greater UOCAVA participation while not being concerned about the potential bottlenecks and backlog typically associated with manual duplication. Since online voting has not been widely embraced at this time the concept of PDF scrapping is vital. We can take hundreds of email ballots and have the PDF automatically remade and ready to be scanned as if it were a returned paper ballot.

Since New Jersey has not, at the time of grant application, selected a vendor to perform the autoduplication solution we can only speak to the qualifications we will be looking for when selecting a vendor. Primarily we will choose a vendor who has proven experience supporting election management and administration. A clear understanding of technologies available and PDF manipulation and duplication are essential qualifications. Many of the vendors who participated in last year's FVAP pilot program are currently researching our proposed concept.

### Goals

- Streamline processing of returned PDF ballots
- Efficiency of ballot return: auto duplication and tabulation preparation.
- **Participation**: Efficient ballot processing allows faster feedback to UOCAVA voter; a positive experience with emailing a ballot will result in higher future participation.

### Identification of the process and elements of the process

### Development

The development of an auto-duplication system will employ current technologies and expertise to properly scan a marked PDF of the ballot from software scanning tools, print the ballot in the form and condition our individual County Election Boards require for successful tabulation of the remade ballot.

### **Interfaces to External Systems**

Vendor neutral architectural design is expected to be implemented with the proposed autoduplication system. The proposed system will handle structured data exports (.txt, and .csv, .edx, and .xml) from the major election management and ballot tabulation system vendors.

### Data Import/Export Interface

There is a wide range of tabulation systems that any auto-duplication systems must work with. Our proposed system will allow customizations to Counties without compromising the core foundation of the application.

### Flexible Ballot Display and Print Capability

The auto-duplication system is expected to support both standard US (8.5x11) and European (A4) sizes. Ballots printed using the New Jersey PDF ballot delivery tool use standard computer printer paper sizes. Voters will print a blank PDF ballot to be marked by hand. Ballots are downloaded to the voter's computer in a PDF format and are sized to print on any home printer.

### **Ballot Imaging**

The PDF ballots that are returned will be scanned through the prospective auto-duplication system and be stored in an image reader to be viewed online or on-demand.

### **Ballot Association**

The prospective auto-duplication solution will enable the local Boards of Election to track and identify each PDF ballot to its corresponding scanable ballot. This would be done by printing related identifiers on associated ballot pairings; the identifiers will be determined by the county.

### Reporting

The prospective auto-duplication system will track ballot events to offer a number of valuable statistical reports. Examples of some of the reports provided by the proposed system are:

• Ballots submitted into the auto-duplication system, Scanable ballots produced, Autoduplication processing speed, Time Savings over manual duplication.

### **Performance Indicators**

- Processing efficiency: 60% time reduction in processing
- Accuracy: zero defects in transcription
- Reliability: proven technology through vigorous testing

### **Projections of the Effectiveness of Modifications**

- Implementing the auto duplication of returned ballots will save County Election Boards significant time processing e-ballots.
- The auto-duplication solution is designed to reduce manual ballot duplication time by up to 60%. This will be a substantial savings as the number of UOCAVA voters increase.

### **Additional Management Approach Features**

### **Measurement of Performance**

Increase in percentage of ballots successfully returned by UOCAVA voters will be measured by comparing UOCAVA return rates from the most recent (similar) election prior to this program, to the 2008 and 2010 General Elections and performing a statistical analysis of whether any change in ballot return has been statistically significant. Reduction of staff, time, and costs associated with ballot remaking will be measured by comparing the same against manual transcription.

### Milestones

Milestones during the EASE grant time period:

- 1) Select ballot auto-duplication vendor in October 2011.
- 2) Ballot auto-duplication research and testing October 2011-May 2012
- 3) Implement HP enhancements into SVRS in December 2011.
- 4) Train County Election offices in new processes in December 2011
- 5) Implement enhancements to State website (njelections.org) in December 2011
- 6) Pilot ballot auto-duplication in June 2012 Primary.
- 7) Tabulate results from June 2012 Primary and compare to 2008 and 2010 results
- 8) If auto-duplication is proven roll out to remaining counties July/August 2012.
- 9) Repeat process for November 2012 Election
- 10) Submit final reports on research results December 31, 2012.

### **Financial Management**

This project will include financially-based milestone deliverables. Payment to the vendor will be due upon successful completion of predefined acceptance tests for each milestone.

### **Risk Management**

Risks for this project will be maintained using a risk register, with identified risks listed along with impact, probability, and mitigations. Since we are incorporating much of our EASE grant improvements into our existing SVRS assess overall risk to be very low. We of course will vigorously test all improvements in our test SVRS system prior to adding them to our live SVRS.

### Conclusion

Since New Jersey does not allow online voting, our goal for this research is to prove that the UOCAVA voter participation rate can be positively impacted by streamlining email balloting and simplifying the administration of this process inside the New Jersey SVRS.

Since the SVRS is used daily in all 54 of the States' Election Offices, (County Clerks, County Boards and County Superintendents) it makes practical sense to build upon this platform to

improve service to our Military and Overseas Voters. Rather than introduce another piece of software to train and support remotely it is more sustainable to add to a system we are already committed to supporting. By taking the basic UOCAVA features now contained in the SVRS and fully building out that software module, both our 21 County Clerks (who issue the ballots) and our 21 County Boards (who receive the ballots) will have the ability to better serve the UOCAVA population.

It is our hope that by further automating the PDF ballot delivery, the faster return service to the UOCAVA voter from application to ballot mailed will increase the likelihood of the ballot getting to them with ample time to vote and return. Some overseas email requesters will physically mail their return ballot, making the expedited delivery of the PDF ballot essential.

By partnering with HP, our existing SVRS software support vendor, we have mitigated any risk involved with training a new vendor on NJ laws and practices. In addition by integrating the entire process in the SVRS we have also mitigated the risk involved in transferring registration data to a separate ballot management system. By integrating this functionality inside of the SVRS we have ensured its scalability and sustainability. Scalable because the entire state will be using the same platform and we can easily add to this module in the future should laws and requirements change. Sustainable because the UOCAVA ballot system becomes an integrated part of our State SVRS.

By adding rich additional features to our reporting of UOCAVA voter activities we will be able to provide all jurisdictions and the Department of Defense with valuable data and trends on this focused population. These reports will be an integrated part of the SVRS and will remain long after the research period for this grant ends. Sustainability is crucial to us because we would not ask our voters or county officials to implement a solution on a trial basis; once these improvements go live in SVRS they are permanent and though they may be modified as experience through use may dictate, they will become the normal course of business in the State.

To avoid confusion we have always directed our voters to our website, www.njelections.org; it is our belief that voters presented with too many options may not remember where to go for what service. By providing all of our voter services at one location it eases the burden on the citizen who is trying to either check their registration, find their polling place or figure out how to apply for a ballot.

Through this research project we hope to not only demonstrate an increase in UOCAVA voter participation but plan to build a permanent, robust tool for those voters and the county election officials who support them.

State of New Mexico



Response to

Defense Human Resources Activity Federal Voting Assistance Program (FVAP)

### Volume I Technical Proposal

Catalog of Federal Domestic Assistance Number: 12.217

## BAA number: H98210- BAA-11- 0001 TITLE:- Proposal for Statewide Improvements to UOCAVA Voting Procedures for the State of New Mexico

CAGE Code.<sup>(b)(4)</sup> DUNS Number: <sup>(b)(4)</sup> Identity of Applicant: State of New Mexico, Secretary of State

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Period of Performance: August 2011 to December, 2012

July 13, 2011

Submitted by: Bobbi Shearer, Director, Bureau of Elections

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### **Technical Approach and Justification**

### 1. Executive Summary

This application is presented by State of New Mexico to request funding in support of our acquisition and implementation of an electronic ballot delivery system for use by county election officials to serve our military and overseas citizens. Our goal is to provide greater access to online tools in order to make the voting process easier and simpler for our UOCAVA voters.

The State of New Mexico recognizes that UOCAVA voters traditionally have a lower voting percentage than domestic voters. The MOVE Act was passed to narrow the gap between UOCAVA and domestic voters. Allowing County Clerks to use an electronic registration and ballot delivery system will ensure that our State will be in full compliance with the MOVE Act while eliminating the gap between UOCAVA and domestic voters.

New Mexico has not preselected a vendor for this grant. The state has previewed a number of electronic programs and will seek requests for proposals from qualified vendors to develop and deploy a comprehensive set of Uniformed and Overseas Citizens Absentee voting Act (UOCAVA) voter services for New Mexico. The selected vendor will be requested to extend existing technologies for online identification of our voters, classification of voters under current New Mexico election law, voter registration assistance, and logging the voter usage of online voter services.

The resulting solution will enable New Mexico to provide complete voter services to our UOCAVA voters. County clerks will be able to provided full services to voters such as voter registration links, absentee ballot notifications, ballot delivery, and ballot tracking. The State and individual Counties will be able to provide complete usage data and reporting of each voter service.

The State of New Mexico is grateful for the opportunity to apply for the EASE Grant. We look forward to working with the Federal Voting Assistance Program (FVAP) and contributing to FVAP's one-stop portal for millions of UOCAVA voters. It is our desire to join with the FVAP to ensure our military and overseas voters are able to cast their ballot, and have it counted, from anywhere in the world as easily as if they were voting in person at a polling place.

### 2. Goals and Objectives

New Mexico will seek a robust and reliable solution that will not only meet our immediate MOVE Act requirements, but will deliver a long term solution capable of expanding to meet our current and future goals and objectives.

The primary goals of this project are to increase New Mexico's UOCAVA voter participation base, as well as gather and provide comprehensive data detailing UOCAVA voter activities. More specifically;

- Develop and deploy new technology that will not only integrate with the existing voter database systems, but will also allow complete electronic voter services for our UOCAVA voters. Our goal is to deliver an electronic system which will include, but is not limited to, voter registration links, ballot request, ballot delivery, and ballot tracking.
- Develop and deploy innovative data tools to provide comprehensive statistics gathering of the UOCAVA voter services and activities for each election
- Reduce our overall long term costs of managing and supporting MOVE ACT compliance and UOCAVA services.

Key objectives for this project include:

- Provide tools for citizens of New Mexico to register to vote, determine their UOCAVA eligibility, complete an absentee ballot application and complete an absentee ballot if eligible.
- Improve ballot access for New Mexico's UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials.
- Provide a solution that New Mexico can build upon in the future as legislation catches up with the available technology.
- Provide an overall long term cost-effective solution for New Mexico elections.
- Provide analytical information regarding the usage of the solution.

To successfully meet the above stated goals and objectives for New Mexico the resulting solution must offer:

- A Reliable, Proven System
- Improve the Voting Experience for Our Voters
- Reduce the Failure Rates of UOCAVA Voters

This proposal has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas of focus are:

- Voter Registration
- Ballot Delivery
- Ballot Return

Historically, the biggest challenge in UOCAVA participation is slow ballot delivery and return. This grant will enable us to deliver new initiatives and technologies to meet our goal of eliminating the gap between our domestic absentee and UOCAVA voters.

Grant funding will allow us to provide voters with an intuitive process to electronically register and receive notification of ballot availability. In addition it will greatly improve the speed by which ballots are delivered to and from our UOCAVA voters. Streamlining this process will reduce the failure rates of UOCAVA voters.

### Provide a UOCAVA Solution Capable of Advancing with Technology

### Save on Costs and Overhead

We expect not to need to acquire additional IT personnel, purchase or maintain any server equipment, spend time developing and testing software, or worry about managing updates. Additionally, when an election drives heavy voter traffic, we expect not to encounter limitations due to pricing plans or server resources, nor incur extra charges due to high bandwidth usage.

### **UOCAVA Improvement Projections**

We project that by fully deploying new technology, we will dramatically streamline and speed the balloting process for our UOCAVA voting population, as well as the save significant staff time complying with the new mandates of the MOVE Act.

- We anticipate our ballot return rate will improve by well over 50% with the goal of eliminating the ballot return gap between UOCAVA and domestic voters.
- We anticipate UOCAVA voter registration will increase by over 35%
- We anticipate that our UOCAVA voter participation rate will increase by over 35%
- We anticipate the percent of ballots delivered to ballots received will climb by over 40%.
- We anticipate voter confirmation (ballot tracking) will climb by over 75%
- We anticipate that our UOCAVA statistical reporting metrics and data aggregation tools will dramatically improve, thus enhancing our overall data metric reporting by over 75%.
- We anticipate that our staff time complying with the new MOVE Act requirements will fall by over 60%.

Ballot return rates are estimated to be similar to the national ballot return rates listed below:

Absentee Ballot Return Rates:

- 91%= General Population
- 67%= UOCAVA voters

The key metric for this State is to improve the ballot return rate for UOCAVA voters by at least 50% over the next election cycle, and moving towards future goal of a zero gap between UOCAVA voters and domestic voters by 2016.

### The Proposed New Mexico UOCAVA System

The FVAP funding will ensure New Mexico is able to offer a seamless process to register electronically, receive notification of ballot availability, access the ballot electronically, and dramatically improve the ballot return rate.

Summarized below is an overview of our proposed system and its key features which offer us the specific tools to meet our goals and objectives for this grant.

### - Voter Specific, On-Demand Ballot Lookup

The system should offer an electronic voter specific ballot lookup. Voters from anywhere in the world can access their specific ballot electronically. This is expected to eliminate the need for our staff to manually send paper ballots individually to each registered UOCAVA voter.

### - Online Federal Postcard Application (FPCA)

The system should feature options for a voter to electronically complete and submit the FPCA registration forms to ensure the UOCAVA voter successfully registers and can vote a qualified absentee ballot.

### - Interfaces to External Systems

The system should easily interface with external systems.

- Data Import/Export Interface

The system should support customization and existing unique data structures to allows delivery to these types of customizations to localities without compromising the core foundation of the application.

### – Customizable Ballot Packages

The system should delivers a voter's ballot in a return package along with relevant and required documents such as instructions, oath of voter, and return envelopes. Customizable return packages will enable the Counties to meet federal, state, and local delivery requirements.

- Flexible Ballot Display and Print Capability

Voters should have the option to print a blank PDF ballot to be marked by hand. Ballots should be downloadable to the voter's computer in a standard PDF format and are sized to print on any home printer.

### - Ballot Tracker Module

UOCAVA voters should be able to return to a website to monitor the status of their ballot. The system should provide the ability to include multiple tracking dates and/or messages in our voter registration file. It should displays voter specific tracking information from our voter registration file. Absentee ballot request, ballot access, and returned ballot dates are examples of some of the tracking dates that we may choose to display to the voter.

### - Accessibility Qualifications

The system should be federally reviewed and approved by the U.S. Department of Health and Human Services and Section 508 reviewed and approved. It should meet the Web Content Accessibility Guidelines (WCAG) 2.0 specifications where possible.

### – Multilingual Support

The system employed should allow for multi-lingual or single language ballot displays. Ballot data and on-screen instructions should be managed by a translation system.

The system should track voter events to offer a number of valuable statistical reports. It should track the number of visitors and other statistics for our jurisdiction.

### - Ballot Delivery

The system should provide options for ballot delivery to our voters, including mail, fax and email ballot return packages that include all of our required documents.

### - Auto-Duplication and Direct Tabulation Ready

We expect to see a significant increase in returned ballots from our UOCAVA voters due to the availability of the proposed system to all of the state's election jurisdictions.

### - Protect our voter's privacy and information

The security of voter information and election data is one of our most important concerns and will expect the vendor to understand that as well, by protecting the voter's privacy, as well as our election data.

The system must comply with federal and state elections laws and continue to meet the laws of federal and state elections rules.

### - Help Desk and Support Statistics

The vendor chosen should provide 24/7 support during elections and be available for assistance when needed.

### Schedule and Milestones

The phases of this project would consist of documenting our requirements to allow for the configuring of the ballot delivery system. During this phase, the vendor will perform the following tasks that allow us to identify our business requirements as they pertain to electronic balloting:

**Requirements Gathering** 

- Provide demonstrations of the ballot delivery tools
- document our business and technical requirements
- Identify any election file import requirements
- Identify any onscreen instruction requirements
- Identify user roles and associated permissions for the ballot delivery and return tools
- Identify Return Ballot Packages and custom ballot package form requirements
- Identify requirements for election set-up and county inheritance of statewide data, when applicable

The Planning/Development phase consists of the following activities:

- Analyze the results from requirements gathering and determine configuration
- Configure the tools to address election file import requirements
- Develop onscreen instruction requirements based on requirements
- Setup user roles and associated permissions based on identified requirements
- Create Return Ballot Packages and custom ballot package forms
- Setup the tool to support statewide elections set-up and county inheritance of statewide data (as appropriate)

The testing phase will consist of performing the following activities:

- Conduct a test pilot in the production environment of the system
- Conduct acceptance testing procedures to ensure that the requirements identified in the requirements phase are satisfied
- Perform remediation configuration activities on the system to address any issues/problems uncovered during the pilot test exercise
- Develop a Test Report that documents Acceptance Test procedures and resulting using the pilot test users

Project Phase / Milestone

- Initial Meetings
  - Request for Information
  - o Determine point of contact and escalation (roles/responsibilities)

- Formalize Requirements
- o Sign-off of Requirements Documents
- Configuration (and Customization)
  - o Administration Configuration
  - o Setup jurisdiction contact information
  - o Core Configuration
  - o Online Ballot Instructions
  - o Ballot Package (Mail, Fax, Email) Completed
- Email Notification to Voter
  - o Discuss and verify email notification process
  - o Define PIN Generation Process
  - o Discuss Email Reporting (what and when)
  - o Formalize notification workflow
- Discovery and Analysis (import data)
  - o Upload VR Data
  - o Upload and Import Election Data
  - o Analyze data for completeness
  - o Proof Election Data Mapping
- Internal Testing
  - o Verify election ballot data
  - Verify ballot delivery settings
  - o Verify county page content and links
- Initial UAT
  - o Conduct UAT Prep Meeting
  - o Conduct Initial UAT Requirements and Functionality Walk-through
  - Send UAT results and issue tracking XLS
  - o Get UAT results confirmation and acceptance
  - o Address initial UAT gaps
- Final UAT
  - o Schedule Final UAT Meeting
  - o Conduct Final UAT Requirements and Functionality Walk-through
  - o Send Final UAT results and issue tracking XLS
  - o Get Final UAT results confirmation and acceptance
- Go-Live
- Exercise Support Process
- Conduct Final Walkthroughs and Data Validation
- Execute Workflows (e.g. Notification)

### 3. Reports

This grant will allow us to develop and deploy a wide range of detailed reports specific to our UOCAVA Enhancement Project. Previously we had neither the tools nor resources necessary to fully implement a UOCAVA reporting system. With this grant we expect to implement the following reporting capabilities:

- UOCAVA Enhancement Cost Tracker
  - o Tracks time spent preparing deploying electronic ballots for our UOCAVA voters.
- UOCAVA One-time and Annual Payments to our selected vendor
- UOCAVA Enhancement Trend Analysis
  - o Measures the rate of improvement for each of the following metrics:
    - Voter Registration
    - Ballot Delivery
    - Ballot Return
    - Time Spent on the Site
    - Voter Access vs. Downloads
    - Voter Registration to Download Trends
    - Voter Access by Geography

### Management Approach

Our management approach represents a proven development approach that provides for welldefined phases that take into account development of requirements, architectural design, detailed software design, software development, system testing, and managed release cycles.

Phases for the solution approach that are involved in this project are shown below:

- Envisioning: Envisioning involves creating a business vision and defining an approach to bring the vision to reality.
- Planning and Development: Planning continues through the development of functional requirements and a project plan for the project.
- Stabilization: Our team in cooperation with the vendor will test the solution and make modifications as needed.
- Deployment: The Deployment phase includes deployment of the solution and final testing.

Key Activities during the project will include the following:

- Kick-off and Vision and Scope meeting
- Define roles and responsibilities
- Outline key information needed to complete the project
- Confirm project approach
- Build and confirm project plan.

### Eight Criteria Areas

The State of New Mexico endorses the eight criteria areas that are used to measure and evaluate this new UOCAVA program. Those areas are:

### Significance/Impact

This Grant Request has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas and metrics that we focus on are:

- Voter Registration
- Ballot Delivery
- Ballot Return

Historically, the biggest challenge for the UOCAVA voter population has been in "ballot return". The chosen system will help meet the goal of eliminating the gap between domestic absentee voters and UOCAVA voters in all the key metrics, especially ballot return.

. . . ...

In addition, the FVAP grant will be allow us to ensure that all voters, regardless of deployment within, or outside of the U.S. will always have a reliable method to register, access, and return their ballot. The State of New Mexico has over 1.16 million registered voters and we are an increasingly mobile population with a growing rate of military personnel. There is no way of knowing who or when a voter may be out of the country or mobilized. The system we will select must be capable of addressing the mobility needs of every voter in our voter registration system.

### Strategic goals

The State of New Mexico considers the UOCAVA project a highly strategic opportunity to dramatically ease the process of balloting for overseas and military voters. In addition this project will secure the tools necessary to ensure any of the registered voters in the counties are able to easily register and become an eligible UOCAVA voter, when necessary.

Key strategic goals for this project are as follows:

- Improve ballot access for UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials.
- Provide a solution that can build upon in the future as legislation catches up with the available technology.
- Provide an overall long term cost-effective solution for our elections.
- Provide analytical information regarding the usage of the solution.

Our working hypothesis for this project states:

- Complete lifecycle electronically -delivered UOCAVA voter services
  - o Reduce barriers to UOCAVA voter access
  - Increase voter participation
  - Decrease errors that have the potential to disenfranchise.
- Comprehensive data collection
  - o Demonstrate effectiveness
  - o Enable comparison both over time, and between jurisdictions.
- Use of common data formats
  - o Data mining of statistics from many jurisdictions.

In summary, our strategy is to offer our UOCAVA voters a one-stop, electronic ballot and registration tool that offers a dynamic and flexible platform that will reflect our current and future electronic ballot requirements. The end result will be significantly easier access to awareness, registration, online ballot marking, return, and tracking of the ballot for all eligible UOCAVA voters.

Long-term strategy may involve expanding the system as a multi-platform, electronic ballot application that is available via Facebook, mobile phone, Google, Bing or any number of emerging platforms, beyond our website or county websites.

### Sustainability

Our elections offices are generally understaffed and under-resourced. Accordingly, New Mexico has designed this project to meet the following criteria:

- Low long-term costs The vendor's payment model should offer an option where the State only pays for what we use. For example, beyond the grant years, our jurisdiction will only expect to pay based on the number of ballots actually downloaded.
- Significantly lower server and hosting costs.
- To ensure long-term sustainability, we will pursue applications that can be deployed to ensure our UOCAVAvotersare getting a broad-based level of use.

### Innovation

The chosen system will be innovative for our state and provide:

Web-based, interactive accessible voter information guide.

Electronic ballot access and sample ballots specific to each voter.

Comprehensive ballot tracking system.

These tools will be integrated into our proposed MOVE Act solution and utilized at the discretion of individual county clerks.

### Scalability

Scalability, security and stability are the key elements of the system to be implemented. The system chosen must be scalable to accommodate the needs of both the largest population counties in New Mexico, as well as the rural counties with much smaller populations.

### Collaboration

A key objective for New Mexico is to offer a seamless, integrated solution for each of the thirtythree election jurisdictions in New Mexico. The County Clerks' Affiliate of the New Mexico Association of Counties has the extended benefit of sharing innovative ideas and providing for cross-county communication and state-county communication on best practices and procedures while offering a similar balloting experience to each jurisdiction's UOCAVA voters.

### Cost Benefit

The State of New Mexico has over 1.16 million registered voters. The award of this FVAP grant will enable New Mexico to deploy a comprehensive, automated MOVE Act and UOCAVA services tool for years to come. A truly comprehensive MOVE Act and UOCAVA solution must be able to touch each of our registered voters, since any one of them may become UOCAVA eligible at any time.

We expect to offer the proposed system to every UOCAVA voter for every election. We believe that a Uniformed or other eligible voter should have equal access to the ballot, regardless of the size of the election. Therefore, we expect to use this solution for a minimum of three elections per year.

We estimate a minimum of 500 hours of manual staff time to successfully comply with the MOVE Actand UOCAVA assistance per election at a rate of \$50 per hour. This total equates to

a 4 year total of \$300,000(At three elections per year). Processing and mailing ballots individually is an additional statewide cost of nearly \$30,000 per year.

The County anticipates a total UOCAVA and MOVE Act compliance cost of nearly \$400,000 over a four year period. As noted in the table below, this grant will enable us to deploy a perpetual system with manageable annual fees that will dramatically lower the twelve year costs by over \$140,000 dollars.

	Number of Man Hours Per Year	Cost to State and Localities – 4 Years	Cost to State and Localities – 8 Years	Cost to State and Localities – 12 Years	FVAP Project Cost	12 Year <u>Savings</u>
MOVE ACT Compliance	500	\$300,000	\$600,000	\$900,000		
UOCAVA Registration	100	\$60,000	\$120,000	\$180,000		
Materials – Server, Equipment, paper and postage		\$120,000	\$240,000	\$360,000		
Total	600	\$480,000	\$960,000	\$1,440,000	\$550,000	\$890,000*

\* Not including \$1.00 per UOCAVA ballot download fee beginning 2016

The deployment of the proposed solution will eliminate the need for elections staff to manually register a UOCAVA voter application, and send a paper ballot. It should reduce staff time substantially, while fully complying with all the provisions of the MOVE Act.

UOCAVA voters will be able to register online, access and mark their ballot and, print, fax, or email all the required materials, and track their ballot. Staff need only add the voter into their VR system, and send the email notification to the UOCAVA voters of ballot availability. We anticipate a significant impact on our staffing and resources, saving over 60% of time while still fully complying with the MOVE Act.

### Analysis and measurement of current processes

We agree with the authors of the MOVE Act that due to logistical, geographical, operational and environmental barriers, military and overseas voters are burdened by many obstacles that impact both the voter registration process and, most importantly, their right to vote. Most critical are problems transmitting balloting materials and not given enough time for ballot delivery.

As the MOVE Act underscores, states clearly play a critical role in addressing these problems and providing appropriate voting solutions.

The State of New Mexico's UOCAVA voter population has expanded over the last decade, due in part to increases in the number of military personnel deployed overseas. We estimate nearly two thirds of our UOCAVA personnel are affiliated with the armed services. In order to serve this growing constituency, we traditionally have deployed a variety of tools to ensure timely access to the ballot. These measures include links to the FPCA and the Federal Write-in Absentee Ballot (FWAB) on our elections home page. Additionally, we mail and email ballots to eligible UOCAVA voters.

While the spirit of the law is well intentioned, we are now faced with the challenges of meeting the new requirements of the MOVE Act, while working with an overburdened election team during the critical days of an election. The MOVE Act law requires electronic ballot delivery 45 days prior to a federal election; this requires staff to spend precious election time just keeping the jurisdiction in compliance with the new law.

Our elections administrators have determined that we have narrowed the gap between our domestic and UOCAVA population in areas of voter registration and voter participation. However, we still have a significant gap in ballots returned in time to be tabulated. Our key success metric is to improve the process of successfully transmitting and receiving (*return rate*) the ballot in time to be accepted and counted.

Our current procedure is a labor-intensive process that has been magnified due to the MOVE Act requirements. This grant funding will allow us to acquire new technologies to automate our registration, transmittal and the processing of UOCAVA ballots for our voters, thus significantly increasing our ballot return rate for our military and overseas voters.

### Identification of each process and the elements that are related to the process

Our UOCAVA voter population has expanded over the last decade. In order to serve this growing constituency, our current process is as follows:

- Voters apply to vote as a UOCAVA voter using the Federal Post Card Absentee Application
- Once registered and in the system, we mail and or email a physical ballot to the voter. Over the past few years we have emailed a ballot and the requisite balloting information to those voters on file with a valid email address.
- Our goal has been to send our registered UOCAVA voters a ballot at least 45 days in advance of an election.
- The ballot is returned by the voter, along with the signed affidavit attesting to their validity as a registered, eligible voter.
- Emailed ballot are hand tallied.

### Identification of potential risks and mitigating strategies

We believe the rewards of implementing a fully compliant MOVE Act solution greatly outweighs the risks associated with deploying a new technology. However, any successful project must understand that there are risks associated with initial deployments. These risks entail:

- Newer technology in the early part of the life cycle
- Lack of voter awareness of new electronic balloting tools

In order to mitigate the above listed risks we plan to deploy the following risk mitigation strategies:

- We will conduct a test pilot in the production environment using the new technologies.
- We will conduct acceptance testing procedures to ensure that the requirements identified in the Envisioning Phase are satisfied.
- Perform remediation configuration activities on the electronic ballot tools to address any issues/problems uncovered during the pilot test exercise
- We will develop a Test Report that documents Acceptance Test procedures and resulting using the pilot test users.
- Revise and refine our back end processes to handle the expected increase in UOCAVA ballots.

The deployment phase will consist of the following activities:

- Execute operational test procedures to ensure the technology is functioning properly
- Provide our team access to the tool to allow execution of administrative procedures and to run reports
- Provide operational support during an election to ensure the electronic ballot solution is made available to our voters

The following general procedure will be used to manage project issues and risks:

- Identify and document
- Assess impact and prioritize
- Assign responsibility
- Monitor and report progress
- Communicate issue resolution

A mutually agreed upon issue escalation process will be defined at the outset of the project.

### Formalization of performance indicators for each process

It is critical for us to be able to manage and compile reports for each of our key performance metrics. These metrics include a wide array of measurables, including detailed statistical reports on the voter registration, balloting activity and cost tracking.

### Justification for the modification to the existing processes

Our current UOCAVA process is a labor-intensive, manual environment in which our elections staff must spend a disproportionate amount of time. We believe that every eligible voter should have equal access to the ballot. Therefore, regardless of the time it takes, our staff will ensure the ballots gets delivered and processed. Our key objective is to narrow the gap between

domestic ballot return and UOCAVA ballot return. By automating the process with the proposed system, our UOCAVA voters will be able to register to vote, access, mark their ballot, and track the status of their ballot. In addition, automating the MOVE Act compliance requirements will free up our staff to do other necessary elections critical activities that relate to all our voters, domestic and abroad.

We are confident that the proposed solution will greatly narrow the gap between UOCAVA and domestic voters, while reducing the costs associated with a manual process. By deploying an electronic system we can offer voter registration, ballot access and ballot return at nearly a 60% quicker rate than our tradition manual process. We expect that a least 50% less man-hours will be spent on UOCAVA related voter registration, ballot delivery, ballot processing and ballot duplication.

Every eligible UOCAVA voter will have access to their ballot, where and when they want it.

### Measurements of performance

Our objective is to continually assess, measure, and track our improvement relating to our UOCAVA population. The technology we choose will offer an array of reporting tools to ensure we are able to performance measure what we are managing. The reporting tools include, but are not limited to:

- Number of voters requesting a ballot
- Number of visitors viewing a ballot
- Number of ballots downloaded
- Delivery method requested/downloaded
- Ballot sent to ballot received ratio
- Ballot sent to ballot downloaded ratio
- Locality and Region of voter activity
- UOCAVA Enhancement Cost Tracker
- UOCAVA Enhancement Trend Analysis

An annual final report will summarize the entirety of the data and financial reports. This is the report that is to be made available to FVAP by the 15<sup>th</sup> of February for each of the grant-supported years, but at least through 2016.

### 1. Current and Pending Project Proposal Submissions

We currently have no current or pending projects that overlap with this initiative. We have been in strategy discussions about the various balloting tools that are available to assist not only our UOCAVA voters, but also ways to assist our disabled population. However, we have no current or pending program or proposal developed or planned at this time.

### 2. Qualifications

The chosen vendor must demonstrate successful deployment of innovative voting assistance products to empower voters and has met the requirements of the MOVE Act.

Volume II – Budget Proposal

Acquisition of electronic UOCAVA voting system through RFP with available vendors - \$420,000.00

The State does not anticipate acquiring additional IT personnel, purchasing or maintaining any server equipment, spending time developing and testing software or managing update. The entire expense will be for acquisition of equipment through an approved subcontractor selected through Requests for Proposal.

### 1. Technical Proposal

### Catalog of Federal Domestic Assistance Number: 12.217

**BAA number**: H98210-BAA-11-0001

Title of proposal:	New York State UOCAVA System Enhancement (USE) Project
CAGE Code:	(b)(4)
DUNs Number:	(b)(4)

Applicant: New York State Board of Elections

Sub Contractors: Election Systems and Software, Inc, Scytl USA LLC, Hewlett Packard, NTS Data Services, N-Tier Technologies, Essex, Schoharie & Suffolk Counties

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Period of Performance: September 2011 – December 2016

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### 3. Technical Approach and Justification

### 3.1. Executive Summary

The New York State Board of Elections (NYSBOE) is conscious of the challenges facing our military and overseas voters and is committed to growing and adapting our services and supporting technologies to meet their continuing needs. New York's participation in the Electronic Absentee Systems for the Elections Grant initiative will allow the New York State Board of Elections to continue efforts to research and evaluate innovative technologies and associated services that we believe will improve and increase the successful level of participation of military and overseas voters. The New York State Board of Elections intends on addressing these challenges as well as others through the establishment of the New York State UOCAVA System Enhancement (USE) Program.

The New York State Board of Elections' key program objectives include establishing and successfully improving electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The New York State Board of Elections also believes the efficacy of our efforts can be shared and will benefit other jurisdictions. New York intends on implementing a full-scale integration and enhancement effort which will enhance the front facing services provided through BALLOT*safe*, and enhance the support, data transfer, and back office features of other IT systems which support it. This includes enhancements to the state's NYSVoter voter information system and the county-based voter registration (VR) systems with which it currently interacts.

Considering New York's background and current UOCAVA solution, we believe that working with our current vendors at the state and local level to enhance their services and interfaces will best address our unique requirements and result in the most effective, innovative, repeatable, documented, and sustainable solution for New York. Our vendors - ES&S, Scytl, Hewlett Packard, NTS Data Services and N-Tier - along with Essex, Schoharie & Suffolk counties who maintain their own proprietary voter registration systems, have committed themselves to providing a unique solution customized to fit the requirements of New York.

Overall, we view the collaboration of NYSBOE, our vendors, and other stakeholders as the best solution to overcome and eliminate any barriers which now face the UOCAVA voters of New York. This program's robustness, flexibility, usability, and innovation will pave the way to ensuring that the number of ballots sent equals the number of ballots returned, successfully addressing our goals and objectives detailed in the following section.

### 3.2. Goals and Objectives

### 3.2.1. New York State UOCAVA System Enhancement (USE) Program Overview

The New York State Board of Elections proposes a New York State UOCAVA System Enhancement (USE) Program where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the military and overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the error rate associated with the ballot return process. Local voter registration systems and the statewide voter registration system will also be enhanced to support full data flow between the voter, local election officials, state election officials, and the Scytl BALLOT*safe* system. Where possible, the

USE Program will establish automated data transfer through web services to increase the efficiency of the processes which affect the voting experience of the military and overseas voter.

### 3.2.2. Factors Achieved

The New York State Board of Elections believes that our unique assets, capabilities, locations, and personnel through the New York State UOCAVA System Enhancement (USE) Program will foster and develop products and processes which will lessen the impediments that exist for the UOCAVA voter and will strongly address the Evaluation Factors stipulated in the FVAP EASE Grants program. For example, these factors are achievable through the deployment and use of the BALLOT*safe* solution complimented with customizations to NYSVoter and the local voter registration systems. Our research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

### 3.2.2.1. Significance

Knowing that research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate, the NY USE Program will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- Voter Registration BALLOT*safe* will work in coordination with NYSVoter and the New York local VR systems to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot Application BALLOT*safe* will provide an online absentee ballot application wizard which will guide the voter through the completion and return by mail of the Federal Post Card Application (FPCS) registration/absentee ballot application to their local board of elections. Further, this process will also allow the voter to create an account on BALLOT*safe* to track the return and processing of their request. With an account, the voter will also be able to setup email reminders to complete requests for each election as needed. Voter information and the absentee ballot request tracking notifications will be exchanged through the automated interface between BALLOT*safe*, NYSVoter, and the local voter registration systems.
- Absentee Ballot Delivery BALLOT*safe* will utilize the ballot data from any New York election management system, as confirmed by the respective county board of elections officials, to deliver the precinct-specific ballots via its secure and accessible online portal. Voters that have indicated a preference to receive their voting materials electronically will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT*safe* online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official and other helpful tools.
- Absentee Ballot Return and Tracking BALLOTsafe will provide voters with exact state and county specific return instructions along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOTsafe will also use security envelope tracking barcodes to assist in the correct receipt and tracking of returned ballots. Furthermore, BALLOTsafe, NYSVoter, and the local voter registration systems will communicate via an automated data transfer channel to communicate ballot tracking information. This will include status updates for ballot download, ballot

received, and ballot rejected which will be provided to voters as soon as the local election official updates the local VR system.

## 3.2.2.2. Sustainable

The New York State Board of Elections is focused on constructing cost-effective and sustainable solutions which successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in New York's assessment of sustainability shown below. The New York State Board of Elections believes these factors are achievable through a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. New York will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the NY USE Program.
- The program and solution will be **logistically sustainable**. The NY USE Program will seek to realize operational efficiencies over the current processes through enhancements to the integration and technology services which will provide a lower level of effort which can be sustained even with decreasing budgets. Examples of this include easier exchange of ballot and voter information between technology systems, less effort and cost in the delivery of ballots electronically,quicker processing of returned absentee ballots and reporting efficiencies.
- The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform which relies on advances in cryptographic protections, advances in Java-based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

Furthermore, by incorporating the cost for the NY USE Program through the year 2016, New York is ensuring a consistent and sustaining offering to its voters and election officials. Also, utilizing multiple election cycles to gather and analyze statistics and feedback will strengthen the NY USE Program's findings and allow for a greater impact and significance. Specifically, the New York State Board of Elections expects to support the following through 2016:

- Maintain BALLOT*safe* services with ES&S and Scytl through an annual Right to Use License
- Ongoing research and evaluation of BALLOT*safe* for each election cycle
- Generation of Election Analysis and Assessment Reports (EAAR) after major elections

# 3.2.2.3. Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage which provides for the broadest impact to voters and election officials. Local election officials will also be provided with an easier to manage system and will only be required to input data into their local VR systems. This data will then be propagated to NYSVoter and BALLOT*safe* for immediate consumption. Some advanced concepts which will provide greater impact to voters are:

• Sample Ballot – The sample ballot feature of BALLOT*safe* permits voters to have the opportunity to access their specific sample ballot before the election. Accessibility –

BALLOT*safe* has been purposefully constructed to be in compliance with the applicable web accessibility standards and to provide an intuitive interaction when being understood or controlled through personal assistive devices. Below are the usability and accessibility standards which BALLOT*safe* follows:

- Web Content Accessibility Guidelines (WCAG) 2.0
- o User Agent Accessibility Guidelines (UAAG) 1.0
- Section 508 of the US Rehabilitation Act, Web-based Intranet and Internet Information and Applications (1194.22)

#### 3.2.2.4. Strategic Approach

The New York State Board of Elections has presented a credible hypothesis and will provide a well-defined and appropriate plan to test that hypothesis. The plan is further defined in 3.3 Schedule and Milestones and the Management Approach, Section 4. We believe the hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

#### 3.2.2.5. Innovation

The NY USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The New York State Board of Elections believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of the USE Program:

- Automated data transfer New York State is planning on bringing a large collection of IT systems into direct communication with one another, to greatly enhance the level of services provided to UOCAVA voters. This includes the online BALLOT*safe* system, New York's voter registration system NYSVoter, and each of the voter registration systems used by the local boards of elections. This interface will communicate UOCAVA voter data, FPCA registration/absentee ballot request data, and ballot tracking information. This increases the speed and accuracy of data which is provided to voters and decreases the burden on local and state election officials.
- Security. The groundbreaking cryptographic protocols inherent in BALLOT*safe* provide elections with the highest levels of security, in terms of voter privacy, voter verifiability, election integrity, system availability, and access control. BALLOT*safe* provides security through the use of a physically secure data center, complete redundancy of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.

#### 3.2.2.6. Scalability

The NY USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGi. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of:

- Usage increases in the number of voters and number of ballot styles it can support;
- Impact changes to and increases in the types of voters and the respective requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality which it employs.

## 3.2.2.7. Collaborative

The New York State Board of Elections has designed the NY USE Program to be a collaborative program involving key election technology providers in New York – ES&S, Scytl, Hewlett Packard, NTS Data Services, N-Tier, and the IT support staff of Essex, Schoharie and Suffolk counties. This consortium of vendors have agreed to integrate their systems under the following goals and scope for this grant effort:

## Goals

The integration effort is established with the following goals:

- Streamline the effort required of the local New York election officials to be in compliance with the MOVE Act by removing duplicate data entry where possible
- Alleviate the need for the manual interaction by New York State Board of Elections to forward information to BALLOT*safe* from NYSVoter
- Increase speed at which Military/Special Federal voter and ballot tracking data is updated in BALLOT*safe* and provided back to the voter
- Improve reporting capabilities within NYSVoter with regards to the activity of Military/Special Federal voter and ballot tracking data.

## Scope

The scope of the integration effort will consist of the following efforts:

- Automate the communication of Military/Special Federal voter registration and ballot request information between local voter registration systems, NYSVoter and BALLOT*safe*
- Automate the communication of Military/Special Federal voter ballot tracking status updates between local voter registration systems, NYSVoter and BALLOT*safe*
- Make required modifications to NYSVoter to capture, store, and forward the necessary voter registration, ballot request, and ballot tracking updates of Military/Special Federal voters from the local voter registration systems to BALLOT*scife*
- Expand the web service interface between the local voter registration systems and NYSVoter to provide for the automated transfer of voter registration, ballot request, and ballot tracking information of Military/Special Federal voters
- Make necessary modifications to the local voter registration systems to capture, store, and forward information related to the Military/Special Federal voter registration, ballot request, and ballot tracking information of voters
- Expand reporting functionality within NYSVoter to allow for various reporting criteria to be run against the Military/Special Federal voter and ballot tracking data.

#### 3.2.2.8. Cost Benefit Analysis

Each major component the USE Program can separately, or in total, be evaluated for Return On Investment (ROI) against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

#### 3.2.3. Security Measures

The NY USE Program will provide administrative, technical, and physical controls to protect each voter's personal identifying information (PII) and sensitive election material. At a minimum, **administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by all vendors in the storage and transmission of data.

First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls and where it is under 24/7 physical and application monitoring to ensure the security, health and integrity of the system around the clock. The infrastructure, including all hardware, software, and security controls are also monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software to be free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to seamlessly verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect a voter's identifying information from ever being associated with their ballot selections.

## 3.3. Schedule and Milestones

The New York State Board of Elections has identified the following as the initial schedule assuming an award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

## 1. Initiation and Planning Phase

Start Date: August 1, 2011 Duration: 45 days

The initiation and planning phase will initialize the project and introduce all stakeholders. During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown structure, statement of work with each sub-contractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

- a) Completion of Project Management Plan
- b) Completion of Quality Management Plan

## 2. Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

With the program stakeholders, this phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success in this area. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution amongst the stakeholders. The approach will lead into a detailed requirements gathering and specification development effort to capture the analysis into quantifiable measures necessary to improve the UOCAVA voting process. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of this will be addressed directly through BALLOT*safe* and technology enhancements while others may be addressed through policy review.

Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization

## 3. Technology Modernization

Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for customization, activation, and outreach efforts in preparation for the first election and continuously through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase 2, BALLOT*safe* and other systems will be customized to address New York's requirements such that UOCAVA voters are best supported.
- Voter Education During this phase, voters will be notified of the modernization and how it impacts them through multiple communication channels.
- Integration and Testing The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters. This will include

testing of the new interfaces between NYSVoter, BALLOTsafe, and the local VR systems.

Milestones:

- a) Technology Modernization Completion Presidential Preference Primary
- b) Technology Modernization Completion Primary Election
- c) Technology Modernization Completion General Election

## 4. Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the NY USE Program to enhance the technology and services provided to UOCAVA voters. Each progressive election will include greater enhancements to achieve the incremental goals established in Phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental and overall goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan.

Milestones:

- a) Presidential Preference Primary Completion
- b) Completion of Election Analysis and Assessment Report Presidential Preference Primary
- c) Primary Election Completion
- d) Completion of Election Analysis and Assessment Report Primary Election
- e) General Election Completion
- f) Completion of Election Analysis and Assessment Report General Election

## 5. Final Analysis and Reporting

Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase will collect the relevant data from the 2012 General Election(s) as well as reports and data from the previous elections. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of NY USE Program Final Report

## 3.4. Reports

## 1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the New York State Board of Elections will prepare quarterly programmatic and financial progress reports. For the purposes of the NY USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

The financial progress report will be provided in compliance with the Federal financial reporting guidelines and the requirements of the grant announcement.

The following programmatic and financial progress reports will be prepared:

- a. Fourth Quarter 2011 Programmatic and Financial Progress Reports
- b. First Quarter 2012 Programmatic and Financial Progress Reports
- c. Second Quarter 2012 Programmatic and Financial Progress Reports
- d. Third Quarter 2012 Programmatic and Financial Progress Reports
- e. Fourth Quarter 2012 Programmatic and Financial Progress Reports
- f. First Quarter 2013 Programmatic and Financial Progress Reports

## 2. Data collection points reports

There will be several data collection point reports prepared throughout the NY USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the UOCAVA voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned
- Types and number of problems incurred

- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

- a. Presidential Preference Primary EAAR
- b. Primary Election EAAR
- c. General Election EAAR (will be incorporated in the Final Report)

## 3. Final Report

The NY USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

#### 4. Management Approach

## 4.1. Introduction

New York has formed this USE Program to provide the necessary technology and tools to allow New York to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. The New York State Board of Elections intends on using an organized project management methodology to achieve these goals in a sustainable and organized way. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, along with state & local election personnel. This cooperative of the New York State Board of Elections, election officials and election service and system providers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- *Measure* key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved, future state process.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

## 4.2. Project Organization

## 4.2.1. Project Directors

The Co-Executive Directors of the New York State Board of Elections will serve as the project directors. The project directors manage the strategic aspects of the project, oversees the steering committee, review major deliverables, and provide direction to the project manager.

## 4.2.2. Project Steering Committee

The project steering committee will be comprised of the project directors, project manager, key personnel from Scytl, HP and the local VR system vendors, as well as local elections officials. The steering committee will provide guidance to the project directors and will ensure alignment of project with the strategic goals and objectives and key factors in Section 4.4.

## 4.2.3. Project Manager

The IT Director of the New York State Board of Elections will serve as the project manager. The project manager will coordinate and facilitate the necessary communication and interaction with and between the vendors to accomplish the goals of the NY USE Program.

## 4.2.4. Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project directors and will be responsible for data collection and analysis. The research team will

form hypotheses and will report findings. All research products will be validated with the steering committee which will prepare the conclusions.

#### 4.3. Project Resources

## 4.3.1. Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the NY USE Program, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department

## 4.3.2. ES&S

ES&S is the local voter registration vendor for 4 local boards of elections, covering more than two million voters. Their staff will participate throughout the development process, providing input and identifying the changes to their system software necessary to accommodate the goals of the NY USE Program.

## 4.3.3. NTS Data Services

NTS is the local voter registration system vendor for 50 local boards of elections throughout New York State. They will be providing key personnel and input throughout the development of the NY USE program. In addition, they will be instituting the necessary programmatic and procedural changes to their software in order to provide the majority of New York counties, and the military and overseas voters they serve, the ability to take advantage of the system and procedural efficiencies characteristic of the goals of the NY USE Program.

## 4.3.4. N-Tier Technology

N-Tier is the local voter registration system vendor for the New York City Board of Elections. Their staff will provide important input throughout the development of the NY USE program and will focus on instituting the necessary programmatic and procedural changes to their software in order to provide the military and overseas voters of New York City access to the benefits of the NY USE Program.

#### 4.3.5. Hewlett Packard

Hewlett Packard helped develop New York State's NYSVoter system, as well as the original enhancement which allowed it to communicate with the local voter registration systems. They are currently contracted with the State Board to provide additional enhancements to the system. Their staff's experience and knowledge of the existing systems will be invaluable to the success of the NY USE Program.

## 4.3.6. Essex, Schoharie & Suffolk County Board of Elections IT Staff

These three counties utilize home-grown voter registration systems, which already communicate with the state's NYSVoter system. They will be involved throughout the process of the NY USE Program to allow them to make any and all necessary adjustments to their existing systems so that they too can benefit from the scope and impact of this project.

## 4.4. Project Strategic Goals

The New York State UOCAVA System Enhancement (USE) Program will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

## **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.
- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), New York will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

**<u>Plan</u>:** Implement tools and services in an integrated and phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving New York's capabilities to support our overseas voter population.

## 4.5. Research Methodology

The NY USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

## 4.5.1. Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis,

considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

## 4.5.2. Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies to better meet their needs. As a starting point, the New York State Board of Elections knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens who are located in remote locations. In addition, although active duty military members complete Federal Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, New York citizens are likely to experience widely divergent voting experiences depending upon their country of residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries also varies widely. The aforementioned are but a few of the well known challenges faced by our overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

## 4.5.3. Technology Enhancements

While New York is already aware of many areas where BALLOT*safe* and other technology enhancements can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of New York's voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT <i>safe</i> will work in coordination with NYSVoter and the local VR systems to provide information to voters and enhance their voter registration interaction.	difficulty completing the registration form correctly. This tool will aid in the accurate	online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on
Absentee Ballot	BALLOT <i>safe</i> will provide an online absentee ballot		The provision of an online

Application	application wizard which will guide the voter through the completion and return by mail of the Absentee Ballot Application. Further, this process will also allow the voter to setup an account on BALLOTsafe to track the return and processing of the Absentee Ballot application. With an account, the voter will also be able to setup email reminders to complete applications for each election, as necessary. This information will be synchronized across BALLOTsafe, NYSVoter, and the local VR systems.	absentee ballot applications introduce unpredictable delays into the process which delay future steps. Voters can often forget when an absentee ballot application is due for an election or may incorrectly complete it.	electronic ballot application wizard will help ensure voters complete them correctly for return by mail to their local board of election.
Absentee Bal Delivery	lot BALLOT <i>safe</i> will provide online ballot delivery of precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT <i>safe</i> online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	Traditional postal delivery of ballots is lengthy and unpredictable. It is also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	The electronic delivery of ballots through a secure internet based portal will provide consistent access to eligible voters which will improve the successful completion and return rates of ballots.
Absentee Bal Return a Tracking	lot BALLOT <i>safe</i> will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their	The use of an online electronic portal to provide correct return information and return documents will improve the

#### 4.6. Performance Management

#### 4.6.1. Performance Management Approach

To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the NY USE Program goals and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- To manage the project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 4.4. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

#### 4.6.2. Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success
	At each step in the absentee voting process, the number
UOCAVA voting transactions from	of voters who complete each phase of the process

registration to ballot return.	increases. This will be measured on a per election basis, comparing previous election of that type to the current election. For example, the 2012 Primary Election will be compared with the 2008 Primary Election.
Increase the percentage of UOCAVA voters participating and voting in Federal elections.	For each Federal Election, there is an increase in percentage of UOCAVA voters who participate in at least one portion of the voting process.
Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.	Based on a comparison of the average failure rates for each stage in the absentee voting process with the failure rates of the current election, there is a decrease in the failure rate in each stage.
Provide tools and services that can benefit other jurisdictions.	The solution provided supports the legal, procedural, and technical requirements of other jurisdictions.
Provide security measures to protect users' personal identifying information and any transmitted election material.	Data collected through system audit logs, internal auditing, and interactions with voters does not indicate that any user's personal identifying information or sensitive election material was compromised in any way.
4.6.3. Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives	4.6.4. Reports provided through the NY USE Program include reliable data, complete analysis, and discerning conclusions for each of the objectives above.

#### 4.7. Risk Management

#### 4.7.1. Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- Risk Identification. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis**. Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- Commence at the Project planning stage, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

- **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.
- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - The risk owner who is the person responsible for managing the response plan
  - o The risk response strategy that will be used
  - The description of the mitigation or contingency plan
  - Any stakeholders impacted by the risk
  - The cost of the risk response
- **Risk Mitigation plans:** This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

#### 4.7.2. Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated against.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- e. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

## 4.8. Current and pending project proposal submissions

#### NOT APPLICABLE

#### 4.9. Qualifications

#### 4.9.1. Introduction

To assist personnel from New York, the New York State Board of Elections has selected ES&S and Scytl to provide operational, research and technology support with their key personnel list below. New York believes ES&S and Scytl have the best product and personnel to provide the services and support sought for the EASE grant execution in New York.

#### 4.9.2. Key Personnel

#### George Stanton, Chief Information Officer, New York State Board of Elections

Mr. Stanton has been the CIO of the Board of Elections for the past eleven years. He was Project Director for the NYSVoter statewide voter database project which won the Best of New York award for best IT collaboration among organizations.

#### Ingrid Giordano, Scytl Regional Sales Manager, Scytl USA LLC

Ms. Giordano serves Scytl as a Sales Manager and Elections Specialist for its U.S. based electoral modernization projects. She has 20+ years of experience working for voting systems industry leaders. She was previously the Election Services Manager and Public Relations Manager for Global Elections Systems (Diebold/Premier). She was the Virginia Regional Sales Manager for Advanced Voting Solutions and Sales Director for Vote Here of Bellevue, WA. Ms. Giordano has also served Sequoia Voting Solutions and Dominion Voting Systems as Elections Specialist and Customer Service Manager in New York State. Ingrid has certified, sold, implemented, installed and supported election solutions in 25 US states and Canada.

#### Aaron Wilson, Project Engineer, Scytl USA, LLC

Mr. Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

## New York State Budget

## New York State UOCAVA System Enhancement (USE) Program

The New York State UOCAVA System Enhancement (USE) Program consists of two components which will be implemented statewide. The first component is enhancements to and license costs (through 2016) for the online absentee ballot management software which provides services to both voters and election officials. The second component is enhancements to a number of systems which support the MOVE Act services provided to voters at each step in the absentee balloting process. The combined budget for each of shown below:

Program Component		Budget		
I. BALLOTsafe Service	\$	1,160,582.00		
II. MOVE ACT DATA AUTOMATED TRANSFER Project	\$	1,320,015.60		
TOTAL BUDGET	\$	2,480,597.60		

## I. BALLOTsafe Service

## A. DESCRIPTION

BALLOT*safe* is being provided as a software as a service (SaaS). This model has several price components: Activation and Implementation Services Fees, Annual Right-To-Use License and Service Fees during the Research Program, and ongoing Right-To-Use License Fees and Per Ballot Processing Fees after the Research Program is completed.

For the initial Program, which includes the 2012 Election Cycle, the following deliverables will be provided:

Activation and Implementation Services	Software License and Services - 2012
System Activation & Initial configuration	Right-to-use license of BALLOTsafe
Definition of specifications	Election Specific System Configuration
Customization to meet specifications	Secure Primary and Backup Hosting
Installation and deployment	Help-desk / Technical Support
Integration with existing EMS	Enhancements, New Releases & Upgrades
Training & Documentation	Account Management
Project management	

## B. Budget

The budget to the State of New York for the setup and use of the BALLOT*safe* service is \$520,227.00, as set forth in the table below. This budget includes the Activation and Implementation Services and Annual Right-To-Use License and Service Fees through the 2012 General Election Year.

Activation and Implementation Services:	
Activation, Configuration, Customization, and Documentation	\$229,520.00
System Integration	\$50,000.00
Acceptance Testing	\$10,000.00
Project Management and Research Support	\$63,000.00
Training and Documentation	\$7,875.00
Total Activation and Implementation Services	\$360,395.00
Software License and Services – 2012:	
Right-to-use license of BALLOT <i>safe</i> , Secure Primary and Backup Hosting, Help Desk/Technical Support, Software Maintenance and Support for all	
elections through Nov 2012	\$152,355.00
Overseas Vote Foundation State Hosted System License	\$140,227.00
Account Management and Research Data Support	\$47,250.00
Election Specific System Configuration	\$20,000.00
Total Annual License Fees and Services - 2012	\$359,832.00
Less: Existing Customer Discount	(\$200,000.00)
Total Fees (2012)	\$520,227.00

## **Ongoing Fees**

Following the conclusion of the 2012 grant program, BALLIOT*Safe* is available for use in supporting UOCAVA voters, as well as disabled voters and absentee-by-mail voters. The ongoing Annual Software License and Service Fees will consist of a fixed price per year as follows.

Description	UOM	2013	2014	2015	2016
Annual Right-To-Use	License	\$152 355 00	\$160,000,00	\$160,000,00	\$168,000.00
Software License	License	\$152,555.00	\$100,000.00	\$100,000.00	\$100,000.00

## The above fees entitle the State to the following:

- Right-To-Use License
- Upgrades, Enhancements, New Releases, and Bug Fixes (Except State-mandated changes)
- Help Desk & Troubleshooting Support
- Primary and Backup Secure Hosting

Item	Budget
BALLOTsafe 2012	\$ 520,227.00
BALLOT <i>safe</i> 2013-2016 RTU License	\$ 640,355.00
TOTAL	\$ 1,160,582.00

# II. MOVE ACT DATA AUTOMATED TRANSFER (MADAT) Project

## A. DESCRIPTION Introduction

The Military and Overseas Voter Empowerment Act (MOVE Act) was passed by Congress on October 22nd, 2009. In order to comply with the MOVE Act for the 2010 Primary elections, New York worked together with the local election jurisdictions, the statewide voter registration system, FVAP and Scytl to build a compatible solution. Now the New York State Board of Elections is seeking to develop an enhanced long term solution which seeks to unify and automate the MOVE compliance as much as possible. Therefore, the Board of Elections is coordinating the MOVE Act Data Automated Transfer ("MADAT") Project. The MADAT effort is the creation of a broad technology solution which will provide for the automated transfer of both Military voters & Special Federal voters, as well as their ballot status data from the county voting registration systems through NYSVoter (Statewide voter registration system) to the Scytl BALLOT*safe* platform (Internet based MOVE Act solution).

## Goals

The MADAT project is established with the following goals:

- Streamline the effort required of the local New York election officials to be in compliance with the MOVE Act by removing duplicate data entry where possible
- Alleviate the need for the manual interaction by New York State Board of Elections to forward information to BALLOT*safe* from NYSVoter
- Increase speed at which Military/Special Federal voter and ballot tracking data are updated in BALLOT*safe* and provided back to the voter
- Improve reporting capabilities within NYSVoter with regards to the activity of Military/Special Federal voter and ballot tracking data.

#### Scope

The scope of the MADAT project will consist of the following efforts:

- Automate the communication of Military/Special Federal voter registration and ballot request information between NYSVoter and BALLOT*safe*
- Automate the communication of Military/Special Federal voter returned ballot tracking status updates between NYSVoter and BALLOT*safe*

- Make required modifications to NYSVoter to capture, store, and forward the necessary voter registration, ballot request, and ballot tracking updates of Military/Special Federal voters from the local voter registration systems to BALLOT*scafe*
- Expand the web service interface between the local voter registration systems and NYSVoter to provide for the automated transfer of voter registration data, ballot request, and ballot tracking information of Military/Special Federal voters
- Make necessary modifications to the local voter registration systems to capture, store, and forward information related to the Military/Special Federal voter registration, ballot request, and ballot tracking information of voters
- Expand reporting functionality within NYSVoter to allow for various reporting criteria to be run against the Military/Special Federal voter and ballot tracking data.

## Data/Functionality Requirements

<u>Absentee Application Status</u> – Military/Special Federal voters who have a current & valid application on file should have some flag denoting them as being an active absentee voter. This information will be passed to BALLOT*safe* through NYSVoter to allow for access to the BALLOT*safe* system. If a previously active absentee voter who had access to the BALLOT*safe* system no longer has a current and valid absentee application on file at their home board, they will received a notification when they try to login to BALLOT*safe* that there application has expired and that they should fill out a new one (which would then point them to the OVF site).

<u>Voter's Ballot Transmittal Preference</u> – When applying for an absentee ballot, a voter can declare a preference for how they would like their ballot and voting materials sent (by mail, email or fax). This preference should be tracked throughout all three systems.

<u>Voter Email</u> – Since Military/Special Federal voters can request to receive their ballot information by email, we will need to make sure that this information can be stored across all three platforms. Additionally, local VRs should have staff enter an email address twice to verify it being entered correctly. There should also be a field to signify the validity of an email address. By default, we would assume that the email address is correct and valid. Currently, when a new account is created on BALLOT*safe* (currently a manual process but will become automated with this upgrade), Scytl's system sends out a welcome email. We would be looking to Scytl for some sort of system to flag any email messages that get bounced back with an error (invalid email, mailbox full, etc.). This information would then be passed along to NYSVoter and the county boards could review any records for absentee voters who have been flagged with an email error. The process within NYSVoter would be similar to the way they can review Felon Maintenance.

<u>Voter Fax Number</u> – Since Military/Special Federal voters can request to receive their ballot information by fax, we should have a place for this information throughout all three systems (as Scytl can accommodate those voters through email-to-fax).

<u>Voter Ballot Style</u> – In the majority (if not all) local VRs, an absentee voter somehow has a ballot style designated to them. This may be done directly by a ballot style field or through some

other process (by precinct where each precinct has a single specific ballot style). This information will need to be communicated to BALLOT*safe* through NYSVoter so that the identification of a voter's ballot style (currently done by manually uploading a table that pairs a ballot style id with a voter id) can be automated.

<u>Ballot Issued Date(s)</u> – For tracking purposes, the date that a ballot is issued should be communicated to BALLOT*safe* through NYSVoter so that a voter can be aware of when their ballot was sent (if by mail). Re-issue dates should be a topic of discussion for how best to handle this information (as a separate field, a table of dates, or a replacement of the initial issued value).

<u>Ballot Returned Date(s)</u> – Similar to the Ballot Issued Date(s), this information will need to be communicated to BALLOTs*afe* automatically (it is currently done between BALLOT*safe* and local boards manually). The same issue would exist for re-returned date(s).

<u>Ballot Download Status</u> – Since Scytl can track when a voter downloads a ballot, this information should be communicated back to NYSVoter. Should discuss if/how we track multiple downloads or downloads of multiple ballot versions.

<u>Ballot Counted Status</u> – The system should have the capability to track whether or not a voter's absentee ballot was counted or rejected within the local VR and that data be communicated to NYSVoter. It may or may not need to be communicated to *BALLOTsafe* as well.

<u>Overseas vs. Domestic Military Voter</u> – Since the Department of Justice often asks us to further break down data for Military voters into those with overseas or domestic addresses, as well as data on the countries being represented. This information should be tracked in the local VRs and communicated to NYSVoter. This could be done with something as simple as a "country" field.

## **NYSVoter Reporting Requirements**

NYSVoter's reporting capabilities need to be significantly expanded, specifically with regard to the new data that will be tracked for Military / Special Federal voters. We will need to be able to run queries based on the election year and type (2010 General Election, 2008 Primary Election, etc.), voter type (Military / Special Federal), military type (overseas or domestic), transmittal preference (mail, email or fax) and county. The other information described in the functionality requirements (ballot counted status, rejection reasons, etc) should be available as well, within these reports. Specific report structures will be identified in the near future and described in more detail.

# B. Budget

The budget for the MADAT project has been determined by estimates provided from each of the vendors.

Vendor	Budget	Description of Services
Scytl	\$200,000.00	Scytl will provide the web service interface for BALLOT <i>safe</i> to communicate with NYSVoter to automatically transfer voter and ballot data as required in the MADAT scope and goals listed above.
Hewlett Packard	\$300,000.00	HP will provide the web service interface for NYSVoter to communicate with BALLOT <i>safe</i> to automatically transfer voter and ballot data as required in the MADAT scope and goals listed above. HP will also enhance the current interfaces with each of the county systems to allow for additional data to be transfer. This data is required to support the MOVE Act requirements.
NTS	\$650,000.00	NTS will modify its voter registration application and its interface with NYSVoter to support the additional data and logic required for supporting the MOVE Act requirements. NTS is used in a large majority of New York's 62 counties.
Election Systems & Software	\$38,500.00	ES&S will modify its voter registration application and its interface with NYSVoter to support the additional data and logic required for supporting the MOVE Act requirements.
Essex	\$7,515.60	Essex County will modify its voter registration application and its interface with NYSV oter to support the additional data and logic required for supporting the MOVE Act requirements.
Schoharie	\$14,000.00	Schoharie County will modify its voter registration application and its interface with NYSVoter to support the additional data and logic required for supporting the MOVE Act requirements.
Suffolk	\$10,000.00	Suffolk County will modify its voter registration application and its interface with NYSVoter to support the additional data and logic required for supporting the MOVE Act requirements.
N-Tier	\$100,000.00	N-Tier will modify New York City's voter registration application and its interface with NYSVoter to support the additional data and logic required for supporting the MOVE Act requirements.
TOTAL	\$ 1,320,015.60	



#### COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

#### CNMI Voting Enhancement Project Grant Proposal for the FVAP Electronic Absentee Systems for Elections (EASE)

#### 1. Technical Proposal

#### Catalog of Federal Domestic Assistance Number: 12.217

BAA number: H98210-BAA-11-0001

**Title of proposal**: Proposal for EASE Grant to Improve Voting for UOCAVA Voters through the utilization of the UOCAVA System Enhancement Research Program (USE Program) provided by ES&S and Scytl.

CAGE Code:	(b)(4)
DUNS Number:	(b)(4)
Applicant:	CNMI Department of Commerce and the Commonwealth Election Commission

Sub Contractors: Election Systems and Software, Inc and Scytl USA LLC

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# Period of Performance: 2012 - 2016

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## 3. Technical Approach and Justification

## 3.1. Executive Summary

The CNMI Department of Commerce and the Commonwealth Election Commission is conscious of the challenges facing our military and overseas voters and is committed to growing and adapting our services and supporting technologies to meet their continuing needs. The CNMI Government's participation in the Electronic Absentee Systems for the Elections Grant initiative will allow us to continue efforts to research and evaluate innovative technologies and associated services that we believe will improve, and increase the successful level of participation within this valuable constituency group. The CNMI Department of Commerce and the Commonwealth Election Commission intends on addressing these challenges as well as others through the establishment of the Ballotsafe Solution voting method.

The CNMI Department of Commerce and the Commonwealth Election Commission's key program objectives include establishing and successfully improving electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The CNMI Department of Commerce and the Commonwealth Election Commission also believes the efficacy of our efforts can be shared and will benefit other jurisdictions.

Considering the CNMI Government's background and current UOCAVA solution, we believe that working with ES&S and Scytl as well as academic researchers from Cal Tech University and the University of Utah will best address our unique requirements and result in the most effective, innovative, repeatable, documented, and sustainable solution for the CNMI Government. ES&S and Scytl have committed to providing a unique solution customized to fit the requirements of the CNMI Government.

Saipan, the capitol of the Commonwealth of the Northern Mariana Islands (CNMI), is located approximately 120 miles due north of Guam. It currently has a registered voting population of over 16,000. Of the 16,000 registered voters, 13% or a little over 2000 of that are absentee voters, who are voters that are residing overseas either for military service, employment, education and/or medical reasons. Because of the anticipated military build-up on the island of Guam, we anticipate our absentee voters to increase as again, residents may temporarily relocate to Guam for employment purposes.

Overall, we view the collaboration with ES&S and Scytl, and their electronic absentee balloting product – BALLOT*safe*, as the best solution to overcome and eliminate the UOCAVA barriers, which now face the affected voters of the Mariana Island. Its robustness, flexibility, usability, and innovation will pave the way to ensuring that the number of ballots sent equals the number of ballots returned successfully addressing our goals and objectives in the following section.

#### 3.2. Goals and Objectives

## 3.2.1. Ballotsafe Solution voting method Overview

The CNMI Department of Commerce and the Commonwealth Election Commission proposes a Ballotsafe Solution voting method with ES&S and Scytl where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the overseas voting community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate in the ballot return process.

## 3.2.2. Factors Achieved

The CNMI Department of Commerce and the Commonwealth Election Commission believes that our unique assets, capabilities, locations, and personnel, through the Ballotsafe Solution voting method with ES&S and Scytl, will foster and develop products and processes, which will lessen the impediments that exist for the UOCAVA voter. This will also address the Evaluation Factors stipulated in the FVAP EASE Grants program. For example, these factors are achievable through the deployment and use of the BALLOT*safe* solution complimented with customizations for the CNMI Government and related research and analysis. Our research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

## 3.2.2.1. Significance

Knowing that research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate, the Commonwealth will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- Voter Registration BALLOT*safe* will work in coordination with any online voter registration system using tools and procedures, which will provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot (AB) Request BALLOTsafe will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOTsafe to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.
- Absentee Ballot Delivery BALLOTsafe will utilize the ballot data from any the CNMI Government election management system and deliver the precinct specific ballots via its secure and accessible online portal. Voters will be notified by email

of ballot availability. To assist in the ballot delivery, the BALLOT*safe* online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.

- Absentee Ballot Marking BALLOT*safe* provides an intuitive onscreen marking wizard, which conforms to the highest usability standards that has been tested for use with a broad spectrum of assistive devices, which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write-ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.
- Absentee Ballot Return and Tabulation BALLOTsafe will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOTsafe will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode, which assists in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot tracking updates are provided to the voter immediately through BALLOTsafe and through email notification.

#### 3.2.2.2. Sustainable

The CNMI Department of Commerce and the Commonwealth Election Commission is focused on cost-effectiveness and sustainable solutions, which will successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in the CNMI Government assessment of sustainability shown below. The CNMI Government believes these factors are achievable through a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. The CNMI Government will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the Commonwealth. Further information can be found in the ROI analysis provided in the Budget Proposal.
- The program and solution will be **logistically sustainable**. The USE Program will seek to realize operational efficiencies over the current processes through the BALLOT*safe* technology, which will provide a lower level of effort, which can be sustained even with decreasing budgets. Examples of this include easier exchange of ballot and voter information between technology systems, less effort and cost in the delivery of ballots electronically, quicker processing of returned absentee ballots, and quicker and more reliable replication of ballots upon return.

• The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform, which relies on advances in cryptographic protections, advances in Java based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

By selecting the ES&S/Scytl product offering of BALLOT*safe*, the CNMI Government is ensured of a long term commitment from a vendor who has a long history of election experience and can continue to provide updates and enhancements to the product for many years to come. Furthermore, by incorporating the cost for the Commonwealth through the year 2016, the CNMI Government is ensuring a consistent and sustaining offering to its voters and election officials. In addition, utilizing multiple election cycles to gather and analyze statistics and feedback will strengthen the Commonwealth's findings and allow for a greater impact and significance. Specifically, the CNMI Department of Commerce and the Commonwealth Election Commission expects to support the following through 2016:

- Maintain BALLOT*safe* services with ES&S and Scytl through an annual Right to Use License
- Ongoing research and evaluation of BALLOT*safe* for each election cycle
- Generation of Election Analysis and Assessment Reports (EAAR) after major elections

## 3.2.2.3. Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage, which provides for the broadest impact to voters and election officials. The following advanced concepts that will provide greater impact to voters are:

- Sample Ballot The sample ballot feature of BALLOT*safe* allows voters the opportunity to access the jurisdiction's sample ballot before the election. Through the election official's interface, officials are allowed to publish campaign statements from candidates as well as additional information that will be available to voters in the sample ballot.
- News Feed BALLOT*safe* provides specific news feed to voters. The news feed will provide a sidebar of the voter web site and includes news events generated by the local election official. As desired, the news feed may also be linked to FVAP or the jurisdiction's social media feeds.
- Accessibility BALLOT*safe* has been purposefully constructed to comply with the applicable web accessibility standards and to provide an intuitive interaction

when being understood or controlled through personal assistive devices. Below are the usability and accessibility standards which BALLOT*safe* follows:

- Web Content Accessibility Guidelines (WCAG) 2.0
- o User Agent Accessibility Guidelines (UAAG) 1.0
- Section 508 of the US Rehabilitation Act, Web-based Intranet and Internet Information and Applications (1194.22)
- NIST Accessibility and Usability Considerations of Remote Voting Systems, Draft – June 28, 2010

## 3.2.2.4. Strategic approach

The CNMI Department of Commerce and the Commonwealth Election Commission presents a credible hypothesis, which provides a well-defined and appropriate plan to test that hypothesis. The plan is further defined in 3.3 Schedule and Milestones and the Management Approach, Section 4. We believe the hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

## 3.2.2.5. Innovation

The USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The CNMI Department of Commerce and the Commonwealth Election Commission believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of BALLOT*safe*:

- Security. The groundbreaking cryptographic protocols inherent in BALLOT*safe* provide elections with the highest levels of security, in terms of voter's privacy, voter verifiability, election integrity, system availability, and access control. BALLOT*safe* provides security using a physically secure data center, complete redundancy of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.
- Ballot Choice Barcode. BALLOT*safe* provides accurate and reliable automated remake of returned ballots with its ballot choice barcode feature. Using a barcode on a ballot generated through the voter's onscreen marking wizard, the ballot choice barcode can replicate the voter's selections onto the local jurisdictions optical scan readable ballot.
- Social Media Interaction. BALLOT*safe* provides mechanisms for the voter to interact with social media content (Facebook, Twitter, etc) through BALLOT*safe*.

This is done through multiple concepts such as a Newsfeed and interactive sample ballots.

- FPCA barcode. BALLOT*safe* provides a feature whereby the voter can complete an FPCA through the BALLOT*safe* FPCA wizard with an absentee data barcode. This barcode provides for the automated exchange of the voter's information from the FPCA through an FPCA import module, and into the local voter registration processing queue, which reduces the need to enter voter information manually.
- UOCAVA community forum. The BALLOT*safe*, ES&S, and Scytl have established a communication portal to discuss ideas, techniques, and best practices of election officials and their services for the UOCAVA voters. This is done through a secure online data repository and message board.

## 3.2.2.6. Scalability

The USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGI. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of the following:

- Usage increases in the number of voters and number of ballots styles it can support;
- Impact changes to and increases in the types of voters and their requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality, which it employs.

Furthermore, our agreement with ES&S and Scytl is to obtain all of the existing features and functionality of BALLOT*safe* regardless of our current need. With the ability to access and use features on an as needed basis thereafter, we are able to adjust our growth and use of the product in such a way that we can meet the demands of tomorrow as easily as the demands of today.

## 3.2.2.7. Collaborative

The Commonwealth Election Commission have designed the USE Program to be a collaborative program involving key election technology providers – ES&S and Scytl, reputable academic researchers from Cal Tech University and University of Utah, and other election jurisdictions through a data and experience sharing portal in BALLOT*safe*.

This consortium of election officials, election service and system providers, and researchers will collaborate to address and improve the absentee voting process. To do this, we will use a six-sigma approach to improving existing business processes:

- **Define** the problem, the voice of the customer (i.e. the voter), and the project goals.
- *Measure* key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current processes based upon data analysis to create an improved, future state process.
- *Control* the future state process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

## 3.2.2.8. Cost Benefit Analysis

Each major component of BALLOT*safe* can separately, or in total, be evaluated for ROI against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

## 3.2.3. Security Measures

The Commonwealth Election Commission will provide administrative, technical, and physical controls to protect voter personal identifying information (PII) and sensitive election material. At a minimum, **administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by ES&S and Scytl through the BALLOT*safe* solution. First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls. The applications are then physically monitored 24/7 to ensure the security, health and integrity of the system around the clock. The infrastructure, including all hardware, software, and security controls are monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in

transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect voters' identifying information from ever being associated with their ballot selections.

## 3.3. Schedule and Milestones

The Commonwealth Election Commission has identified the following as the initial schedule assuming an award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

## 1. Initiation and Planning Phase

## Start Date: August 1, 2011 Duration: 45 days

The initiation and planning phase will initialize the project and introduce all stakeholders. During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown structure, statement of work with each sub-contractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

- a) Completion of Project Management Plan
- b) Completion of Quality Management Plan

# 2. Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

With the program stakeholders, this phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success in this area. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements, which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution amongst the stakeholders. The approach will lead into a detailed requirements gathering and specification development effort to capture the analysis into quantifiable measures necessary to improve the UOCAVA voting process. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of these will be addressed directly through BALLOT*safe* while others will be addressed through policy changes.

Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization

## 3. Technology Modernization

## Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for the customization, activation, and outreach efforts in preparation for the first election and continuously through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase
   2, BALLOT*safe* and other systems will be customized to address the CNMI Government's requirements such that UOCAVA voters are best supported.
- Voter Education During this phase, voters will be notified of the modernization and how it affects them through means of multiple communication channels.
- Integration and Testing The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters.

Milestones:

- a) Technology Modernization Completion Presidential Preference Primary
- b) Technology Modernization Completion Primary Election
- e) Technology Modernization Completion General Election

## 4. Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the Commonwealth to enhance the technology and services provided to UOCAVA voters. Each progressive election will include greater enhancements to achieve the incremental goals established in phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental and overall goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan.

Milestones:

- a) Presidential Preference Primary Completion
- b) Completion of Election Analysis and Assessment Report Presidential Preference Primary
- c) Primary Election Completion
- d) Completion of Election Analysis and Assessment Report Primary Election
- e) General Election Completion

f) Completion of Election Analysis and Assessment Report - General Election

# 5. Final Analysis and Reporting

Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase will collect the relevant data from the 2012 General Election(s) as well as reports and data from the previous elections. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points, which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of USE Program Final Report

# 3.4. Reports

# 1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Commonwealth Election Commission will prepare quarterly programmatic and financial progress reports. For the purposes of the USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

The following programmatic and financial progress reports will be prepared:

- a. Fourth Quarter 2011 Programmatic and Financial Progress Reports
- b. First Quarter 2012 Programmatic and Financial Progress Reports
- c. Second Quarter 2012 Programmatic and Financial Progress Reports

- d. Third Quarter 2012 Programmatic and Financial Progress Reports
- e. Fourth Quarter 2012 Programmatic and Financial Progress Reports
- f. First Quarter 2013 Programmatic and Financial Progress Reports

# 2. Data collection points reports

There will be several data collection point reports prepared throughout the USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned
- Types and number of problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

- a. Presidential Preference Primary EAAR
- b. Primary Election EAAR
- c. General Election EAAR (will be incorporated in the Final Report)

# 3. Final Report

The USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings, and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability

- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

# 4. Management Approach

# 4.1. Introduction

ES&S and Scytl have formed a strategic alliance to provide the necessary technology and tools to allow the Northern Mariana Islands to meet the proposed research goals and grant evaluation factors for assisting UOCAVA voters. The Commonwealth Election Commission intends on using an organized project management methodology with ES&S and Scytl to achieve these goals in a sustainable and organized way. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, local election personnel, and election officials from other jurisdictions. This cooperative of the Commonwealth Election Commission, election officials, election service and system providers, and researchers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- **Define** the problem, the voice of the customer (i.e. the voter), and the project goals.
- *Measure* key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved, future state process.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

# 4.2. Project Organization

# 4.2.1. Project Director

The Commonwealth Election Commission will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

#### 4.2.2. Project Steering Committee

The project steering committee will be comprised of the project director, a project manager, key personnel from ES&S and Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with the strategic goals and objectives and key factors in Section 4.4.

#### 4.2.3. Project Manager

Election Systems and Software (ES&S) will serve as project manager for the Commonwealth. ES&S maintains a global team of PMI certified Project Management Professionals and Elections Experts with specific experience in election solution implementations. The ES&S Project Management Office (PMO) has over 285 years of combined elections experience, which has allowed the PMO to develop election specific best practices to accommodate the unique and challenging aspects of the election industry. This team of professionals is trained to manage projects pursuant to the Project Management Institute's project management principles. Each Project Manager is supported by a team of Technical Engineers, Subject Matter Experts, and Support Specialists to assure that each aspect of the project is managed effectively and efficiently.

#### 4.2.4. Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project manager and will be responsible for data collection and analysis. The research team will form hypotheses and will report findings. All research products will be validated with the steering committee, which will prepare the conclusions.

#### 4.3. Project Resources

#### 4.3.1. ES&S

ES&S and Scytl will work collaboratively to leverage the strengths of each company for the purpose of installing and supporting the BALLOT*safe* system. Specifically, ES&S will provide development expertise in the areas of system integration for voter registration and election management systems. The ES&S training department will provide instructional information and facilitate training activities. The ES&S support group will install and coordinate the usage of BALLOT*safe* with Scytl subject matter experts. The ES&S Helpdesk will provide 1<sup>st</sup> and 2<sup>nd</sup> tier level support to the State and local election officials, while ES&S and Scytl will work jointly to provide any 3<sup>rd</sup> tier level support required.

#### 4.3.2. Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the Commonwealth, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department.

# 4.3.3. Academic Researchers

The Commonwealth will utilize outside academic researchers – Michael Alvarez and Thad Hall – for some of the research and analysis efforts. In their academic careers, they have focused on elections, voting behavior, election technology, and research methodologies. The Commonwealth Election Commission believes that the addition of these experts will enhance the quality of the program's research and assist in tackling some of the prevalent challenges facing democratic elections.

# 4.4. Project Strategic Goals

The Ballotsafe Solution voting method will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters.

<u>Goal</u>: Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

# **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentce voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.
- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), the CNMI Government will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

**<u>Plan</u>:** Implement tools and services provided by ES&S and Scytl in a phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving the CNMI Government capabilities to support our overseas voter population.

# 4.5. Research Methodology

The USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements, which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

#### 4.5.1. Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis, considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

#### 4.5.2. Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies in meeting their needs. As a starting point, the Commonwealth Election Commission knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens who are located in remote locations. In addition, although active duty military members complete Federal Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, CNMI residents are likely to experience widely divergent voting experiences depending upon their country of temporary residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries varies

widely. The aforementioned are but a few of the well known challenges faced by our overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

#### 4.5.3. Technology Enhancements

While the CNMI is already aware of many areas where BALLOT*safe* can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to participate in the absentee voting process. This effort will focus on meeting the specific needs of CNMI voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT <i>safe</i> will work in coordination with online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on time.
Absentee Ballot Request	BALLOT <i>safe</i> will provide an online absentee ballot request wizard, which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT <i>safe</i> to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.	Traditional postal delivery and return of ballot requests introduce unpredictable delays into the process, which delay future steps. Voters can often forget when a ballot request is due for an election or may complete it incorrectly.	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them correctly.
Absentee Ballot Delivery	BALLOT <i>safe</i> will provide online ballot delivery of precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot	Traditional postal delivery of ballots is lengthy and unpredictable. It is also costly in terms of	The electronic delivery of ballots through a secure internet based portal will provide consistent access to

	delivery, the BALLOT <i>safe</i> online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	cligible voters, which will improve the successful completion and return rates of ballots.
Absentee Ballot Marking	BALLOT <i>safe</i> will provide an intuitive onscreen marking wizard, which conforms to the highest usability standards that has been tested with a broad spectrum of assistive devices, which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write-ins, straight party voting, candidate rotation, and other critical ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.	Some absentee voters have difficulty understanding ballot content and completing ballots correctly. Voters with disabilities face significant problems marking paper ballots. Furthermore, manual duplication is often required of ballots that are returned. When a voter uses the onscreen marking wizard, BALLOT <i>safe</i> provides a mechanism for the automated replication onto an optical scan ballot.	Voters who use an intuitive and accessible onscreen marking interface will have a higher probability of completing the ballot correctly, which will increase the number of ballots returned successfully. The ballot replication mechanism with BALLOT <i>safe</i> will provide greater operational efficiencies in the return processing of the ballot.
Absentee Ballot Return and Tabulation	BALLOT <i>safe</i> will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT <i>safe</i> will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode, which assist in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot tracking updates are provided to the voter immediately upon processing through BALLOT <i>safe</i> and through email notifications.	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their ballot is returned and if it was accepted. Furthermore, without automated interfaces, there are delays in the processing and tracking of ballots.	The use of an online electronic portal to provide correct return information and return documents will improve the case and rate of successful return of ballots. Automated interfaces and the use of barcodes will shorten the processing delay and shorten the time it takes to provide tracking information to voters.

#### 4.6. Performance Management

#### 4.6.1. Performance Management Approach

To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the USE Program goal and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- Manage project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 4.4. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

# 4.6.2. Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in more detail during the performance planning.

Objective	Measurement of Success		
Improve the rate of completed	Each step in the absentee voting process, the number of		
UOCAVA voting transactions from	voters who complete each phase of the process increases.		
registration to ballot return.	This will be measured on a per election basis, comparing		
	previous election of that type to the current election. For		
	example, the 2012 Primary Election will be compared		
	with the 2008 Primary Election.		
Increase the percentage of UOCAVA	For each Federal Election, there is an increase in		
voters participating and voting in	percentage of UOCAVA voters who participate in at least		
Federal elections.	one portion of the voting process.		
Reduce the failure rates for	Based on a comparison of the average failure rates for		

UOCAVA voters experienced in	each stage in the absentee voting process with the failure		
each of the various stages of the	rates of the current election, there is a decrease in the		
absentee voting process.	failure rate in each stage.		
Provide tools and services that can	The solution provided supports the legal, procedural, and		
benefit other jurisdictions.	technical requirements of other jurisdictions.		
Provide security measures to protect	Data collected through system audit logs, internal		
users' personal identifying	auditing, and interactions with voters does not indicate		
information and any transmitted	that any user's personal identifying information or		
election material.	sensitive election material was compromised in any way.		
Provide evidence and findings	Reports provided through the Commonwealth include		
generated from authoritative and	reliable data, complete analysis, and discerning		
documented research efforts to	conclusions for each of the objectives above.		
measure and report on the success of			
the previous objectives			

#### 4.7. Risk Management

#### 4.7.1. Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- **Risk identification**. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis**. Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- Commence at the Project planning stage, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

- **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.
- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - The risk owner who is the person responsible for managing the response plan
  - The risk response strategy that will be used
  - The description of the mitigation or contingency plan
  - o Any stakeholders impacted by the risk
  - The cost of the risk response
- **Risk Mitigation plans**: This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

#### 4.7.2. Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated accordingly.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems, or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- e. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

#### 5.0 Qualifications – Key personnel and consultants

# Thomas H. Ferguson, National Sales Director, Electronic Ballot Access, Election Systems and Software

Thomas Ferguson is currently serving as the National Sales Director, Electronic Ballot Access and an Election Product Specialist for ES&S. He has approximately ten years of government management experience as the Director of Elections for the Office of the Secretary of the State of Connecticut. Prior to taking the position with the state, Mr. Ferguson served as the Registrar of Voters for the Town of Manchester, Connecticut for six years. Additionally, he is a past-president of the National Association of State Election Directors. During his tenure with the Secretary of the State, he was the Project Manager for the development and implementation of the Statewide, Centralized Voter Registration System. Mr. Ferguson was also the Project Manager for the development of Connecticut's browser based Campaign Finance Information System, as well as systems that house and manage the Connecticut's chief polling place officials. He has an extensive elections and project management background from his 25 years of work and experience in local and state elections.

# Peter M Zelechoski, MBA-TM, CISSP, CISA, Election Systems & Software

Mr. Zelechoski has 9 years experience in the voting systems business sector with experience at county and state levels (US) and in international countries defining, customizing, deploying voting systems, and operating voting systems/machines in elections. Mr. Zelechoski has experience as president, board, committee chair and committee member levels for large and small non-profit and not-for-profit groups. With 30+ years experience in computer systems, he has hands-on experience with data interchange in financial, business, and election applications and as an architect for computer systems integration across platforms, networks, security boundaries. Mr. Zelechoski is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), a member of IEEE P1622 Voting Systems Electronic Data Interchange standards workgroup, and a member OASIS EML task group (Election Markup Language). He has a Master of Business Administration in Technology Management.

# Paul Miller, Business Development Manager, Scytl USA, LLC

Mr. Paul A. Miller, a former State and County Elections Official, is a highly qualified Project Manager, Elections Subject Matter Expert, and Technologist with more than 30 years'+ experience in technology and software development industries, foremost being in State and County Government Elections. He has been called upon by the EAC repeatedly, to provide Election Subject Matter expertise to panels, workshops, working committees, and testimony before the EAC commissioners. He was selected by the National Association of State Elections Directors (NASED) to serve as one of two NASED representatives to the Technical Guideline Development Committee (TGDC). The TGDC is a small panel of national experts tasked to work with the EAC and NIST to draft next generation voting systems standards.

Mr. Miller's election related experience has made him a nationally known subject matter expert within the elections community. Beginning with his tenure as Assistant Elections Superintendent-Data Processing in King County to Senior Technology/Policy Analyst at the Washington Secretary of State, he has gained a comprehensive knowledge of County Administrative Processes, Election Processes and Procedures, State and local Voter Registration Databases, Voting Systems, State Certification procedures, the Federal Testing and Certification Processes, Voluntary Voting System Guidelines and Federal and State Election Statutes. He has led innovative changes to county elections processes, most notably the most extensive use of its day in the nation of high-speed scanning to sort, process, and validate signatures in the absentee return ballot processes. He led the state's efforts to completely modernize its petition/signature checking processes, upgrade its voting system certification program in a high-visibility environment, and develop the state's HAVA- compliant Voter Registration System.

After being the state project manager for the 2010 implementation of U.S. Federal Voting Assistance Program's Electronic Voting System Wizard project in Washington State, Mr. Miller joined Scytl as Business Development Manager in April 2011.

# Aaron Wilson, Project Engineer, Scytl USA, LLC

Mr. Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

#### Thad E. Hall, Ph.D. (Researcher)

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* (Princeton University Press) and *Abortion Politics in Congress: Strategic Incrementalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

# R. Michael Alvarez, Ph.D (Researcher)

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, *New Faces, New Voices: The Hispanic Electorate in America*) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal *Political Analysis*, and co-director of the Caltech/MIT Voting Technology Project.

# 6. Budget Proposal:

# 6.11 Total Budget: \$240,542.00 (\$48,000 + \$192,542.00)

# 6.1.2 Commonwealth of the Northern Mariana Island proposes to add one (1) full time staff to administer the implementation of this project from September 2011 thru December 2012.

The fully burdened internal cost for this one staff member will be \$3,000 USD per month or \$48,000 USD in total for the 16 months of work inclusive of 16.45% fringe benefit.

# 6.1.3 Commonwealth of the Northern Mariana Islands - Saipan Price Proposal from ES&S-SCYTL:

Under the USE program, BALLOT*safe* will be offered by ES&S-SCYTL as a software as a service (SaaS) model in order to facilitate its adoption and use by jurisdictions across the United States and its Territories in a cost effective manner. This model has several price components: Activation and Implementation Services Fees, Annual Right-To-Use License and Service Fees during the Research Program, and ongoing Right-To-Use License Fees and Per Ballot Processing Fees after the Research Program is completed.

For the initial Research Program, which includes the 2012 Election Cycle, the following deliverables will be provided:

Activation and Implementation Services	Software License and Services - 2012
System Activation & Initial configuration	<sup>†</sup> Right-to-use license of BALLOTsafe
Definition of specifications	Election Specific System Configuration
Customization to meet specifications	Secure Primary and Backup Hosting
Installation and deployment	Help-desk / Technical Support
Integration with existing EMS	Enhancements, New Releases & Upgrades
Integration with existing VR	Account Management
Training & Documentation	
Project management	

# **Budgetary Quote for the participation in the USE Research Program**

The budgetary quote to the Commonwealth of the Northern Mariana Islands - Saipan for the participation in the USE Research Program is \$109,143.75, as set forth in the table below. This budgetary quote includes the Activation and Implementation Services and Annual Right-To-Use License and Service Fees through the 2012 General Election Year.

Description	Fee
Activation and Implementation Services:	
Activation, Configuration, Customization, and Documentation	\$37,975.00
System Integration	\$15,000.00
Acceptance Testing	\$3,500.00
Remote Project Management and Research Support Training in Omaha, Nebraska for up to Three (3)	\$15,375.00
Election Personnel. Price includes travel expenses of up to \$4,000.00 per person.	\$15,150.00
Total Activation and Implementation Services	\$87,000.00
Software License and Services – 2012:	

Right-to-use license of BALLOTsafe, Secure	
Primary and Backup Hosting, Help Desk/Technical	\$7,619.00
Support, Software Maintenance and Support for all	\$7,019.00
elections through Nov 2012	
Remote Account Management and Research Data	\$11,375.00
Support	
Election Specific System Configuration	\$3,150.00
Total Annual License Fees and Services - 2012	\$22,144.00
Total Fees	\$109,144.00

#### **Ongoing Fees**

Following the conclusion of the Research Program, Ballot*Safe* is available for use in supporting UOCAVA voters, as well as disabled voters and absentee-by-mail voters. The ongoing Annual Software License and Service Fees will consist of a fixed price per year and a per ballot processing/duplication fee as follows.

Description	UOM	2013	2014	2015	2016
Annual Right-To-Use Software License & Remote Account Management and Research Data Support	License	\$19,844.00	\$20,837.00	\$20,837.00	\$21,880.00
Outgoing Ballot Processing Fee	Each	\$1.00	\$1.05	\$1.05	\$1.10
Incoming Ballot Processing Fee	Each	\$0.25	\$0.26	\$0.26	\$0.27
Automatic Ballot Duplication Fee	Each	\$0.75	\$0.79	\$0.79	\$0.83

#### The above fees entitle the State to the following:

- Right-To-Use License
- Upgrades and Enhancements from Product Roadmap and Bug Fixes
- Help Desk & Troubleshooting Support
- Primary and Backup Secure Hosting
- Remote Research Data and Support
- Remote Account Management

Should the Commonwealth of the Northern Mariana Islands - Saipan require additional Training, Election Specific System Configuration, or other Services not included in the Ongoing Fees table above, those services will be subject to a separate charge to be agreed to by the parties.

# Total Fixed Fees

The total fixed fees budgetary quote (excluding Ballot Processing/Duplication Fees) to the Commonwealth of the Northern Mariana Islands - Saipan for participation in the USE research program through the 2016 General Election Year is \$192,541.50. It is our understanding that all years through 2016 may be funded by the EASE grant program sponsored by FVAP. Should the Commonwealth of the Northern Mariana Islands -Saipan receive 100% funding for the fixed fees of \$192,541.50 and the Ballot Processing/Duplication Fees as calculated by the Commonwealth of the Northern Mariana Islands - Saipan there would be no additional State Funds required for this program other than those required as a result of underestimating the Ballot Processing/Duplication Fees.

**6.1.4 ROI Analysis: 5.2 ROI** for \$192,541.50 Fixed Fees portion = (29%) based on the estimated current 2100 eligible UOCAVA voters increasing to 2300.

# Bridging the Gap: Simplifying the process for UOCAVA voters through innovative technology and data collection

# **Technical and Management Submission**

1) Catalog of Federal Domestic Assistance Number: 12.217

2) BAA number: HQ0034-FVAP-11-BAA-0001

3) Title of Proposal:

"Bridging the Gap: Simplifying the process for UOCAVA voters through innovative technology and data collection."

4) CAGE Code (b)(4) and DUNs Number (b)(4)

5) Identity of applicant and complete list of contractors, and/or sub recipients, if applicable: Ohio Secretary of State, Overseas Vote Foundation (OVF), Carol Paquette (consultant), Online Ballot Provider (to be selected after grant award)

6) Technical contact: Matthew Masterson Deputy Elections Administrator Office of the Ohio Secretary of State 180 E. Broad Street - 15th Floor Columbus, OH 43215 (614) 728-9132 (office) (614) 485-7071 (fax) <u>MMasterson@sos.state.oh.us</u>

7) Administrative/ business contact: Ryan Frazee Finance Division Ohio Secretary of State Jon Husted Office: 614-466-1309 Fax: 614-485-7656 rfrazee@sos.state.oh.us

8) Period of Performance: September 2011 to January 2013

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#### TECHNICAL APPROACH AND JUSTIFICATION

#### 1) Executive Summary (1 page)

The State of Ohio is home to approximately 61,000 active duty military and overseas civilians. Approximately 35,000 of these are active UOCAVA voters in the Ohio election system. In 2008 approximately 32,000 ballots were sent out and slightly over 26,000 returned, resulting in an 80.8% return rate. These statistics suggest two issues: a large number of Ohio UOCAVA citizens are not participating in the electoral process; and those who are attempting to participate are experiencing an unacceptably high non-return rate. This project will test the hypothesis that providing easy to use online access to voter information resources, combined with tools to reduce voter errors and a flexible and predictable ballot delivery process, will result in a higher success rate (defined as % of ballots counted) in the near term for those already participating and over time will increase the participation rate.

Our project will couple our core voter registration and absentee ballot application capabilities with seamless access to UOCAVA voter information and online ballot delivery and tracking to provide a solution for Ohio UOCAVA voters seeking to participate even within a limited timeframe. We will enable a higher level of engagement by all Ohio jurisdictions by providing them with assistance to enhance their websites as well as tools to reduce their applications and ballot processing workload.

Looking to the future and considering the evolving public expectation for convenient access to government services, we propose to develop a mobile smart phone voter registration application. This capability is expected to be of particular interest to younger voters, who are accustomed to using mobile devices for a great variety of purposes, and who might not otherwise participate.

At the core of our project is the use of automated data collection to evaluate each aspect of the online process that voters utilize: viewing information pages, registering and requesting a ballot, downloading and tracking a ballot or utilizing the FWAB. This will provide essential information to enable us to measure how well the UOCAVA voting process is working in Ohio. In addition to the integrated data collection and reporting, we will be able to take full advantage of Google Analytics process and reporting capabilities, to gain insight into the usage of the tools and services by the voters. Project evaluation will be conducted by an academic team headed by a state university professor working in collaboration with the Overseas Vote Foundation (OVF) and our system vendor to provide a thorough analysis of how each of the various elements of the project contributed to voter success with registering, obtaining a ballot, and having their ballot be counted. The tools and procedures we develop will have general applicability for many other jurisdictions and we will share documentation and statistics with any jurisdiction that requests it.

# 2) Goals and Objectives (5 pages)

#### Goal #1 : DEVELOP A UNIFORM STATEWIDE SYSTEM THAT PROVIDES A COMMON SUITE OF AUTOMATED TOOLS FOR ALL OHIO UOCAVA VOTERS

<u>Objective 1</u> – Improve ease of access to voter information

Performance Measures: Adoption of state UOCAVA website tools and services by at least half of Ohio's counties, including 9 largest. Voter satisfaction survey on accessibility of information.

<u>Objective 2</u> – Provide cost effective and sustainable website assistance for counties Performance Measures: Return on investment realized by expansion of tool access to larger pool of users through more web outlets. Reducing cost of participation for smaller counties through centralized development process.

Objective 3 – Reduce LEO processing time and level of effort

Performance Measures: Comparison of data entry time between bar-coded and non-bar coded FPCAs. Comparison of error rate between scanned data entry and manual data entry. Comparison of processing time between bar coded and non-bar coded ballots. Comparison of error rate between scanned ballots and manually transcribed ballots.

# Goal #2 : CREATE TOOLS THAT ADDRESS KNOWN PROBLEMS EXPERIENCED AT EACH STAGE OF THE ABSENTEE VOTING PROCESS

<u>Objective 1</u> – Reduce FPCA failure rates

Performance Measures: Comparison of 2012 and 2008 rejection rates for illegibility; comparison of 2012 and 2008 rejection rates for incompleteness

Objective 2 - Reduce total ballot transit time

Performance Measures: Comparison of total ballot transit time for ballots delivered online to ballots delivered by mail, email and fax. (Total ballot transit time means from the time the ballot is sent out by the LEO until it is returned to the LEO.)

Objective 3 - Increase ballot return rate

Performance Measures: Comparison of percentage of ballots returned by method of ballot delivery, e.g., online, mail, email, fax.

Objective 4 – Reduce number of spoiled votes

Performance Measures: Comparison of rate of spoiled votes (e.g., over-voted) and spoiled ballots (e.g., extraneous marks, illegal marks) for ballots marked online versus ballots marked by hand.

<u>Objective 5</u> – Preserve secrecy of ballot during transcription process

Performance Measures: Compare possible threats to ballot secrecy utilizing the current mail process versus the online ballot creation, printing, and barcoding process to understand the improved level of secrecy being offered and additional steps that can be taken.

<u>Objective 6</u> – Enable voters to track status of their ballot, e.g., when ballot sent out, when received by LEO

Performance Measures: Number of voters who utilize ballot tracking service

# Goal #3 : UTILIZE LOW RISK SUSTAINABLE TECHNOLOGY TO INTERFACE TO COMMONLY AVAILABLE VOTER DEVICES TO IMPROVE ACCESSIBILITY

<u>Objective 1</u> – Enable voters to use their own personal computers to retrieve and mark ballots

Performance Measures: % of voters who choose online ballot delivery versus mail, email or fax, % of voters who retrieve online ballot from location other than their mailing address.

<u>Objective 2</u> – Enable citizens to use personal mobile devices to register to vote. Performance Measures: % of voters who choose this registration method compared to % using other methods.

Goal #4 : IMPLEMENT COMPREHENSIVE AUTOMATED DATA COLLECTION SYSTEM TO MEASURE ELEMENTS OF PROCESS

<u>Objective 1</u> – Provide data needed to evaluate effectiveness of various elements of research project

Performance Measures: Utilization rates for various tools and services; % change from 2008 in FPCAs received, rejected (by reason), accepted; % change in ballots delivered, received, spoiled (by reason), counted; voter participation rates

<u>Objective 2</u> – Provide data to enable measurement of progress towards Ohio's strategic goals (presented in Management Approach).

Performance Measures: Voter participation rate, ballot return rate, % of ballots counted, voter satisfaction measures

To test the research hypothesis and accomplish these objectives, we have divided the project into six tasks. Each of these tasks can be viewed as a separate research module.

# Task 1: Define and Implement UOCAVA Outreach Program.

UOCAVA voters are difficult to communicate with. Ohio's UOCAVA population is fairly evenly divided between military service members and overseas citizens. This requires a broadly based communications plan. The objective is to make voters more aware of their voting rights and how to register and vote, as well as informing them of new channels of service being developed for this program so they will use them. OVF will draw on their extensive experience with the UOCAVA community to develop a communications plan, coordinate it with the relevant parties (e.g., FVAP, Department of State, overseas citizens groups, overseas and military press and local election officials), prepare communications materials for state and county distribution, execute the communications plan and monitor and report on voter response.

# Task 2: Develop and Implement Evaluation Plan.

The evaluation plan will be prepared by a research team headed by a well-known state university professor who is knowledgeable about Ohio election administration as well as UOCAVA processes. OVF will also support this effort. The team will develop the research questions and data collection plan. Upon approval of the plan by the Secretary of State's office, they will implement the data collection plan.

Once the website data collection tools are implemented, a bi-weekly review of key data points will be conducted. This will provide a sense of how the online tools and services are being utilized. Comparable data will be collected about the usage of traditional channels (e.g., by mail, email and fax) to get a comparison between the two. Traditional channel data will provide the baseline against which to assess the effectiveness of the new tools and services. Voter surveys and LEO interviews will also be utilized as data collection mechanisms. System logs and vendor reports will provide input for assessment of technical performance of the online ballot delivery system. Two reports will be prepared; one after the primary election in May and the other after the general election in November.

# Task 3: Expand Voter-Facing Website Tools and Services.

Ohio is already providing advanced online services to UOCAVA voters through an integrated voter-facing set of tools and services. The Ohio Overseas and Military Voter Services website, <u>https://ohio.overseasvotefoundation.org</u>, provides an established base for ongoing improvements in services for UOCAVA voters.

The services currently provided are: 1) Voter Registration and Absentee Ballot Application, 2) Vote-Print-Mail Federal Write-in Absentee Ballot, 3) Voter Help Desk, 4) Election Official Directory, 5) State Voter Information Directory, and 6) My Voter Account. This set of services has assisted thousands of voters since 2008, so they have proven to be useful and sustainable.

The Voter Registration and Absentee Ballot Application is the principal application in the existing suite of Ohio UOCAVA voter services. This online assistance tool streamlines the process of completing the FPCA, reduces voter errors and provides a legible completed form for LEO processing. We propose to add the capability to summarize the FPCA contents in a barcode that can be scanned to reduce the need for manual data entry by the LEOs. This is time-intensive and a potential source for error. LEOs are using barcode technology for other aspects of their work, so this will build on technology already in place. This is a one-time development effort which will be sustainable because it reduces LEO workload. It is also technology that can easily be adopted by other jurisdictions.

We also propose to develop a mobile registration application for iPhone and Android mobile devices to make this basic voting participation function more widely accessible. We expect this to build voter participation, especially among young voters who expect to have the ability to access government services in the same manner that they use for commercial services.

The Vote-Print-Mail FWAB wizard provides a zip code to voting district matching process to present the appropriate federal candidate list for each voter. The voter can complete the FWAB online and also receive complete instructions for returning the ballot including the LEO's mailing address as well as a pre-populated fax cover sheet. An element of the Task 1 Voter Outreach Program is to build voter awareness of the FWAB as a convenient "emergency ballot."

These two tools are currently supplemented with a range of supporting services to provide online registration and voting information. These include:

- Voter Help Desk which provides an extensive FAQ library and also allows voters to submit their own questions and receive personalized answers,
- Election Official Directory which provides a complete contact directory for every Ohio county, and
- State Voter Information Directory which provides Ohio election dates and deadlines and election materials transmission options specifically tailored to military and civilian UOCAVA voters.

We propose two major system developments: 1) to increase the availability of this suite of services to UOCAVA voters by enabling counties to provide these same services on their websites and 2) to expand and improve data collection capabilities for both state and county websites.

<u>County Customization of Websites</u> Voters have a choice of accessing either state or local websites to get voting information and forms. It is our goal to provide a more seamless experience for UOCAVA voters by enabling them to access the same services and information resources whichever site they choose. Making these capabilities more widely available throughout the state is a cost effective way to benefit from the initial investment of creating these capabilities. It also enables counties to share in the benefits of the state's initiatives while incurring only a minimal level of effort and cost.

Increased local jurisdiction adaptation of the Ohio UOCAVA voter services will be achieved through the development and provision of a "customization tool". This will enable counties to create their own sub-domain UOCAVA websites. They can use their own customized website theme and header as well as employ colors, banner and other features to match the look and feel of their local sites. In addition to this tool, we will also provide assistance to counties in modifying their sites. This will greatly expand the availability of the full range of UOCAVA voter services from many more website access points. This enables local election officials to take greater ownership of the UOCAVA voting process and will support their local outreach programs for their voters.

Website Reporting Dashboard We have the ability to collect some data with our current state website. However, to support the research aspects of this project we need more robust data collection and reporting features. OVF will develop a reporting dashboard that will provide real-time access to data and the ability to perform cross tabulation of aggregate data. An interface to define and schedule regular reports will be added. These capabilities will enable us to monitor utilization of various web services as the project progresses as well as support aggregate reporting of findings after the primary and general elections. We will also be able to collect voter demographics which are key to analyzing voter behavior. Every county that adds a UOCAVA page to their website will have the same data collection capabilities so we will have statistics for a large sample of Ohio UOCAVA voters.

# Task 4: Develop Ballot Data Translation Tool

To provide for efficient online delivery of ballots, all of the ballot styles from the 88 Ohio counties have to be stored on a single server. In addition, they need to be converted to a format that can be delivered and marked online. There is no common format for ballot data among the

six election management systems used throughout the state. A ballot data translation tool is required to convert ballot data from the native format used by each election management system into a common format for online ballot delivery. It must also enable translation of the online ballot format back to native formats so the bar code of the vote selections can be scanned by the existing Ballot on Demand printers. This tool will be based on the IEEE P1622 Working Group common data format standard and produce an online ballot that is 508 compliant. The tool will be tested with all six election management systems and three voter registration systems using both primary and general election ballots to ensure that all ballot data, formatting and other features are translating correctly.

#### <u>Task 5: Develop and Implement Online Ballot Delivery and Automated Transcription</u> <u>System</u>

The online ballot delivery and automated transcription system must support the following features:

- 508 compliant
- Capable of supporting multiple languages
- Linking of voter to correct ballot style
- Online ballot presentation with online marking
- Provides all mandatory ballot presentation capabilities, e.g., candidate rotation, straight party voting
- Prevents overvoting, provides undervote warning
- Ensures no vote selection data is retained on voter's computer
- Provides bar coding of vote data to enable automated ballot transcription
- Collects data on system utilization, voter experience and system performance

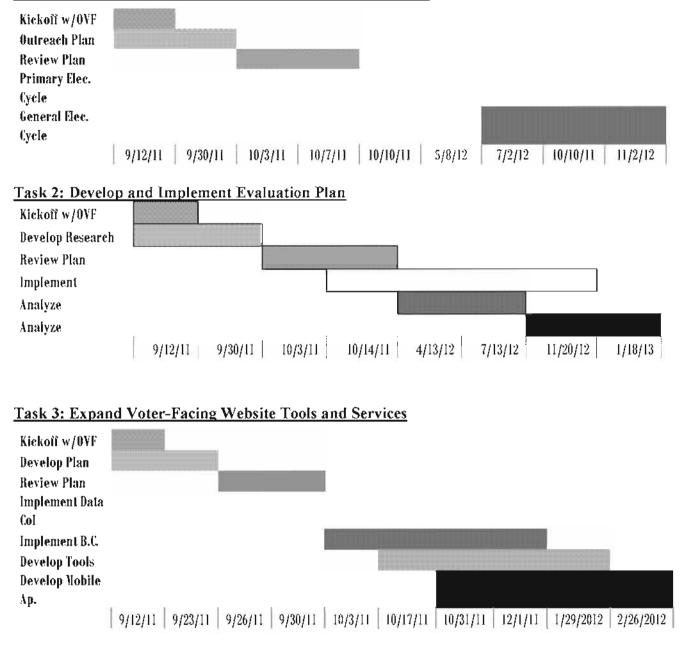
This task will include upgrading Ohio's three voter registration systems to enable EML/XML data transfer of the data elements needed to link voter with correct ballot style. The system will go through acceptance testing before it will be used in an election.

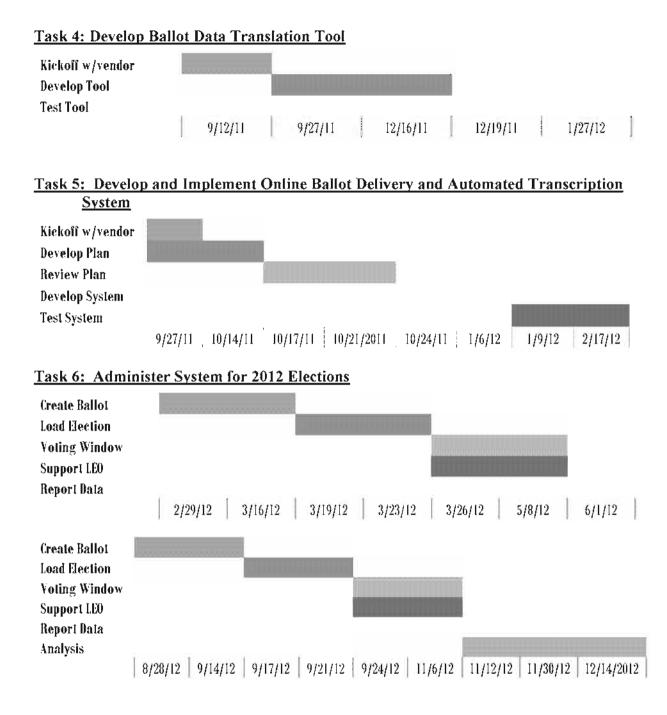
#### Task 6: Administer System for 2012 Elections

After validation of the ballot data translation tool and acceptance testing of the online delivery system, the system vendor will work with the counties to create and proof the ballots for the primary election. When ballot proofing is done, the election will be loaded on the online ballot server and a system readiness test conducted. The vendor will administer the system during the 45 day UOCAVA voting period through post election activities. The vendor will provide 24/7 help desk support for county election offices and voters and maintain a log of queries and how they were resolved. At the conclusion of the election, the vendor will provide the data reports and analysis specified by the evaluation team. The same process and support activities will be followed for the general election. In addition to providing data to the evaluation team, the vendor will conduct an analysis of overall system performance for both the primary and general election.

#### 3) Schedule & Milestones (2 pages)

#### Task 1: Define and Implement UOCAVA Outreach Program





#### 4) Reports (not included in page count)

Programmatic and Financial Progress Reports: The Secretary of State's office will submit periodic progress reports to FVAP to report on how the research effort is proceeding and budget status. Each supporting contractor will be required to submit monthly progress and financial reports to the project manager.

Data Collection Points Reports: Website data collection reports will be produced every two weeks. These will provide statistics on voter utilization of the various online tools and services provided through the website. This will include data on items such as number of online FPCAs and FWABs created, number of online ballots requested, number of voter questions submitted to the help desk, voter demographics, number of site visits, time spent on site, page views. Comparable data on usage of traditional channels (e.g., by mail, email, and fax) will be reported monthly.

Final Report: We plan to deliver two project evaluation reports. The first will report on the research findings through the primary election in May. The second will report on the findings for the period from the primary to the general election in November. The second report will also provide a retrospective evaluation of the entire project. Both reports will address each of the goals and objectives discussed above.

Contractor Reports: In addition to the reports described above, the following is a list of other reports that will be produced by task:

Task 1 - Communications Plan, Analysis of Outreach Program Effectiveness

Task 2 – Evaluation Plan

Task 3 – Project Plan for Development of Voter-Facing Website Tools and Services; documentation for county customization tool, mobile voter registration application Task 4 – Documentation on Pallet Data Translation Tool

Task 4 - Documentation on Ballot Data Translation Tool

Task 5 – Project Plan for Implementation of Online Ballot Delivery System, System Acceptance Test Results

Task 6 – Summary of LEO Help Desk Items and Resolution (primary election), system logs

Task 7 – Summary of LEO Help Desk Items and Resolution (general election), system logs, analysis of overall system performance

# Management Approach (8 page limit)

#### 1) Project Team

The project manager for the State of Ohio will be Matthew Masterson, Deputy Elections Administrator, Office of the Ohio Secretary of State. Mr. Masterson will be supported by a team with years of experience providing cutting edge technology and research tools to UOCAVA voting solutions. See attachment at end of management section for resumes and curricula vitae for all key personnel. A military voting liaison position has recently been added to the staff who will also support this effort. The Secretary of State's office will collaborate closely with county election administrators to ensure this statewide project to make voting more accessible for UOCAVA voters will place very little burden on the local administrators.

For several years the Secretary's office has worked with Overseas Vote Foundation (OVF) to improve our online UOCAVA services. OVF will support this research effort by assisting us in developing enhanced online tools and services as well as implementing a robust automated data collection capability. A solicitation for vendor support for online delivery of blank ballots and ballot tracking will be issued in early August. Based on Ohio's market research there are several firms with the capability to supply and/or develop the required electronic tools and provide other support services necessary to implement and evaluate the proposed research. Project evaluation will be conducted through the collaboration of OVF, an organization whose surveys and other research have yielded significant insight into the UOCAVA community and a state university with in-depth knowledge of Ohio election administration practices.

#### 2) Strategic Goals

Ohio's strategic goals for UOCAVA voting are:

- to ensure that all Ohio UOCAVA voters are fully informed of their voting rights
- to enable UOCAVA voters to achieve the same success rate as domestic absentee voters
- to provide a UOCAVA voting process that is easy to use and accessible for voters
- to proactively monitor achievements, identify areas for further improvement, and reevaluate goals in light of evolving technology developments and legislative mandates

Ohio has instituted a number of measures pursuant to these goals: 1)adopted OVF tools to provide a user friendly website interface that makes it easier for voters to get the information they need to complete the FPCA and FWAB; 2) enabled UOCAVA voters to submit FPCAs by mail, fax or email and receive blank ballots by mail, fax and email; 3) implemented the Uniformed Services and Overseas Absent Voter Ballot Tracking system to allow voters to track the status of their ballot, and 4) added online data collection capability to track how UOCAVA voters utilize these tools.

These efforts have resulted in worthwhile improvements in UOCAVA service for minimal cost. But they are only the beginning of a greater push to better serve UOCAVA voters. Ohio's proposed research targets improvements for the end-to-end processes supporting UOCAVA voting – from initial voter registration through tabulation.

# 3) <u>Definition of Research Project</u>

Post-election surveys conducted by FVAP, EAC and others, as well as our own LEO experiences, have identified the following problem areas:

- 1. UOCAVA voter awareness lack of knowledge of voter rights, election information, and key deadlines; inability to track status of transactions
- 2. Voter registration and absentee ballot request difficult to use, errors in completing and submitting FPCA
- 3. LEO processing of FPCAs incomplete FPCAs, illegible FPCAs, communicating with voters
- 4. Delivering blank ballots to voters transit time, ease of access, flexibility to receive ballot from different location than mailing address
- 5. Ballot marking selecting too many candidates, improper marking, not completing
- 6. Use of FWAB lack of voter awareness, availability of form and candidate information, difficult to use
- 7. LEO processing of returned ballots –privacy of voter's selections, manual transcription workload, transcription errors

Our research hypothesis is that providing easy to use online access to voter information resources, combined with tools to reduce voter errors and a flexible and predictable ballot delivery process, will result in a higher success rate (defined as % of ballots counted) in the near term for those already participating and over time will increase the participation rate. The research strategy is to develop a coordinated suite of voter and LEO tools specifically targeting these known problems. We will develop detailed process descriptions and define performance measures to evaluate the contribution of these tools towards reducing the occurrence or completely eliminating these problems. This will be supported by a comprehensive data collection program to monitor the usage and performance of these tools, to evaluate their effectiveness, to identify other potential areas for future improvement, and to further streamline those tools deemed to be effective so they can be sustained by the state and counties.

The state UOCAVA website will be configured to collect statistics on all voter activities such as viewing voter information pages or downloading an FPCA. Voter history data recorded in the voter registration database will be analyzed to identify the number of successful/unsuccessful registration applications, absentee ballot requests, and ballots returned and counted along with the reasons for the failures. System logs and voter and LEO surveys are additional sources of evaluation data. Section 2) Goals and Objectives in the Technical Approach section summarizes the research goals and objectives and provides examples of the performance measures that will be used to evaluate the success of the project. The evaluation plan developed in Task 2 will lay out the research strategy in detail. In addition to evaluating the effectiveness of the piloted tools, these measures will also help us assess how well we are progressing towards achieving Ohio's strategic goals.

# 4) Proposed Process Improvements to be Examined

<u>Voter-Facing Website Tools and Services.</u> The availability of automated assistants, or wizards, makes FPCA completion easier for the voter and greatly facilitates the use of the FWAB. These

website tools will include reaching to the county level to create county specific voter facing interfaces that would allow the voter a one stop shop for UOCAVA voting information. Local election offices deliver the services that make the electoral process work. The local election official is the voter's gateway to voting participation and the primary recipient of voter communications. It is important for LEO websites to provide clear and easy to find information about the voting process to promote voter awareness and facilitate UOCAVA participation.

<u>Automated FPCA Transcription</u>. When the voter completes the FPCA on-line, the information can be captured in a bar code. When the FPCA is received by the LEO, the bar code can be scanned to directly enter the data into the voter registration pending file. This eliminates the need for time consuming and error-prone manual data entry.

<u>Mobile Voter Registration Application.</u> The rapid adoption of smart phones by the general population is changing the public's expectation for access to government services comparable to the revolution that occurred when Internet access became ubiquitous. Enabling voters to use their mobile devices to submit voter registration and ballot request forms will bring Ohio's customer service channels up-to-date with current public access technology.

**Ballot Data Translation Tool** For efficient online delivery of ballots, all Ohio ballot styles have to be stored on a single server. They also need to be converted to a format that can be delivered and marked online. Developing a data translation tool based on the IEEE P1622 common data format standards will facilitate the movement of data back and forth between the county election management and voter registration systems and the online ballot delivery system. This tool will be applied for the 2012 elections and continue to be used for future elections. If county election management or voter registration systems are modified in the future, this tool will be updated to accommodate these changes to maintain its usefulness. The development of this tool will provide valuable insight into the practical issues that arise when trying to devise a common denominator for multiple proprietary formats.

Online Ballot Delivery System with Automated Ballot Transcription. The use of email and fax makes ballot delivery faster and more predictable than the mail. But these transmission methods add processing steps for both voters and election officials. In addition, fax technology is not readily accessible for voters. In general it has been replaced by electronic methods such as web downloads that do not require special equipment or manual intervention. Adopting this method of blank ballot delivery will greatly streamline the process for both voters and LEOs. This delivery method provides a high degree of certainty that the voter will receive his ballot since he must take an action to retrieve it. It also provides flexibility for the voter to download a ballot at a convenient time as well as from a location other than the mailing address on file with the LEO. This can be a very useful feature for military service members with unpredictable duty assignments.

When a voter prints, marks and returns his ballot, the receiving LEO has to transcribe the votes manually to a ballot that can be scanned by the tabulation device. This process is time-consuming, prone to error and potentially compromises the privacy of the ballot. When the voter marks his selections online, this information can be electronically captured in a bar code. This enables the LEO to automate the transcription process by using a ballot on demand printer to rapidly scan the bar code and print the ballot. This significantly reduces processing time and

eliminates the errors that are inherent in a manual transcription process. Since the bar code is electronically scanned, the LEO does not have to look at the voter's marks, thereby preserving the privacy of the ballot. In addition, the submission of the marked paper ballot creates an audit trail that can be used for audits of the barcodes and used in the event of a recount.

# 5) Project Management

Management of the project will be directly under the supervision of the Ohio Secretary of State's office. All project tasks and budget management will be overseen by the SOS's project manager. The project team has a great deal of experience in the management of federal grants. The State of Ohio has a grant management program for tracking and accounting for the use of federal grant monies.

Contractors will be required to submit project work plans to the project manager for approval. These plans will be used to track actual work progress against scheduled work progress. Frequent technical reviews will be conducted throughout the design, build, and implementation steps of each task as appropriate. Acceptance testing will be conducted to ensure that all system enhancements and new system developments perform as required. Contractors will be required to submit monthly progress reports to document their progress as well as report on budget expenditures.

# 6) **<u>Risk Management</u>**

There are several elements in our risk management strategy:

- Develop a uniform statewide system that provides a common set of tools for voters and election officials. A statewide system will provide the same capabilities for UOCAVA voters from every county – small and large. It enables the development of a common set of procedures and training for local election officials. It simplifies system support requirements which contributes to the sustainability of the improvements over time.
- 2. Use low risk, mature technology that is secure and scalable. We are introducing automated tools that LEOs and voters will find easy to use, that do not require a lot of training, and that are low maintenance.
- 3. Pay attention to LEO needs. Local election officials always find a way to get the job done even when more is required of them and resources are cut. We are proposing to introduce tools for LEOs that will substantially reduce their manual processing workload, reduce error rates and gather the data needed to monitor pilot project success and to respond to federal survey requirements. The Ohio Secretary of State's office already has infrastructure in place to work directly with counties in receiving input and providing training on the tools to be implemented. Specifically the SOS office already utilizes tools such as survey monkeys and webinars to ensure that local election offices are provided feedback opportunities and education on SOS initiatives. Local election offices respond very positively to these opportunities with survey response rates and training attendance being extremely high.
- 4. Be proactive in notifying UOCAVA voters of these new tools. As a general rule, previous UOCAVA pilot projects have not attracted large numbers of participants.

This is due in part to the fact that UOCAVA voters are all over the world, so they are a difficult group to communicate with. Having a significant number of voters participating is essential for generating meaningful research data. Ohio's UOCAVA voters are pretty evenly divided between U.S. and overseas-based military and overseas civilians. We will develop a multi-channel strategy to get the word out to our voters. We plan to utilize the communications capabilities of FVAP and DoD and the Voting Assistance Officer structure to reach active duty military and dependents. We will promote the project on our state and county webpages, employ social media and communicate directly with voters where possible. We will also work with the U.S. Department of State and organizations such as OVF and overseas citizens groups to reach out to overseas civilians. It is our expectation that streamlining the UOCAVA voting process, providing automated voter assistance tools and improving the overall voting success rate will motivate dropout voters to re-engage in the electoral process.

The following are the principal project implementation risks and our mitigation approach:

1. Developing a ballot data translation tool that will work with six election management and three voter registration systems supported by 6 vendors is a complex task. This poses a schedule and cost risk for this particular task. It also poses a schedule risk for the online ballot delivery system task since this is a critical path activity for creating ballots for that system.

Mitigation Approach: Select a contractor with prior experience in translating proprietary election management system (EMS)formats into format for online delivery. Conduct in depth bi-weekly progress reviews. Engender cooperative engagement with EMS and VR vendors.

- Automated FPCA transcription will be a new procedure for LEOs and will require some modification of county VR systems.
   Mitigation Approach: Provide clear procedural documentation and training for LEOs. Begin VR system upgrades immediately upon contract award. Conduct bi-weekly progress reviews.
- Implementation of an online ballot delivery system with automated ballot transcription will involve modifying several LEO procedures.
   Mitigation Approach: Work with LEOs to revise procedures. Provide clear documentation and training on new procedures.
- 4. Enlisting sufficient numbers of voters to use new tools and services is critical for research. Mitigation Approach: Conduct a vigorous and comprehensive voter outreach campaign. Voters who continue to use traditional channels will serve as a control group for comparative evaluation between new online channels and mail, fax and email channels.

The following are potential system security risks and our mitigations approach:

1. Denial of service attacks on the UOCAVA website server or online ballot delivery server could disrupt election operations.

Mitigation Approach: Providing the same tools and services on state and county websites dilutes the impact of a DoS attack against any single server. The 45 day UOCAVA voting period provides some tempering of impact of a DoS attack unless it occurs in the last few days of the voting period. While somewhat of an inconvenience voters can try the system again after service has been restored.

2. The retention of ballot data on the voter's computer could potentially be a risk to ballot privacy, especially in scenarios where voters might be sharing the use of a computer.

Mitigation Approach: The online ballot delivery system is required to erase all ballot data from the voter's computer. This feature will be thoroughly tested to ensure the requirement is met.

3. Scanning bar codes to perform automated ballot transcription is expected to protect ballot privacy because the LEO does not have to read and manually transcribe the voter's choices. However, there may be other privacy concerns raised by barcoding. The submission of the marked paper ballot creates an audit trail that can be used for audits of the barcodes and used in the event of a recount. Mitigation Approach: We plan to examine all the technical and procedural aspects of

this transcription method to identify any remaining privacy issues.

4. The availability of multiple voting channels increases the possibility of voters submitting more than one ballot and having more than one ballot counted. Delivery of ballots by electronic transmission methods is not amenable to traditional paper ballot accounting practices.

Mitigation Approach: Maintaining accurate voter history records and performing rigorous absentee ballot reconciliation prior to tabulation can reduce the possibility of counting more than one ballot per voter.

# 7) Current and Pending Project Proposal Submissions

None.

# 8) **Qualifications**

Resumes and curricula vitae for all key personnel and consultants are.

#### **Evaluation Criteria Compliance Table**

#### FACTOR 1 – SIGNIFICANCE

- Research covers all stages of UOCAVA process. [Technical Approach Goal #2; Tasks 1, 3, 4, 5]
- Online FPCA and FWAB wizards reduce voter errors. *[Task 3]*
- Mobile registration application increases number of registrations. [Task 3]
- Bar-coded FPCAs and voted ballots reduce LEO errors, protect voter privacy. [Tasks 3, 5]
- Online ballot delivery improves ballot delivery success rate, reduces ballot transit time. [Task 5]
- Online ballot marking reduces voter error and number of spoiled ballots. *[Task 5]*

#### FACTOR 2 – SUSTAINABLE

- Bar-coded FPCAs reduce LEO workload and error rate, utilize in-place technology, continued use requires only minimal system maintenance. *[Task 3]*
- Bar-coded voted ballots reduce LEO workload and error rate, continued use requires only minimal system maintenance. *[Task 5]*
- Online ballot delivery reduces LEO workload, saves ballot printing and mailing costs, continued use requires only minimal system maintenance. *[Task 5]*
- Data collection tools support federal reporting requirements, continued use requires only minimal system maintenance. [Task 3]
- Ballot data translation tool will expedite process of creating electronic ballots for future elections *[Task 4]*

# FACTOR 3 – IMPACT

- Statewide system available to all Ohio UOCAVA voters. [Technical Approach Goal #1]
- Addresses all stages of UOCAVA process. [Technical Approach Goal #2; Tasks 1, 3, 4, 5]
- Produces products and processes that are reusable by other jurisdictions: use of bar-coded FPCAs, use of bar-coded voted ballots, ballot data translation tool; mobile registration application; website tools and services for voters; voter communications strategy. [Tasks 1, 3, 4, 5]

# FACTOR 4 – STRATEGIC APPROACH

- Testable hypothesis, research objectives and performance measures defined. *[Technical Approach]*
- Effective risk management strategy. [Management Approach]
- Statewide program covers all stages of UOCAVA process. *[Technical Approach; Tasks 1, 3, 4, 5]*
- Voter outreach program implements a consistent statewide strategy, engages partners (e.g., FVAP, overseas citizens groups) to inform voters about project to generate broad participation; monitors and evaluates success of various elements in recruiting voters (e.g., websites, social media, print, in person). [Task 1]

• Comprehensive evaluation plan documents research questions, data collection and analysis methodology; managed by professor who is expert on Ohio election administration in collaboration with OVF, a recognized leader in UOCAVA research. *[Task 2]* 

#### FACTOR 5 – INNOVATION

- Use of bar-coded FPCAs and ballots to reduce LEO data entry, reduce errors, preserve voter privacy. *[Tasks 3, 5]*
- Ballot data translation tool based on IEEE common data format standards can be adopted by other jurisdictions using any of the six election management systems used in Ohio. *[Task 4]*
- Mobile device registration application can be replicated by any jurisdiction. [Task 3]
- Voter website tools and services, county customization tool can be replicated by any jurisdiction. *[Task 3]*
- Voter outreach program can be replicated by any jurisdiction. [Task 1]
- Online ballot delivery system can be replicated by any jurisdiction. *[Task 5]*

#### FACTOR 6 - SCALABILITY

- Statewide system improvements available to over 60,000 Ohio UOCAVA voters. [Technical Approach Goal #1]
- Use of common off-the –shelf technology makes solutions usable by any jurisdiction. *[Technical Approach Goal #3]*
- Use of common data format standard can be applied by any jurisdiction. /Task 4/
- Use of 508 standard makes website tools and services, online ballot delivery system accessible to broad range of voters. *[Tasks 3, 4, 5]*

#### FACTOR 7 – COLLABORATIVE

- Statewide system developed in collaboration with counties. [Technical Approach, Management Approach]
- Voter outreach program developed in collaboration with counties; materials developed for county use. *[Task 1]*
- Website tools and services are available to all counties to incorporate in their websites. *[Task 3]*
- County customization tool, technical assistance provided for counties to upgrade their websites. *[Task 3]*

#### FACTOR 8 - COST BENEFIT ANALYSIS

• See Budget Proposal for Return on Investment/Cost Benefit Analysis.

#### Resumes & Curricula Vitae for Key Personnel

#### MATTHEW V. MASTERSON

PROFESSIONAL EXPERIENCE

### Ohio Secretary of State, Columbus, OH (May 2011, Present)

Deputy Elections Administrator

- Agency lead for Voting Systems testing and certification.
- Manage agency efforts to fully implement MOVE Act and other technology to aid UOCAVA voters.
- NVRA compliance manager.
- Agency lead for development and implementation for the testing and certification of epollbooks.

**U.S. Election Assistance Commission** (EAC), Washington, D.C. (August 2006-May 2011) *Deputy Director* Testing and Certification Division (2008-Present)

- Lead the development and implementation of the federal government's standards and policies for developing and testing voting systems, known as the Voluntary Voting System Guidelines (VVSG). Including being responsible for review of guidelines for compliance with federal law and industry best practices.
- Provide legal analysis and support to division director in the creation of program policies and procedures.
- Direct supervisor to program computer engineers and support specialist.
- Review and approve division contracts as being compliant with federal contracting laws and agency policies.
- Acted as EAC spokesman for matters relating to voting equipment testing and certification, and test laboratory accreditation.
- Contracting Officer's Technical Representative (COTR) for first ever comprehensive threat analysis of voting systems.

Attorney/Advisor, Testing and Certification Division (2007-2008)

- Created program manuals that contain program policies and procedures for the testing, certification, and decertification of voting systems and accreditation of test laboratories, both of which were voted on and approved by the Commission.
- Manage testing engagements of voting systems applying for federal certification, from initial application through final certification.
- Serve as an expert in applying established laws, regulations, and policies related to the administration of federal elections, such as the Help America Vote Act (HAVA), National Voter Registration Act, Freedom of Information Act, and due process concerns

Special Assistant and Council to Chairman Paul DeGregorio (2006-2007)

- Maintained comprehensive knowledge of the HAVA and the missions, goals, objectives, programs, and functions of the EAC.
- Authored the 2006 Election Incidents Brief for EAC commissioners.
- Assisted General Counsel in preparing the EAC's 2006 Election Crimes report.

#### Matthew M. Damschroder



#### EDUCATION

A.

- 2012 (anticipated) The Ohio State University; John Glenn School of Public Policy Candidate for M.A. in Public Policy and Management
- 1998The Ohio State University; Max M. Fisher College of BusinessBachelor of Science in Business Administration

#### EXPERIENCE

June 2003 - present	Director / Deputy Director, Franklin County Board of Elections Columbus, Ohio					
	<ul> <li>Responsible for the administration of voter registration and elections operations in Franklin County (Columbus), Ohio at the direction of a four- member, bipartisan Board of Elections.</li> </ul>					
	<ul> <li>Oversee an annual budget of more than \$8 million, 42 full and 100 election-season part time employees, and the recruitment and training of more than 5,000 poll workers to serve nearly 820,000 registered voters.</li> </ul>					
	<ul> <li>Managed the selection and installation of an upgraded voter registration system (\$500,000), HAVA-compliant, DRE voting system with VVPAT (\$13 million), and automated absentee ballot processing and tracking system (\$1 million).</li> </ul>					
	<ul> <li>Advocate before Congress and the General Assembly for election law reforms.</li> </ul>					
	<ul> <li>Developed "Champions of Democracy" and "Youth at the Booth" programs to recruit poll workers from the corporate community and local high schools.</li> </ul>					
February 2003 - June 2003	Executive Director, Franklin County Republican Party Columbus, Ohio					
	<ul> <li>Responsible for all aspects of local political organization management, including public opinion research and analysis, message development, media strategy, and fundraising.</li> </ul>					
March 2002 - February 2003	Regional Field Representative, Office of the State Treasurer Columbus, Ohio					
	<ul> <li>Participated in public outreach activities in central and southeastern Ohio that included financial education programs for women and grade-school students, professional education for county and local government fiscal officers, and compliance assistance to recipients of State-backed small</li> </ul>					

business loans.

#### Matthew M. Damschroder

September 2001 -Political Director, Deters for Ohio Attorney General February 2002 Columbus, Ohio Built grassroots coalitions focused on securing endorsements and • support from issues-oriented organizations. July 2000 -Political Director, Franklin County Republican Party September 2001 Columbus, Ohio Assistant Legislative Liaison, Office of the State Treasurer January 2000 -June 2000 Columbus, Ohio Provided analysis of impact of proposed legislation and authored public policy white papers advocating legislative agenda items. Campaign Manager, Mary Eckert for Columbus City Council January 1999 -December 1999 Columbus, Ohio Sales Representative, John Hancock August 1998 -January 1999 Columbus, Ohio Life & Health Agent, Ohio Department of Insurance (license expired)

> Series 6 Registered Representative, National Association of Securities Dealers (license expired)

#### PROFESSIONAL CERTIFICATION

e

2005 Certified Elections and Registration Administrator (CERA) National Association of Election Officials & Auburn University

#### **PROFESSIONAL AFFILIATIONS & ACTIVITIES**

Lifetime Member	Ohio Association of Elections Officials (OAEO) President (2007)
Contributor	United States Election Assistance Commission Absentee Voting & Vote-by-Mail Election Management Guidelines
Panelist	Pew Center on the States Make Voting Work (MWV) Planning Meeting (New York) Capitolbeat.org Presidential Election Workshop (Philadelphia) Electionline.org Midwest Journalist Forum (Chicago) Democracy Index Conference (Columbus, OH) Data for Democracy Conference (Washington DC)
Member	National Association of Election Officials (Election Center) Clinician, 2006 Special Workshop (Albuquerque) Clinician, 2006 National Conference (Chicago)
Vice Chairman	KidsVoting/Central Ohio Board of Directors

# Keith A. Cunningham

Professional Biography

Employment

	<b>Special Projects Ma</b> Ohio	inager	Ohio Secretary of State	e Columbus
	1998-2011 Director of Elections Ohio	Allen	County Board of Elect	ions Lima,
Professional Affiliations	1998-present	Ohio A	Association of Election Officials	Columbus, Ohio
	<ul> <li>President (2005)</li> <li>Trustee (2004-08)</li> <li>Education Committee</li> <li>Ohio Statewide Datab</li> <li>Ohio Election System</li> </ul>	base Con		ł
	2000-Present	Th	e Election Center	Houston, Texas
	<ul> <li>CERA Certificated (2</li> <li>Board of Directors (2</li> <li>2004 Election Reform</li> <li>Chair-Benchmarking</li> <li>Co-chair Professional</li> </ul>	2007-pres n Task F , Task Fo	ent) orce(2005) rce (present)	
	2007-2011		er-Ohio Bd. of Voting achine Examiners	Columbus, Ohio
	<ul> <li>2006-Present</li> <li>Vice Chair (2009-pre</li> <li>Election Recounts wo</li> <li>Chair Voting System</li> </ul>	esent) orking gr	<b>C Board of Advisors</b> oup (2007) is Committee (2008-presen	Washington, DC

#### Patricia A. Wolfe

Ohio Secretary of State's Office Elections Administrator

Worked in the elections profession for over 27 years.

Served eight years with the Coshocton County Board of Elections in the positions of Director and Deputy Director.

In 1992, joined the Ohio Secretary of State's office and has served in the positions of Assistant Elections Administrator, Director of Elections and current position of Elections Administrator.

Certified Elections/Registration Administrator (CERA) since August 1998.

Former chair of the Professional Educational Program Committee, and former member of the Professional Practices Committee and the Ethics Committee of the The Election Center.

In 1998, named an honorary Secretary of State by Secretary of State Bob Taft in recognition of attaining CERA status (only 3<sup>rd</sup> state elections administrator in the nation to receive the CERA status) and for her dedication and commitment to furthering her election knowledge and maintaining high ethical standards in the performance of election duties.

#### CAROL A. PAQUETTE

Ms. Paquette has over 40 years of management and analysis experience in the areas of program and policy analysis, legal and regulatory analysis, process reengineering, and program management of the design and development of special purpose information systems. She has managed 29 projects, including twelve system development efforts and a significant number of process improvement and policy analysis studies. Her management experience spans both private and government sectors. She has authored or co-authored more than 65 technical reports.

#### **EDUCATION**

Ms. Paquette received a B.A. *cum laude* in Political Science from West Virginia University (1964) and a J.D. from Georgetown University Law Center (1980). She has participated in continuing legal education courses in government contracting, contract litigation, Federal Acquisition Regulations, fiscal management, appropriations law, and negotiation techniques, variously sponsored by Georgetown and Harvard Law Schools, the American Bar Association, the D.C. Bar Association, and the Virginia Bar Association. She completed graduate level courses in policy analysis, program evaluation, government budgeting, and organization theory at George Washington University. Ms. Paquette has attended numerous seminars and short courses on business process reengineering, systems analysis and design, communications systems, decision support and management information systems.

#### AWARDS

She was awarded the DoD Civilian Meritorious Service Medal in 1988 for her contributions to the improvement of national security management systems at the White House, and the Office of the Secretary of Defense Medal for Exceptional Civilian Service in 2001 for her work on the Voting Over the Internet project.

#### EXPERIENCE

#### UOCAVA Systems Consultant (2006 – present)

Ms. Paquette is currently assisting the Election Assistance Commission (EAC) in the review and analysis of documentation for the preparation of a global survey of Internet voting projects. She recently assisted with drafting the EAC white paper, "Uniformed and Overseas Citizens Absentee Voting Act Registration and Voting Processes," published in April 2011. She participated in the EAC working group that developed the UOCAVA pilot project testing requirements and reviewed NIST white papers and other documents pertaining to UOCAVA voting standards. She has also provided assistance to several state election offices in the preparation of UOCAVA pilot project legislation.

#### **Operation BRAVO Foundation (2007 – present) Director**

Ms. Paquette is the founding director and Secretary of Operation BRAVO Foundation (OBF), a 501(c)(3) public charity with the mission of assisting U.S. overseas civilian and military voters by engaging in research and educational initiatives to improve the absentee voting process. She is currently managing the OBF tasks for the Military Heroes Initiative grant. OBF is partnered with the Information Technology and Innovation Foundation and Georgia Tech Research Institute. The purpose of this research grant is to improve voting technology and processes for military service members who have sustained severely disabling injuries in the Global War on Terrorism. OBF is analyzing voting assistance practices and election administration procedures to identify the current baseline. Based on this analysis, recommendations will be developed for ways to potentially extend the scope of assistance available. In addition, recommendations may also be made for modifications to election administration practices to better accommodate the needs of these voters.

Ms.Paquette previously served as the OBF project manager for the 2008 Okaloosa Distance Balloting Pilot. This demonstration project examined the operational feasibility and security of a remote electronic voting system operated in three overseas locations. Her duties included working with state and local election officials to define the legal and administrative requirements for the project as well as the testing requirements for the voting system. She provided management oversight for the system vendor's work of tailoring their remote voting product to provide the additional capabilities required by the State of Florida. She prepared the project evaluation questionnaire and assisted in developing operating procedures.

#### Election Assistance Commission (2004 - 2005)

Ms. Paquette served as the Interim Executive Director of the EAC when the agency was first getting organized. Among other duties she provided oversight of the TGDC-NIST voting system standards work. She coordinated with NIST and NASED to finalize a plan for the transfer of test lab certification from NASED to NIST. She also worked with these organizations and EAC staff to develop a strategy for transitioning the voting system testing and certification process from NASED to the EAC. When the permanent EAC Executive Director was selected, Ms. Paquette was assigned to manage the analysis and resolution of public comments received on the draft 2005 VVSG. She prepared issue papers for consideration and decision by the Commissioners and managed the completion of the final VVSG revisions based on the Commission's policy decisions.

#### Federal Voting Assistance Program (1999- 2004) Program Manager, Electronic Voting Projects

**Secure Electronic Registration and Voting Experiment (SERVE)** - SERVE was designed to be a large scale demonstration project using the Internet for registration and voting for absentee military service members and overseas citizens. The SERVE system was one of five worldwide finalists in its category for the 2004 Computerworld 21st Century Achievement Award. Ms. Paquette was the FVAP program manager for this Congressionally-mandated multi-state project. Her responsibilities were creating, communicating and maintaining the vision and objectives of the project; providing project leadership and credibility with the stakeholders (state and local election officials, state and federal legislative staff, senior officials in other DoD organizations and other federal agencies, private sector groups and citizens); identifying, analyzing and resolving issues (policy, legal, technical, contractual, funding, political); and providing technical direction and oversight of the development, evaluation and independent testing teams. Just as system testing got underway, several computer scientists issued a press release alleging that the SERVE system was not sufficiently secure because it operated over the Internet, and should not be used for voting. DoD management felt this claim undermined public confidence in the system and could potentially cast doubt on the integrity of the election results. As a result the project was terminated before the system was fielded.

**Voting Over the Internet -** This groundbreaking project was the first time an Internet voting system was used to cast ballots that were counted in a presidential election. It was awarded First Place in the 2003 Excellence.Gov Awards. The registration application was cited as a best practice and important innovation by the Caltech/MIT Voting Technology Project. Ms. Paquette managed the design, implementation, testing, operation and evaluation of this pilot effort to assess the feasibility of maintaining the integrity and security of the absentee voting process using the Internet.

Prior to her engagement in UOCAVA voting systems work Ms. Paquette held a variety of research and project management positions in the private sector and the Department of Defense.

#### Susan Dzieduszycka-Suinat President and CEO, Overseas Vote Foundation susan@overseasvotefoundation.org

#### Current Organizational Activity and Key Experience

#### Overseas Vote Foundation - Founder and Executive Director, 2005 - present

Ms. Dzieduszycka-Suinat is President, CEO and cofounder of Overseas Vote Foundation (OVF), <u>www.overseasvotefoundation.org</u>, a nonprofit, nonpartisan organization established in 2005 that helps overseas and military voters participate in federal elections by providing public access to interactive web services. 4.75 million individuals visited OVF's 17 voter services sites in 2008.

Ms. Dzieduszycka-Suinat works for the foundation full-time and manages OVF's strategic planning and operations including technical development and oversight of staffing, research, marketing, and alliance programs. She spearheaded the functional specification, development and launch of the complete suite of OVF Internet-based voter services available online today.

OVF's suite of software applications is the first of its kind within the U.S. and a direct outcome of Ms. Dzieduszycka-Suinat's vision for overseas and military voter services that work within today's security paradigm. Her understanding of the real and practical needs of overseas and military voters coupled with her ability to translate these needs into logical, easily accessed technology solutions is demonstrated in OVF's online presence.

- Management responsibility for OVF strategy and operations:
  - Planning, development, maintenance and support for OVF's seven integrated online voter services, reporting and backend content management systems
  - o Organizational development team building, staffing, monitoring, reporting
  - o Revenue development strategy, grant-writing and applications
  - o Assure appropriate legal review for all programs and activities
  - o Capitol Hill and stakeholder relationship development
  - Press and promotional program development and implementation
- Key Accomplishments:
  - Built organization including Executive Board (10), Advisory Board (10), Operations Team (13), Regional Volunteer Team (35) and Alliance Partner Program (8).
  - Executed and published four post-election online voter surveys the OVF survey has become a core part of the OVF program and the largest survey of its kind
  - Developed State Hosted Systems program which licenses the OVF voter services suites to seven states, helping to establish a usability standard in UOCAVA services

#### The Dream Plan, Marketing Consulting - Founder and Managing Director, 1999 - current

Project management organization for small business entrepreneurs Key projects include:

- Overseas Vote 2004 Project Initiative: Product Development and Worldwide Marketing Program Manager
  - Responsible for design, functionality, usability and maintenance of first-ever UOCAVA Internet-based voter registration system and supporting services

- Briefed development team and supported product development for accelerated 3-week timeline
- Developed project and marketing plans and executed against them to register 80,000 UOCAVA voters in the 12 weeks prior to the 2004 election.
- Staffed and launched Help Desk to support voters directly through Internet-base help desk services answering over 7,000 questions in the 12 week period
- Managed approximately 50 person team in activities including, online promotion, link program, support, help desk, reporting and technical response issues
- Responded personally to all public relations program initiatives and press interviews, and directed marketing communications efforts
- o Designed, promoted and executed events to support communications efforts
- Corporate Identity and Websites and Marketing Development for various firms including:
  - o Grace Advisory venture capitol
  - o Eyeshot Elements graphics display system for advertising and promotion
  - Endeavors Technology, secure peer-to-peer networking software technology marketing development in UK and German regions

#### Supporting Experience

#### International Software Marketing

Thirteen years in software marketing with UNIX Leader Santa Cruz Operation (SCO)

Key roles included:

- OEM Marketing Manager, Europe, Middle East and Africa responsible for partner marketing program development and execution. Accounts included, Compaq, IBM, Olivetti, Unisys, Siemens and HP
- Director of Marketing, France and Spain responsible for entire marketing mix for regional subsidiary including press and public relations, channel marketing, training program marketing, advertising and promotional marketing activities
- North American Channel Marketing Manager distribution channel marketing program development and execution with key channel partners. Managed 5-person core team.
- Technical Marketing Manager supporting role to key sales staff and marketing development teams

Education:	Bachelor of Arts, Environmental Studies, University of California, Santa Cruz;
	Marketing Program Certification in Organizational Development, Large-Scale Project
	Management and Marketing, University of California, Berkeley
Citizenship:	American
Languages:	Native English, fluent in French and German
Other:	Lived overseas for 17 years; currently living in Munich, Germany with husband and two children

# DR. CLAIRE M. SMITH

#### (b)(6)

#### RESEARCH AND ACADEMIC EXPERIENCE

# **Overseas Vote Foundation,** September 2008 – Present *Research Program Director*

- Oversaw analysis of 2008 and 2010 voter and local election official post-election surveys
- Conducted original research on the impact of state UOCAVA policies on voters. This paper created an UOCAVA State Policy Index in order to determine which states have been the most progressive in implementing federal standards. I then tested hypotheses about the effect of these laws on ballot return rates, ballot rejection rates, and voter satisfaction using EAC aggregate data and OVF survey data.
- Editor and contributor to monthly research newsletter, including articles on indentifying the correct number of UOCAVA voters and evaluating available data sets
- Organized academic panels for UOCAVA Summit 2010 and Summit 2011, including theme development and speaker recruitment
- Prepared materials for research and outreach grant proposals for the Carnegie Corporation, Pew Center on the States
- Prepared testimony for congressional hearings, as well as answering questions from congressional staff regarding the impact of policy
- Answered questions from the "Voter Help Desk," communicating to voters around the world

#### **Carl von Ossietzky Universität**, Oldenburg, Germany, 2005 - 2006 *Adjunct Professor, Department of Political Science*

• Classes Taught: Federalism in the U.S., Voting and Participation in the U.S., Parties and Organizations in Germany

#### University of Notre Dame, South Bend, IN, 2000 - 2002 Teaching Assistant and Research Assistant

- TA for: Introduction to American Politics, Introduction to Comparative Politics
- Collected data for projects investigating the impact of women's suffrage (with Prof. Christina Wolbrecht), social capital and state policy outcomes (with Prof. Rodney Hero)

#### MANUSCRIPTS

"It's in the Mail: The Military and Overseas Voting Experience," (with Judith Murray), book manuscript in progress

"Barriers to Overseas Voting and Satisfaction with the Voting Process," (with Thad Hall) Journal article

#### **EDUCATION**

University of Notre Dame, South Bend, IN PhD Political Science, May 2005

- First Field: Comparative Politics; Second Field: American Politics
- Subspecialties: political parties, party systems, federalism, electoral systems
- Dissertation: "Money to Burn: Party Finance and Party Organization in Federal Countries"

#### University of Notre Dame, South Bend, IN

MA Political Science, January 2002

• Master's Thesis: "Dimensions of Political Finance Legislation in the U.S. States: An Institutional Exploration"

Radford University, Radford, VA BA Political Science and German (magna cum laude), May 1999

#### ADDITIONAL CERTIFICATIONS AND QUALIFICATIONS

ICPSR Training Program in Quantitative Methods of Social Research, University of Michigan Summer 2000

Cambridge Certificate in English Language Teaching to Adults (CELTA), Hamburg, Germany July 2006

#### ENGLISH TEACHING EXPERIENCE

#### Bildungswerk Cloppenburg, Cloppenburg, Germany, 2009 Consultant and English Teacher

• Created and implemented new certificate course in Business English, including syllabus design, literature selection and setting end of course standards

CNC Language Network, Cloppenburg, Germany, 2006–2008 Owner, English Teacher

- Sales responsibilities included identifying, visiting and making presentations to clients
- Negotiated prices and terms of payment with clients
- Conducted needs analysis for customers and designed courses to meet customer needs
- Organized teachers, work schedules, and other personnel issues
- Management duties included planning and implementing marketing strategy, accounting, and customer service relations

inlingua Sprachschule, Oldenburg and Cloppenburg, Germany, 2004 – 2005 English Teacher

#### CONFERENCE PAPERS

*"When No One Can Knock on Your Door: Getting Out The Vote to Overseas Americans."* Presented with Paul Herrnson and Michael Hanmer. Annual Meeting of the American Political Science Association, September 2011.

*"Time to MOVE: Overseas and Military Voter State Policy Innovation."* Midwest Political Science Association Conference, April 2011.

"Overseas Voter Satisfaction in 2010." Presented with Thad Hall. Midwest Political Science Association Conference, April 2011.

"Defending Votes: Legislative Policy and Military Voting." Midwest Political Science Association Conference, April 2010.

"It's in the Mail: Surveying UOCAVA Voters and Barriers to Voting." Annual Meeting of the American Political Science Association, September 2009.

"Ask and then Ask Again: Party Finance Laws and the Rise of Fundraising in Canada and the U.S." Midwest Political Science Association Conference, April 2005.

"The Ties that Bind: Party Finance and Party Organization in Canada and the U.S." Northeastern Political Science Association Conference, November 2004.

"Money to Burn: Party Finance and Party Organization in Germany and Austria." Midwestern Political Science Association Conference, April 2004.

"Dimensions of Political Finance Legislation in the U.S. States: An Institutional Exploration." Midwestern Political Science Association Conference, April 2002.

"Where's the Party? Federalism and Political Finance in the United States and Germany." Annual Meeting of the American Political Science Association, August 2001.

"Democracy's Dilemma: The Role of Political Culture in Democratic Consolidation." Presented with Karrie Koesel at the Midwestern Political Science Association Conference, April 2001.

"Adapting Consociationalism: Viable Democratic Structures in Burma." International Studies Association – Midwest Conference, October 2000.

#### <u>AWARDS</u>

Kaneb Center Outstanding Graduate Student Teacher Award, *University of Notre Dame*, April 2002 Outstanding Student of the Year, *Radford University*, 1999

#### SCHOLARSHIPS AND FELLOWSHIPS

Kellogg Institute Dissertation Year Fellowship, *University of Notre Dame*, 2003-2004 Friedrich Ebert Stiftung Dissertation Support, *Germany*, 2002-2003 Nanovic Institute Dissertation Fellowship, *University of Notre Dame*, 2002 - 2003 Kellogg Institute Seed Money for Graduate Students, *University of Notre Dame*, Summer 2002 Downs Summer Training Travel Grant, *University of Notre Dame*, Summer 2000 Zeta Tau Alpha Foundation Achievement Scholarship, 1999

#### PROFESSIONAL MEMBERSHIPS AND SERVICE

American Political Science Association (APSA) Midwest Political Science Association (MWPSA) American Citizens Abroad (ACA), Country Contact for Americans in Germany

• Participated in Overseas Americans Week 2009, 2010 (OAW) in which representatives of three major overseas citizen advocacy organizations meet with legislators, staffers, and key government agencies

#### ADDITIONAL SKILLS

Foreign Languages German (fluent), French (some spoken)

#### REFERENCES AVAILABLE UPON REQUEST

# Bridging the Gap: Simplifying the process for UOCAVA voters through innovative technology and data collection

#### Cost Proposal

1) Catalog of Federal Domestic Assistance Number: 12.217

2) BAA number: HQ0034-FVAP-11-BAA-0001

3) Title of Proposal:

"Bridging the Gap: Simplifying the process for UOCAVA voters through innovative technology and <u>data collection</u>."

4) CAGE Code (b)(4) and DUNs Number (b)(4)

5) Identity of applicant and complete list of contractors, and/or sub recipients, if applicable: Ohio Secretary of State, Overseas Vote Foundation (OVF), Carol Paquette (consultant), Online Ballot Provider (to be selected after grant award)

6) Technical contact: Matthew Masterson Deputy Elections Administrator Office of the Ohio Secretary of State 180 E. Broad Street - 15th Floor Columbus, OH 43215 (614) 728-9132 (office) (614) 485-7071 (fax) <u>MMasterson@sos.state.oh.us</u>

7) Administrative/ business contact: Ryan Frazee Finance Division Ohio Secretary of State Jon Husted Office: 614-466-1309 Fax: 614-485-7656 rfrazee@sos.state.oh.us

8) Period of Performance: September 2011 to January 2013

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#### **FVAP Grant Tasks and Estimated Budget**

#### Overseas Vote Foundation (OVF)

 VOTER-FACING WEBSITE TOOLS AND SERVICES: OVF to enhance the "voterfacing" tools and services from registration through to data transfer, in addition to the information tools and services that will support voter participation. Confirmed that data can move from our system into any other balloting system. OVF to be project lead on data collection information and automatic data reporting.

#### \$100,000

 REPORTING DASHBOARD ENHANCEMENTS: Add key features to the reporting. dashboard to support data collection and reporting aspects of the grant.

#### \$13.000

 COUNTY CUSTOMIZATION TOOL/BARCODE: Develop a new system application that allows Ohio election officials to create their own customized (colors/banner) sites which they can promote through their county and to do pro-active online outreach, however, the numbers/data would run up to the Ohio SOS office.

#### \$60,000

 MOBILE VOTER REGISTRATION APP: develop an optimized iPhone and Android interface for the Ohio voter registration process.

#### \$18,000

- PROJECT ANALYSIS AND REPORT DEVELOPMENT: OVF Research Team to take responsibility for developing the analysis and report for the project as a whole. This includes automatic data collection during the project and a post project report. Items to be highlighted via automatic data collection are participation rates, online interface use, breakdown between military and overseas non-military voters, and usability information via web surveys. \$25,000
- SOFTWARE LICENSING COSTS, ACCOUNT MANAGEMENT, TRAINING, **UPGRRADES, MAINTENANCE:** OVF to provide system support including training, upgrades, maintenance and licensing for first time software installation.

\$80,000

TOTAL: \$296,000

#### In-State College or University Component

 RESEARCH METHODOLOGY DEVELOPMENT, PROJECTS ANALYSIS AND REPORT DEVELOPMENT: The Secretary of State will select an academic lead to assist OVF with developing the research methodology, project analysis and report development \$75,000

#### TOTAL: \$75,000

#### Vendor (to be determined by competitive bid)

• ONLINE BALLOT DELIVERY & TRACKING SYSTEM – Vendor to provide and administer an online ballot delivery system that integrates with all Ohio Counties so all Ohio UOCAVA voters are able to utilize it. The ballot should be presented online and be able to be marked online. The ballot should then be printable to be sent back. The ballot delivery system will offer accessibility for voters with disabilities including complying with Section 508 guidelines.

Vendor will provide an online ballot tracking system by which UOCAVA voters can access the SOS website and already existing SOS tracking system and receive an update on the status of their ballot. This should include registration information, ballot request application, ballot mailing (if applicable), and ballot submission. Vendor and OVF will work together on the forward facing aspect of this application. Vendor to provide a solution that allows for the scanning of a bar code on the return voted ballot that then creates an image of the voted ballot for printing by a ballot-on-demand printer or other printing device. This would eliminate the need for counties to hand transcribe returned UOCAVA ballots. **\$475,000** 

• BALLOT TRANSLATION TOOL – Vendor will use a common data format for the creation of the online ballot delivery system and ballot transcription process. This data format should be based on the IEEE P1622 working group data format. In addition, vendor will create a tool or application that translates the various data formats from the counties into this common data format in order to create the ballot and translates it back to the counties data format for creation of the bar code and ballot transcription. The data format will also include data elements necessary for OVF to assess the impact of the project on the participating of UOCAVA voters.

\$75,000

• SOFTWARE LICENSES, HELP DESK, AND COUNTY SUPPORT – vendor to provide full help desk support to all UOCAVA voters and counties in the state of Ohio. This includes 24/7 support throughout early voting, election day and post election

manage and support grant work. This includes purchase of any necessary software or hardware for management of the project. Additional misc, costs may include office supplies, outside expert contracts for grant management and review process.

\$100,000

\$1,906,000

#### TOTAL: \$700,000

#### State of Ohio

• BALLOT ON DEMAND PRINTERS - State needs to purchase BOD's statewide. These BOD printers must be able to scan (or take a scan) of a barcode and print the ballot.

activities for the 2012 Primary Election and 2012 General Election.

\$440,000 • VOTER REGISTARTION SYSTEM UPDATE - State to contract with county voter registration system vendors to upgrade counties using Dims, Triad or other vendor voter registration systems to include the necessary XML/EML packets and transfer abilities.

# \$250,000

 BARCODE SCANNERS – Purchase barcode scanners for those counties that do not already own them. This will enable all counties to scan FPCA and online marked returned ballots via barcode in order to automate the transcription process.

• **GRANT MANAGEMENT AND MISC. COSTS** – SOS Office to use funds to help

#### \$45,000

## TOTAL: \$835,000

## **TOTAL GRANT REQUEST:**

\$150.000

#### **Return on Investment**

The current UOCAVA process and data collection capabilities make it difficult to project the potential return on investment from this research in quantitative terms. There are widely differing levels of UOCAVA support available on county websites, and the SOS office has a limited data collection mechanism based on the Election Assistance Commission's required information. One of the principal goals of this effort is to implement a common set of UOCAVA tools and services statewide, along with the ability to track and analyze their usage. This will not only provide a much improved level of service for Ohio's UOCAVA voters; it will also give the SOS the means to measure and understand the impact created by various elements of the research project.

The return on investment of this project will not be limited to the 2012 election cycle but will accrue over time as these innovations and data collection continue to be used. Ohio will sustain the elements of this project that prove effective and utilize them for multiple election cycles. This will allow comparable data analysis to take place over several election cycles which will lead to a streamlined, scalable, and efficient UOCAVA voting process.

Many of these innovations will replace current methods resulting in future cost savings. For example, we anticipate phasing out email and fax (except on an emergency basis) and using only online ballot delivery and marking for Ohio's UOCAVA electronic ballot delivery channel. Our goal is to transition the bulk of UOCAVA transactions to electronic channels therefore greatly reducing manual processing of paper-based transactions. This evolution alone will have a huge impact on the cost of administering UOCAVA voting in the State of Ohio.

Ohio believes strongly in the sharing of best practices and data in order to improve the administration of elections both inside and outside of the State. The tools, processes, and data collected through this research could be utilized by many other jurisdictions with little or no modification. Ohio hopes to develop best practices, as result of the research done as a part of this grant, that it will share with its own counties and other interested election jurisdictions. This further increases the denominator of the cost benefit ratio.

Because we have constructed our research strategy to develop tools and services to address these specific problem areas we are confident the following results will occur:

- The number of successful registrations will increase
- The number of successful absentee ballot applications will increase
- The number of information queries will increase
- The number of successful ballot transmissions will increase
- The number of successfully marked ballots will increase
- The number of successful ballot returns will increase

We will carefully examine and evaluate all these factors in the course of the research project to be prepared to calculate a quantifiable return on investment analysis in our final report.

## **Proposed Grant Project: Detailed Cost Estimate**

Price List For (Responsible Party)	Total Cost	Direct Labor	Admin.	Travel/ overhead	Consultants/ Vendors	Materials	Direct Costs (Development, etc.)
Project Assessment and Research (In-State University)	\$75,000	\$0	\$0	\$1,000	\$74,000	\$0	\$0
Online Ballot Deliver/Tracking* (Vendor)	\$475,000	\$0	\$0	\$0	\$475,000	\$0	\$0
Ballot Translation Tool* (Vendor)	\$75,000	\$0	\$0	\$0	\$75,000	\$0	\$0
Software Licenses/Help Desk/Count Support* (Vendor)	\$150,000	\$0	\$0	\$50,000	\$100,000	\$0	\$0
Ballot-on- Demand Printers (State of Ohio)	\$440,000	\$0	\$0	\$0	\$0	\$440,000	\$0
Voter Registration System Update (State of Ohio)	\$250,000	\$0	\$0	\$5,000	\$245,000	\$0	\$0
Barcode Scanners (State of Ohio)	\$45,000	\$0	\$0	\$0	\$0	\$45,000	\$0
Grant Management/ Misc. Costs (State of Ohio)	\$100,000	\$0	\$15,000	\$10,000	\$60,000	\$5,000	\$10,000

\* The Online ballot provider will be selected via a competitive bid process after the award of grant money.

Price List For (Responsible Party)	Total Cost	Direct Labor	Admin.	Travel/ overhead	Consultants/ Vendors	Materials	Direct Costs (Development, etc.)
Reporting Dashboard Enhancements (OVF)#	\$13,000	\$1,000	<b>\$7</b> 00	<b>\$7</b> 00	\$0	\$0	\$10,600
County Customization (OVF)	\$50,000	\$2,5000	\$2,5000	\$2,500	\$0	\$0	\$42,500
Mobile Application (OVF)	\$18,000	\$1,000	\$1,000	\$1,000	\$0	\$0	\$15,000
Bar Code Technology (OVF)	\$10,000	\$1,000	\$500	\$500	\$0	\$0	\$8,000
Mailing List Signup Integration (OVF)	\$10,000	\$1,000	\$500	\$500	\$0	\$0	\$8,000
Design Customization (OVF)	\$5,000	\$0	\$250	\$250	\$0	\$0	\$4500
Project Research and Report (OVF)	\$25,000	\$21,000	\$1,250	\$2,750	\$0	\$0	\$0
Data Transfer Integration (OVF)	\$25,000	\$0	\$1,250	\$1,250	\$0	\$0	\$22,500

# All OVF price information is based on information submitted by OVF to the Ohio SOS office in creating this grant application.

Price List For (Responsible Party)	Total Cost	Direct Labor	Admin.	Travel/ Overhead	Consultants/ Vendors	Materials	Direct Costs (Development, etc.)
Additional Auditing & Security Review (OVF)	\$30,000	\$0	\$1,500	\$1,500	\$0	\$0	\$27,000
508 Compliance (OVF)	\$35,000	\$0	\$1,750	\$1,750	\$0	\$0	\$31,500
Voter Outreach Program (OVF)	\$25,000	\$10,000	\$1,250	\$3,750	\$5,000	\$5,000	\$0
Server Hosting Services (OVF)	\$15,000	\$0	\$750	\$750	\$0	\$0	\$13,500
Licensing – upgrades, admin, training (OVF)	\$35,000	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$1,906,000						

**Okaloosa County, Florida** 



Paul Lux, Okaloosa County Supervisor of Elections

#### Response to

# Defense Human Resources Activity Federal Voting Assistance Program (FVAP)

TECHNICAL PROPOSAL Catalog of Federal Domestic Assistance Number: 12.217 BAA number: H98210-BAA-11-0001 Florida Multi-County Absentee Ballot Delivery Project CAGE Code:<sup>(b)(4)</sup> DUNS Number:<sup>(b)(4)</sup>

> Applicant: Okaloosa County (on behalf of Our Mission: Your Vote the counties of Baker, Bay, Bradford, Clay, Duval, Escambia, Leon Nassau, Okaloosa, Pinellas, Putnam, Sarasota and Wakulla) contracting with Democracy Live and Microsoft

> > Technical contact:

#### Paul Lux

302 Wilson St. N, Suite 102 Crestview, FL 32536 Ph:(850) 689-5600 Fax:(850) 689-5644 plux@co.okaloosa.fl.us

Administrative/business contact: Same as Technical Contact

Proposed period of performance:

January 2012 – November 2016

Submitted July 11, 2011

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### Volume I

#### **Technical Approach and Justification**

#### 1. Executive Summary

This application is presented by Okaloosa County, Florida on behalf of the Florida coalition of counties (known hereafter as Our Mission: Your Vote or the consortium) to request funding in support of our acquisition and implementation of a web-based electronic ballot delivery system for our military and overseas citizens. Our goal is to provide greater access to online tools in order to make the voting process easier, simpler and more effective for our UOCAVA voters.

Our Mission: Your Vote recognizes that UOCAVA voters traditionally have a lower voting percentage than domestic voters. The MOVE Act was passed to narrow the gap between UOCAVA and domestic voters. A web-based electronic registration and ballot delivery system will ensure that our County will be in full compliance with the MOVE Act while eliminating the gap between UOCAVA and domestic voters.

The vendor we have selected for this project is Democracy Live, in partnership with Microsoft Corporation. Democracy Live will work with Microsoft Services to develop and deploy a comprehensive set of Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) voter services for Our Mission: Your Vote. This solution integrates Democracy Live's LiveBallot (Software as a Service) solution built on the Microsoft SQL Azure Platform.

The LiveBallot technology was developed by Democracy Live in partnership with Microsoft Corporation and guidance from the University of Washington Center on Technology and Disabilities. LiveBallot has been used in over 200 U.S. jurisdictions since 2008 and has been approved for funding by both the Department of Defense, via the EVSW pilot, and the Department of Health and Human Services under HAVA Section 261.

The team of Democracy Live and Microsoft will extend existing technologies for online identification of our voters, classification of voters under current Florida election law, voter registration assistance, and logging the voter usage of online voter services.

The resulting solution will enable Our Mission: Your Vote to provide complete voter services to our UOCAVA voters. Voters will be provided full services such as voter registration links, absentee ballot notifications, ballot delivery, and ballot tracking. The County will be able to provide complete usage data and reporting of each voter service.

Our Mission: Your Vote is grateful for the opportunity to apply for the EASE Grant. We look forward to working with the Federal Voting Assistance Program (FVAP) and contributing to FVAP's one-stop portal for millions of UOCAVA voters. It is our desire to join with the FVAP to ensure our military and overseas voters are able to cast their ballot, and have it counted, from anywhere in the world as easily as if they were voting in person at a polling place.

#### 2. Goals and Objectives

After a thorough review of the available options, Our Mission: Your Vote has chosen the Democracy Live team, and the LiveBallot system as our preferred solution. LiveBallot offers a proven, robust and reliable solution that will not only meet our immediate MOVE Act requirements, but will deliver a long term solution capable of expanding to meet our current and future goals and objectives.

The primary goals of this project are to increase Our Mission: Your Vote's UOCAVA voter participation base, as well as gather and provide comprehensive data detailing UOCAVA voter activities. More specifically:

- Develop and deploy new technology that will not only integrate with the existing voter database systems, but will also provide complete web-based voter services for our UOCAVA voters. Our goal is to deliver a voter life-cycle website which will include, but is not limited to, voter registration links, ballot request, ballot delivery, and ballot tracking.
- Develop and deploy innovative data tools to provide a comprehensive statistics gathering of the UOCAVA voter services and activities for each election.
- Reduce our overall long term costs of managing and supporting MOVE ACT compliance and UOCAVA services.

Key objectives for this project include:

- Provide tools for citizens of Our Mission: Your Vote's counties to register to vote, determine their UOCAVA eligibility, complete an absentee ballot application and complete an absentee ballot if eligible.
- Improve ballot access for Our Mission: Your Vote's UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials.
- Provide a solution that Our Mission: Your Vote can build upon in the future as legislative needs catch up with the available technology.
- Provide an overall long term cost-effective solution for Our Mission: Your Vote elections.
- Provide analytical information regarding the usage of the solution.

To successfully meet the above stated goals and objectives for Our Mission: Your Vote the resulting solution must offer:

#### A Reliable, Proven System

Our vendor and their proposed system has been used in over 200 U.S. elections, delivering ballots to thousands of voters in over 60 countries since 2008.

LiveBallot is hosted on Microsoft's Windows Azure platform, providing 99.99% up-time reliability. Windows Azure delivers millions of transactions each month and is capable of automatically scaling up to meet any influx of voters to the system.

#### Improve the Voting Experience for Our Voters

LiveBallot offers a variety of features and functions that directly improve our voters' balloting experience. By providing an easy to use, online interface, our voters can access their ballot at their convenience. This is especially important to overseas military voters given the obvious time-zone difference as well as the unpredictable schedules of deployed troops. The LiveBallot administrative interface allows us to customize the way the information is presented to our voters, instruction text, messages, as well as the way our LiveBallot site interacts with our voters.

#### Reduce the Failure Rates of UOCAVA Voters

This proposal has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas of focus are:

- Voter Registration
- Ballot Delivery
- Ballot Return

Historically, the biggest challenge in UOCAVA participation is slow ballot delivery and return. This grant will enable us to deliver new initiatives and technologies to meet our goal of eliminating the gap between our domestic absentee and UOCAVA voters.

Grant funding will allow us to provide voters with an intuitive process to register online and receive notification of ballot availability. In addition it will greatly improve the speed by which ballots are delivered to and from our UOCAVA voters. Streamlining this process will reduce the failure rates of UOCAVA voters.

#### Provide a UOCAVA Solution Capable of Advancing with Technology

LiveBallot is built on a solid core foundation with a robust *modular architecture*. LiveBallot's modular architecture provides three key advantages: reliable updates, components that can be enabled when we are ready, and the addition of features and improvements over time. The Democracy Live team is able to keep our solution current with the latest LiveBallot updates while continuing to build new features and improvements to meet our future needs.

The Democracy Live team understands the dynamic nature of technology and its effect on the election process. They understand our desire to utilize the best technology, as well as the necessity of never disrupting the voting process. The LiveBallot architecture will enable us to achieve both of these objectives while delivering uninterrupted content to our voters.

#### Save on Costs and Overhead

LiveBallot utilizes the cost benefits of a cloud based solution by using Microsoft's Windows Azure platform. Using a web-based application, we do not need to acquire additional IT personnel, purchase or maintain any server equipment, spend time developing and testing software, or worry about managing updates. Additionally, when an election drives heavy voter traffic, we are not limited due to pricing plans or server resources, nor will we incur extra charges due to high bandwidth usage.

#### **UOCAVA Improvement Projections**

We project that by fully deploying this new technology, we will dramatically streamline and speed the balloting process for our UOCAVA voting population, as well as save significant staff time complying with the mandates of the MOVE Act.

- We anticipate our ballot return rate will improve by well over 50% with the goal of eventually eliminating the ballot return gap between UOCAVA and domestic voters.
- We anticipate UOCAVA voter registration will increase by over 35%.
- We anticipate that our UOCAVA voter participation rate will increase by over 35%.
- We anticipate the percent of ballots delivered to ballots received will climb by over 40%.
- We anticipate voter confirmation (ballot tracking) will climb by over 75%.
- We anticipate that our UOCAVA statistical reporting metrics and data aggregation tools will dramatically improve, thus enhancing our overall data metric reporting by over 75%.
- We anticipate that our staff time complying with the MOVE Act requirements will fall by over 60%.

Ballot return rates are estimated to be similar to the national ballot return rates listed below:

Absentee Ballot Return Rates:

- 91%= General Population
- 67%= UOCAVA voters

The key metric for this consortium is to improve the ballot return rate for UOCAVA voters by at least 50% over the next election cycle, and moving towards future goal of a zero gap between UOCAVA voters and domestic voters by 2016.

#### The Proposed Our Mission: Your Vote UOCAVA System

The FVAP funding will ensure Our Mission: Your Vote offers an intuitive, one-stop, seamless process to register online, receive notification of ballot availability, access and mark the ballot online, and dramatically improve the ballot return rate.

Summarized below is an overview of our proposed LiveBallot system and its key features which offer us the specific tools to meet our goals and objectives for this grant.

– Voter Specific, On-Demand Ballot Lookup

The LiveBallot system offers a Web-based, on-demand, voter specific ballot lookup. Using the LiveBallot system, voters from anywhere in the world can access their specific ballot online. This is a key feature of LiveBallot and eliminates the need for our staff to manually send email or paper ballots individually to each registered UOCAVA voter.

#### – Online Federal Postcard Application (FPCA)

The LiveBallot system features optional links for a voter to electronically complete and submit the FPCA registration forms to ensure the UOCAVA voter successfully registers and can vote a qualified absentee ballot.

#### Interfaces to External Systems

The LiveBallot system has been deployed in multiple U.S. jurisdictions using a wide variety of voter registration and vote tabulation systems. LiveBallot was designed to handle structured data exports (.txt, and .csv, .edx, and .xml) from the major election management and voter registration systems. In the LiveBallot account setup, the administrator simply selects the system used in the individual jurisdictions. The Data Import Tool then presents import steps specific to the system we identified. A simple mapping tool allows us to quickly and easily upload, import, and interact with the data to insure it is accurately imported into LiveBallot.

#### – Data Import/Export Interface

Our vendor team understands the wide range of election technologies in use today and encourages the standardization of election data. If, however, we require customization or have a unique data structure, a custom importer/exporter can be quickly created by implementing the LiveBallot Data Import/Export Interface. LiveBallot's modular structure allows them to deliver these types of customizations to localities without compromising the core foundation of the application.

#### – Customizable Ballot Packages

LiveBallot delivers a voter's ballot in a return package which includes either a pre-marked (with the voter's selections) or blank ballot along with relevant and required documents such as instructions, oath of voter, and return envelopes. Using the LiveBallot set-up tools, we have the option to fully customize the ballot return packages or to use the default documents provided by LiveBallot. Our own documents can be simply uploaded to the LiveBallot system and included in the package to be delivered to the voters. Customizable return packages enable us to meet federal, state, and local delivery requirements.

#### - Flexible Ballot Display and Print Capability

LiveBallot supports both standard US (8.5x11) and European (A4) sizes. Ballots printed using LiveBallot use standard computer printer paper sizes. Voters have the option to print a blank PDF ballot to be marked by hand or they may mark their selections online before printing. Ballots are downloaded to the voter's computer in a standard PDF format and are sized to print on any home printer.

#### – Ballot Tracker Module

UOCAVA voters may return to our LiveBallot website to monitor the status of their ballot. We have the ability to include multiple tracking dates and/or messages in our voter registration file. Ballot Tracker then displays voter specific tracking information from our voter registration file. Absentee ballot request, ballot access, and returned ballot dates are examples of some of the tracking data that we may choose to display to the voter.

#### - Accessibility Qualifications

The LiveBallot electronic balloting tool has been federally reviewed and approved by the U.S. Department of Health and Human Services and is Section 508 reviewed and approved. Additionally, LiveBallot has been evaluated and shown to have the highest levels of accessibility by the Center for Disabilities and American Council for the Blind. LiveBallot strives to meet Web Content Accessibility Guidelines (WCAG) 2.0 specifications where possible.

#### – Multilingual Support

LiveBallot's flexible layout engine allows for multi-lingual or single language ballot displays. Ballot data and on-screen instructions are managed by a translation system. Translations may be directly entered into LiveBallot or a translation file may be uploaded. If a translation file is not available, we can download a translation file from LiveBallot, enter translations, and then reupload the file.

#### – Reporting

LiveBallot tracks voter events to offer a number of valuable statistical reports. The LiveBallot dashboard allows a quick view of the number of visitors and other statistics for our jurisdiction. Examples of some of the reports provided by the LiveBallot system include:

- Election data proofing reports
- Number of visitors to our LiveBallot website
- Number of ballots downloaded
- Delivery method usage statistics
- Customized reports derived from LiveBallot data
- Ballot Delivery

LiveBallot offers selectable options for ballot delivery to our voters. This includes mail, fax and email ballot return packages that include all of our required documents.

#### – Auto-Duplication and Direct Tabulation Ready

We expect to see a significant increase in returned ballots from our UOCAVA voters due to this implementation. LiveBallot is compatible with an optional ballot-on-demand system which automates the manual ballot duplication. The LiveBallot auto-duplication package reduces duplication time by over 90%. Additionally, our vendor team has partnered with Unisyn and is working jointly on an auto tabulation system capable of directly scanning and tabulating ballots printed from LiveBallot.

#### - Protect our voter's privacy and information

Our vendor team understands that the security of voter information and election data is one of our most important concerns. The Microsoft solution protects the voter's privacy, as well as our election data, with its combined front and back end security. LiveBallot ensures the privacy of all data by providing protection both in transit and in storage.

LiveBallot protects voter data on the front end using highly secure SSL encryption, automatic expiration of a voter's session on the website, and limitations on the information stored in the voter's session. Voter information and election data uploaded to LiveBallot is safely stored on Microsoft's Azure platform and is protected by Microsoft's security standards. The Windows Azure platform offers the highest level of security and was designed with a focus on confidentiality, integrity, and availability of customer data. Microsoft employs some of the leading security and cryptographic experts in the field with subject matter expertise in online security.

LiveBallot is hosted domestically in the United States utilizing the scalability and security of Microsoft's Windows Azure platform. LiveBallot complies with federal and state elections laws and will continue to meet the laws of federal and state elections rules. With billions of transactions securely hosted and delivered, the Azure platform offers us the highest degree of confidence our data will be protected and available when needed.

#### - Help Desk and Support Statistics

The LiveBallot Support Team provides 24/7 support during elections and is available for assistance when needed. The Support Team maintains help desk statistics on call volume, resolution, and response time. Help desk reports are made available upon request.

#### 3. Schedule and Milestones

The phases of this project would consist of documenting our requirements to allow for the configuring of the LiveBallot system. During this phase, we will perform the following tasks that allow us to identify our business requirements as they pertain to electronic balloting:

Requirements Gathering

- Provide onsite workshops demonstration of the LiveBallot tools.
- Setup working group sessions to document our business and technical requirements.
- Identify election file import requirements.
- Identify onscreen instruction requirements.
- Identify user roles and associated permissions for the LiveBallot tools.
- Identify Return Ballot Packages and custom ballot package form requirements.
- Identify requirements for election set-up and county inheritance of statewide data, when applicable.

The Planning/Development phase consists of the following activities:

- Analyzing the results from requirements gathering and determining configuration needs.
- Configuring the tools to address election file import requirements.
- Developing onscreen instruction requirements based on individual jurisdiction requirements.
- Setting up user roles and associated permissions for LiveBallot based on identified requirements from each jurisdiction.
- Creating Return Ballot Packages and custom ballot package forms.
- Setting up the tool to support statewide elections set-up and county inheritance of statewide data (as appropriate).

The testing phase will consist of performing the following activities:

- Conducting a test pilot in the production environment using the LiveBallot tool.
- Conducting acceptance testing procedures to ensure that the requirements identified in the requirements phase are satisfied.
- Performing remediation configuration activities on the LiveBallot tool to address any issues/problems uncovered during the pilot test exercise.
- Developing a Test Report that documents Acceptance Test procedures and resulting using the pilot test users.

Project Phase / Milestone

- Initial Meetings
  - o Request for Information
  - Determine point of contact and escalation (roles/responsibilities)

- o Formalize Requirements
- o Sign-off of Requirements Documents
- Configuration (and Customization)
  - o Administration Configuration
  - o Setup jurisdiction contact information
  - o Core Configuration
  - o Online Ballot Instructions
  - o Ballot Package (Mail, Fax, Email) Completed
- Email Notification to Voter
  - o Discuss and verify email notification process
  - o Define our PIN Generation Process
  - o Discuss Email Reporting (what and when)
  - o Formalize notification workflow
- Discovery and Analysis (import data)
  - o Upload VR Data
  - o Upload and Import Election Data
  - o Analyze data for completeness
  - o Proof Election Data Mapping
- Internal Testing
  - o Verify election ballot data
  - o Verify ballot delivery settings
  - o Verify county page content and links
- Initial UAT
  - o Conduct UAT Prep Meeting
  - o Conduct Initial UAT Requirements and Functionality Walk-through
  - o Send UAT results and issue tracking XLS
  - o Get UAT results confirmation and acceptance
  - o Address initial UAT gaps
- Final UAT
  - o Schedule Final UAT Meeting
  - o Conduct Final UAT Requirements and Functionality Walk-through
  - o Send Final UAT results and issue tracking XLS
  - o Get Final UAT results confirmation and acceptance
- Exercise Support Process
- Conduct Final Walkthroughs and Data Validation
- Go-Live
- Execute Workflows (e.g. Notification)

#### 4. Reports

This grant will allow us to develop and deploy a wide range of detailed reports specific to our UOCAVA Enhancement Project. Previously we had neither the tools nor resources necessary to fully implement a UOCAVA reporting system. With this grant we expect to implement the following reporting capabilities:

- UOCAVA Enhancement Cost Tracker
  - o Tracks time spent preparing and deploying electronic ballots for our UOCAVA voters.
- UOCAVA One-time and Annual Payments to our selected vendor
- UOCAVA Enhancement Trend Analysis
  - o Measures the rate of improvement for each of the following metrics:
    - Voter Registration
    - Ballot Delivery
    - Ballot Return
    - Time Spent on the Site
    - Voter Access vs. Downloads
    - Voter Registration to Download Trends
    - Voter Access by Geography

All reports detailed here can be made available not less than quarterly—more often during periods of election activity if desired—to the Federal Voting Assistance Program, or any other interested party upon request.

# Management Approach

In the absence of leadership from the State, a collection of Florida counties—referred herein as Our Mission: Your Vote—decided to pursue this project with Democracy Live and Microsoft. As we are an informal consortium, Okaloosa County was selected to act on behalf of the other members as both grant applicant and grant administrator. The other counties represented here are: Baker, Bay, Bradford, Clay, Duval, Escambia, Leon, Nassau, Pinellas, Putnam, Sarasota and Wakulla. All grant monies received by Okaloosa for this project will be paid to the contractors on behalf of the above-listed counties.

Our management approach represents a proven development approach that provides for welldefined phases that take into account development of requirements, architectural design, detailed software design, software development, system testing, and managed release cycles.

Phases for the solution approach that are involved in this project are shown below:

- Envisioning: Envisioning involves creating a business vision and defining an approach to bring the vision to reality.
- Planning and Development: Planning continues through the development of functional requirements and a project plan for the project.
- Stabilization: Our team in cooperation with the vendor will test the solution and make modifications as needed.
- Deployment: The Deployment phase includes deployment of the solution and final testing.

Key Activities during the project will include the following:

- Kick-off and Vision and Scope meeting
- Define roles and responsibilities
- Outline key information needed to complete the project
- Confirm project approach
- Build and confirm project plan.

### Eight Criteria Areas

Our Mission: Your Vote endorses the eight criteria areas that are used to measure and evaluate this new UOCAVA program. Those areas are:

### Significance/Impact

This Grant Request has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas and metrics that we focus on are:

- Voter Registration
- Ballot Delivery
- Ballot Return

Historically, the biggest challenge for the UOCAVA voter population has been in "ballot return." LiveBallot will help meet the goal of eliminating the gap between domestic absentee voters and UOCAVA voters in all the key metrics, especially ballot return.

In addition, the FVAP grant will allow us to ensure that all voters, regardless of deployment within, or outside of the U.S. will always have a reliable method to register, access, and return their ballot. Our Mission: Your Vote has over 2,250,000 registered voters, nearly 50,000 of which are already identified as UOCAVA voters, and we are an increasingly mobile population with a growing rate of military personnel. There is no way of knowing when or which voter may be out of the country or mobilized. The system we are selecting must be capable of addressing the mobility needs of every voter in our voter registration system.

# Strategic goals

Our Mission: Your Vote considers the UOCAVA project a highly strategic opportunity to dramatically ease the process of balloting for overseas and military voters. In addition this project will secure the tools necessary to ensure any of the registered voters in the jurisdictions are able to easily update registration information and become an eligible UOCAVA voter, when necessary.

Key strategic goals for this project are as follows:

- Improve ballot access for UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials.
- Provide a solution that can be built upon in the future as legislative needs catch up with available and emerging technologies.
- Provide an overall long term cost-effective solution for our elections.
- Provide analytical information regarding the usage of the solution.

Our working hypothesis for this project states:

- Complete lifecycle Web-delivered UOCAVA voter services
  - o Reduce barriers to UOCAVA voter access
  - o Increase voter participation
  - Decrease errors that have the potential to disenfranchise.
- Comprehensive data collection
  - o Demonstrate effectiveness
  - o Enable comparison both over time, and between jurisdictions.
- Use of common data formats, particularly those emerging from IEEE standards
  - o Data mining of statistics from many jurisdictions.

In summary, our strategy is to offer our UOCAVA voters a one-stop, turn-key electronic ballot and registration tool that offers a dynamic and flexible platform that will reflect our current and future electronic ballot requirements. The end result will be significantly easier access to awareness, registration, online ballot marking, return, and tracking of the ballot for all eligible UOCAVA voters.

Long-term strategy may involve expanding the system to offer LiveBallot as a multi-platform, electronic ballot application that is available via Facebook, mobile phone, Google, Bing or any number of emerging platforms, beyond our website. The elections expertise of Democracy Live and resources of Microsoft offer capabilities to grow with our laws, and our imaginations.

# Sustainability

Our elections offices are understaffed and under-resourced. Accordingly, Our Mission: Your Vote has designed this project to meet the following criteria:

- Low long-term costs Our vendor's long term payment model offers an option where an individual jurisdiction only pays for what it uses. For example, beyond the grant years, our jurisdiction will only pay based on the number of ballots actually downloaded.
- Secure, cloud-based systems are proven to offer significantly lower server and hosting costs.
- To ensure long-term sustainability, the LiveBallot solution offers a suite of applications that can be deployed to ensure our UOCAVA voters are getting a broad-based level of use from a wide variety of features and tools.

# Innovation

Democracy Live has been an innovative pioneer in the voter information technology space having developed and deployed:

- ✓ Web-based, interactive accessible voter information guide.
- ✓ The first multimedia, interactive electronic ballot and sample ballot specific to each voter.
- ✓ The first comprehensive, multi-station, end-end mail ballot tracking system.

Microsoft Corporation has some of the world's leading innovators in areas of privacy, identity, data propagation, cross-platform utilization and security.

All of the above tools are integrated into our proposed MOVE Act solution and may be turned on at the discretion of participating counties and as state laws allow.

The combination of Democracy Live and Microsoft ensures that our team has the resources and capabilities to make sure we have constant adaption to the evolving market, and add innovative ideas to the system.

# Scalability

Scalability, security and stability are the key reasons LiveBallot is hosted in the Microsoft Azure cloud environment. With a proven 99.99% uptime and real time, multi-geographic server redundancy our voters can be assured their ballot will be available. Elections are a classic case for a cloud-based application. The LiveBallot server environment will automatically scale to meet the spikes and voter rush typically associated with elections. Using a cloud-based auto-scale environment our staff need not worry if we have enough server capacity. Microsoft Azure will ramp up automatically at no additional cost.

With tens of millions of monthly transactions, Azure is the second largest server network in the United States, second only to the U.S. Department of Defense. We are confident in the scalability of this system.

Additionally, the Our Mission: Your Vote consortium is made up of a diverse cross-section of Florida's sixty-seven counties. With small counties like Baker and Bradford, medium counties like Okaloosa and Escambia, and larger counties like Duval and Pinellas, this project will be a true vetting of the LiveBallot system's ability to adapt to a variety of environments.

### Collaboration

A key objective for Our Mission: Your Vote is to offer a seamless, integrated solution for each of the thirteen elections jurisdictions that comprise the Coalition. This informal coalition has the extended benefit of sharing innovative ideas and providing for cross-county communication on best practices and procedures while offering a similar balloting experience to each jurisdiction's UOCAVA voters.

Our program will serve UOCAVA voters associated with all five service branches—US Army Rangers and the 7<sup>th</sup> Special Forces Group; NAS Jacksonville and NAS Pensacola; Eglin AFB, MacDill AFB, Tyndall AFB, and Hurlburt Field; and Coast Guard Stations Clearwater and Destin. Together we serve a vast majority of Florida's military and their family members.

# Cost Benefit

Our Mission: Your Vote has over 2,250,000 registered voters. The award of this FVAP grant will enable participating counties to deploy a comprehensive, automated MOVE Act and UOCAVA services tool for years to come. A truly comprehensive MOVE Act and UOCAVA solution must be able to touch each of our registered voters, since any one of them may become UOCAVA eligible at any time.

We expect to offer the LiveBallot system to every UOCAVA voter for every election. We believe that a Uniformed or other eligible voter should have equal access to the ballot, regardless of the size of the election. Therefore, we expect to use this solution not just for primary and general elections, but also for municipal and special elections.

We estimate a minimum of 975 hours of manual staff time to successfully comply with the MOVE Act and UOCAVA assistance per election at a rate of \$50 per hour. This total equates to a 4 year total of \$585,000 (At three elections per year). Processing and mailing ballots individually is an additional 4-year cost of nearly \$195,000 per year.

Without this grant, the County Coalition expects a total UOCAVA and MOVE Act compliance cost of nearly \$936,000 over a four year period. As noted in the table below, this grant will enable us to deploy a perpetual system with manageable annual fees that will dramatically lower the coalition's twelve year costs by over \$1,300,000 (see Table, next page).

The deployment of the LiveBallot solution will eliminate the need for elections staff to manually register a UOCAVA voter application, and send a paper or email ballot. LiveBallot reduces staff time substantially, while fully complying with all the provisions of the MOVE Act.

Using the one-stop LiveBallot application, UOCAVA voters may update registration information online, access and mark their ballot, print or fax all the required materials, and track their ballot. Staff need only add the voter into their VR system, and send the email notification to the

	Number of Work Hours Per Year	Cost to State and Localities – 4 Years	Cost to State and Localities – 8 Years	Cost to State and Localities – 12 Years	FVAP Project Cost	12 Year <u>Savings</u>
MOVE ACT Compliance	2,925	\$585,000	\$1,117,000	\$1,755,000		
UOCAVA Registration	780	\$156,000	\$312,000	\$468,000		
Materials – Server, Equipment, paper and postage		\$195,000	\$390,000	\$585,000		
Total	3,705	\$936,000	\$1,819,000	\$2,808,000	\$1,639,878	\$1,168,122*

\* Not including \$1.00 per ballot download fee beginning 2017

UOCAVA voters of ballot availability. We anticipate a significant impact on our staffing and resources, saving over 60% of time while still fully complying with the MOVE Act.

The optional LiveBallot Auto-duplication solution is designed to reduce manual ballot duplication time by over 90%. This can be a substantial cost savings as the gap between UOCAVA and domestic voters is narrowed.

# Analysis and measurement of current processes

We agree with the authors of the MOVE Act that due to logistical, geographical, operational and environmental barriers, military and overseas voters are burdened by many obstacles that impact both the voter registration process and, most importantly, their right to vote. Most critical are problems transmitting balloting materials and not allowing enough time for ballot delivery.

As the MOVE Act underscores, county jurisdictions clearly play a critical role in addressing these problems and providing appropriate voting solutions, such as LiveBallot.

Our Mission: Your Vote's UOCAVA voter population has expanded over the last decade, due in part to increases in the number of military personnel deployed overseas. We estimate nearly three quarters of our UOCAVA personnel are affiliated with the armed services. In order to serve this growing constituency, we traditionally have deployed a variety of tools to ensure timely access to the ballot. These measures include links to the FPCA and the Federal Write-in Absentee Ballot (FWAB) on our elections home page. Additionally, we mail and email ballots to eligible UOCAVA voters.

While the spirit of the law is a welcome improvement, we are now faced with the challenge of meeting the MOVE Act requirements while working with an overburdened election team during the critical days of an election. The MOVE Act law requires electronic ballot delivery 45 days prior to a federal election; this requires staff to spend precious election time ensuring full compliance with the law.

Our elections administrators have determined that we have narrowed the gap between our domestic and UOCAVA population in areas of voter registration and voter participation. However, we still have a significant gap in ballots returned in time to be tabulated. Our key success metric is to improve the process of successfully transmitting and receiving (*return rate*) the ballot in time to be accepted and counted.

Our current procedure is a labor-intensive process that has been magnified due to the MOVE Act requirements. This grant funding will allow us to acquire new technologies to automate our registration, transmittal and the processing of UOCAVA ballots for our voters, thus significantly increasing our ballot return rate for our military and overseas voters.

# Identification of each process and the elements that are related to the process

Our UOCAVA voter population has expanded over the last decade. In order to serve this growing constituency, our current process is as follows:

- Voters apply to vote as a UOCAVA voter using the Federal Post Card Application.
- Once registered and in the system, we mail and or email a physical ballot to the voter. Over the past few years we have emailed a ballot and the requisite balloting information to those voters on file with a valid email address.
- Our goal has been to send our registered UOCAVA voters a ballot at least 45 days in advance of an election.
- The ballot is returned by the voter, along with the signed affidavit attesting to their validity as a registered, eligible voter.
- Faxed and printed e-mail ballots are typically duplicated, or re-made onto a ballot card that must be machine-tabulated.
- Eligible ballots are processed and submitted for tabulation.

# Identification of potential risks and mitigating strategies

We believe the rewards of implementing an automated, fully compliant MOVE Act solution that has been used and tested in hundreds of localities around the country greatly outweigh the risks associated with deploying new technology. However, any successful project must understand that there are risks associated with initial deployments. These risks entail:

- Newer technology in the early part of the life cycle
- Lack of voter awareness of new electronic balloting tools

In order to mitigate the above listed risks we plan to deploy the following risk mitigation strategies:

- We will conduct a test pilot in the production environment using the new technologies.
- We will conduct acceptance testing procedures to ensure that the requirements identified in the Envisioning Phase are satisfied.
- Perform remediation configuration activities on the LiveBallot electronic ballot tool to address any issues/problems uncovered during the pilot test exercise.
- We will develop a Test Report that documents Acceptance Test procedures and results using the pilot test users.
- Revise and refine our back end processes to handle the expected increase in UOCAVA ballots.
- Promote an aggressive PR campaign to raise UOCAVA voter awareness of the new online tools.

The deployment phase will consist of the following activities:

- Execute operational test procedures to ensure the technology is functioning properly.
- Provide our team access to the tool to allow execution of administrative procedures and to run reports.
- Provide operational support during an election to ensure the electronic ballot solution is made available to our voters.

The following general procedures will be used to manage project issues and risks:

- Identify and document
- Assess impact and prioritize
- Assign responsibility
- Monitor and report progress
- Communicate issue resolution

A mutually agreed upon issue escalation process will be defined at the outset of the project.

### Formalization of performance indicators for each process

It is critical for us to be able to manage and compile reports for each of our key performance metrics. These metrics include a wide array of measurables, including detailed statistical reports on the voter registration, balloting activity and cost tracking. LiveBallot tracks voter events to offer statistical reports for each jurisdiction. The LiveBallot dashboard allows a quick view of the number of visitors and other statistics for each jurisdiction.

### Justification for the modification to the existing processes

Our current UOCAVA process is a labor-intensive, manual environment in which our elections staff must spend a disproportionate amount of time. We believe that every eligible voter should have equal access to the ballot. Therefore, regardless of the time it takes, our staff will ensure that all ballots get delivered and processed. Our key objective is to narrow the gap between domestic ballot return and UOCAVA ballot return. By automating the process with the

LiveBallot system, our UOCAVA voters will be able to update registration information, access and mark their ballot, and track the status of their ballot, on-demand and online. In addition, automating the MOVE Act compliance requirements will free up our staff to do other necessary elections critical activities that relate to all our voters, both domestic and abroad.

We are confident that an automated, Web hosted solution will greatly narrow the gap between UOCAVA and domestic voters, while reducing the costs associated with such a manual process. By deploying the LiveBallot system we can offer voter registration, ballot access and ballot return at nearly a 60% quicker rate than our tradition manual process. As a result of LiveBallot, we expect that a least 50% less man-hours will be spent on UOCAVA related voter registration, ballot delivery, ballot processing and ballot duplication.

The LiveBallot system will be available to every eligible voter around the world, on-demand, without relying on any one individual to mail or email a ballot package. Every laptop or computer with a browser will become an electronic balloting tool, delivering the correct ballot to the correct voter, no matter where in the world they live, regardless of physical disabilities.

Finally, our selected system has been reviewed and approved for the highest level of accessibility for disabled voters by the University of Washington Center on Disabilities Council for the Blind. Using the LiveBallot system, every eligible UOCAVA voter, from Waziristan to Walter Reed will have access to their ballot, where and when they want it.

# Measurements of performance

Our objective is to continually assess, measure, and track our improvement relating to our UOCAVA population. The technology we have chosen offers an array of reporting tools to ensure we are able to performance measure what we are managing. The reporting tools include, but are not limited to:

- Number of voters requesting a ballot
- Number of visitors viewing a ballot
- Number of ballots downloaded
- Delivery method requested/downloaded
- Ballot sent to ballot received ratio
- Ballot sent to ballot downloaded ratio
- Locality and Region of voter activity
- UOCAVA Enhancement Cost Tracker
- UOCAVA Enhancement Trend Analysis

An annual final report will summarize the entirety of the data and financial reports. This is the report that is to be made available to FVAP by the 15<sup>th</sup> of February for each of the grant-supported years, but at least through 2016.

# 1. Current and Pending Project Proposal Submissions

We currently have no current or pending projects that overlap with this initiative. We have been in strategy discussions about the various balloting tools that are available to assist not only our UOCAVA voters, but also ways to assist our disabled population. However, we have no current or pending program or proposal developed or planned at this time.

# 2. Qualifications

Democracy Live, Inc., our technology and solution provider is a pioneer in the emerging voter information technology industry. With decades of elections experience, Democracy Live has successfully deployed innovative voting assistance products to empower voters and has met the requirements of the MOVE Act. The Democracy Live system has been used in over 200 U.S. elections, delivering ballots to thousands of voters in over 60 countries.

Microsoft Corporation is the worldwide leader in software, services, and solutions that help people and businesses realize their full potential. Microsoft has been supporting the Department of Defense, Microsoft's largest customer in the world, for more than 30 years. Microsoft has been providing on-line services to hundreds of millions of users for more than 15 years.

Specifically, Microsoft Corporation has extensive experience developing the Washington State Statewide database and working on the New York State Voter Registration project. Microsoft was the Prime contractor for the 2010 FVAP Project, using Democracy Live technology. Microsoft's largest customer is the U.S. Department of Defense, the sponsor of the FVAP funding.

# Volume II

# **Budget Proposal**

Through the use of the requested FVAP grants funds the Florida coalition of counties (known hereafter as Our Mission: Your Vote or the consortium) will be able to purchase and implement a comprehensive, automated UOCAVA Voter Services and eBalloting system. As noted in the Cost Benefit of the Management Approach Section of this Proposal, the deployment of the LiveBallot UOCAVA system will lower long term costs while significantly increasing services to our UOCAVA voter population.

As noted previously in this Proposal, we project that by fully deploying this new technology, we will dramatically streamline and speed the balloting process for our UOCAVA voting population, as well as the save significant staff time complying with the new mandates of the MOVE Act. The funding of this grant will allow us to meet the following goals by 2016:

- We anticipate our ballot return rate will improve by well over 50% with the goal of eventually eliminating the ballot return gap between UOCAVA and domestic voters.
- We anticipate UOCAVA voter registration will increase by over 35%.
- We anticipate that our UOCAVA voter participation rate will increase by over 35%.
- We anticipate the percent of ballots delivered to ballots received will climb by over 40%.
- We anticipate voter confirmation (ballot tracking) will climb by over 75%.
- We anticipate that our UOCAVA statistical reporting metrics and data aggregation tools will dramatically improve, thus enhancing our overall data metric reporting by over 75%.
- We anticipate that our staff time complying with the MOVE Act requirements will fall by over 60%.

Ballot return rates are estimated to be similar to the national ballot return rates listed below: Absentee Ballot Return Rates:

- 91%= General Population
- 67%= UOCAVA voters

The key metric for this consortium is to improve the ballot return rate for UOCAVA voters by at least 50% over the next election cycle, and moving towards future goal of a zero gap between UOCAVA voters and domestic voters by 2016.

In addition to the tangible, "dollar certain" return on investment analysis detailed above, we believe that the proposed project will provide substantial intangible return on investment that should be taken into account into determining the justification for this project, to include:

- Valuable lessons learned and experience applicable to future voting technology initiatives for UOCAVA voters;
- Improved voter awareness of the availability of voter assistance programs; and,
- Improved voter satisfaction with the voting process.

# 1. Itemized Budget:

The itemized budget will contain a detailed list of the following:

# a) Direct Labor:

We do not expect to incur an additional labor costs associated with this project.

# b) Administrative and clerical labor:

We do not expect to incur any additional administrative or clerical labor costs beyond what we already have budgeted to assist UOCAVA voters and administrate the MOVE ACT.

# c) Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):

We do not expect to incur any additional fringe benefits and other overhead costs.

# d) Travel:

We do not anticipate any additional travel related expenses for this project.

### e) Subcontracts/sub awards:

The pricing for licensing and annual support per county for the consortium is attached to this document.

### f) Consultants:

We do not intend to use nor request funds for any outside consultants for this project.

# g) Materials and Supplies:

Item Description	Years	Pricing (estimated)
LiveBallot Includes: One-Time set-up fee & license Hosting and deployment, 25 hours on-site training and Project Management, Subscription and Support (including version upgrades)	2012 – 2016	See table in supporting documentation below
Post Grant Period: 2017 and beyond Subscription and Support - Includes all version upgrades		\$1.00 per downloaded ballot
Ballot on Demand Solutions for Auto-Duplication         Includes: License fees; printer; scanner; per-copy costs (if any);         ballot card stock; toner, ink, or photoconductor units (if needed)         Depending on existing equipment, not all jurisdictions have the same needs. All figures based on use in Federal elections only.	2012 – 2016	See detailed table in supporting documentation below
Voter Registration Integration Includes: One-Time development fee	2012 – 2016	See detailed table in supporting documentation below

# h) Other Direct Costs:

Reaching out to nearly 50,000 known UOCAVA voters across 13 Florida counties and the globe will require an aggressive plan to reach them—both here at home and abroad. Use of traditional print media and newer social and web-based media will be essential. The associated costs are listed below. More detail is provided in the attached Program Campaign Plan.

Print Media	
Print Ads- Base/Military Publications	\$10,000.00
Direct Mail Piece (Printing and Mail Fulfillment)	\$8,000.00
Tri-Fold Brochure	\$5,500.00
Flyers	\$2,500.00
Posters	\$3,500.00
Print Costs Total	\$29,500.00
Electronic Media Web Banner (Design & Ad Placement)	\$6,500.00
Web Video (Shoot, Production & Edit)	\$5,000.00
Still Photography Shoot	\$3,000.00
Electronic Costs Total	\$14,500.00
Branding	
Logo & Branding Development	\$750.00
Branding Costs Total	\$750.00
ESTIMATED TOTAL	\$44,750.00

# **Detailed Reference Tables**

# Itemized Budget Subsection (e) - Contractor, Subcontractor Awards

# LiveBallot UOCAVA eBalloting System

(as described in detail in the *Technical Approach and Justification*)

# One Time Fee (to include Licensing and Annual Support) per County through 2016:

Consortium County	Four (4) Year Licensing Fee*
Baker	\$ 35,000
Bay	75,000
Bradford	35,000
Clay	75,000
Duval	200,000
Escambia	150,000
Leon	150,000
Nassaua	75,000
Okaloosa	75,000
Pinellas	200,000
Putnam	35,000
Sarasota	150,000
Wakulla	35,000
CONSORTIUM TOTAL	\$1,290,000

\*Includes training, election set-up and support

# Itemized Budget Subsection (g) - Materials and Supplies

# Ballot on Demand Systems for Auto-duplication of Voted Ballots

(as described in detail in the Technical Approach and Justification)

Ru	inbeck Services
Baker*	\$26,840
Bradford**	\$11,180
Leon**	\$17,900
Pinellas**	\$30,500
Putnam**	\$12,860
Wakulla*	\$27,540
	ES&S <sup>§</sup>
Вау	\$14,532
Clay	\$16,800
Escambia	\$25,560
Nassau	\$14,316
	ABPS <sup>6</sup>
Duval	\$34,500
Okaloosa	\$22,250
Sarasota	\$15,350
CONSORTIUM TOTAL	\$270,128

\* indicates counties with new installation

\*\* indicates counties with existing technology but includes scanner and per ballot costs § includes development costs, licenses fees, scanner, and printing supplies (cardstock, toner) δ includes development costs, scanner, and printer supplies (toner, PCU, cardstock)

### Itemized Budget Subsection (g) - Materials and Supplies

#### **Voter Registration System Integration**

(as described in detail in the Technical Approach and Justification)

Information provided to the voter on absentee request status, ballot availability, and verification of voted absentee receipt is essential information. To accomplish this, each jurisdiction's VR system will need to communicate with the LiveBallot system. Some form of interface may need to be developed as a necessary part of the information transfer. The pricing below reflects phone conversations with the VR system vendors associated with the consortium.

VR Systems, Inc.		
Baker	\$2,500	
Bay	\$2,500	
Bradford	\$2,500	
Clay	\$2,500	
Duval	\$2,500	
Escambia	\$2,500	
Leon	\$2,500	
Nassaua	\$2,500	
Okaloosa	\$2,500	
Pinellas	\$2,500	
Putnam	\$2,500	
Wakulla	\$2,500	
ES&S/LogicWorks		
Sarasota	\$5,000	
CONSORTIUM TOTAL	\$35,000	

OVERALL CONSORTIUM	£1 420 979
TOTAL BUDGET	\$1,639,878



# Florida Multi-County Absentee Ballot Delivery Project

*"Our Mission: Your Vote"* Voter Outreach/Public Awareness Campaign Plan

> *Version 3.0* July 8, 2011

# *"Our Mission: Your Vote"* Voter Outreach/Public Awareness Campaign Plan

# Objective

-To increase awareness among UOCAVA voters of the availability to vote using an online ballot delivery system designed to expedite the absentee voting process.

-To maximize the impact the of *Our Mission: Your Vote* project and inform potential UOCAVA voters of the availability of these new voter services, consortium members will conduct the following voter outreach campaign.

Key Campaign Messages

-Absent members of the US military and civilians located overseas have the opportunity to vote using an online ballot delivery system.

- The development of the online ballot delivery system is one of many steps being taken by *Our Mission: Your Vote* to increase voter confidence and ease voter concerns in the absentee process.

-The new online system cuts delivery time in half because voters can now have access to their ballot shortly after a request is validated.

# Target Market

The targeted demographic is absent uniformed and overseas citizens registered to vote in participating Florida counties.

Participating counties include many of those with military installations in near proximity. The following counties are participating: Baker, Bay, Bradford, Clay, Duval, Escambia, Leon, Nassau, Okaloosa, Pinellas, Sarasota, Putnam and Wakulla.

The following military installations are targeted to receive communication:

"Our Mission: Your Vote" Voter Outreach/Public Awareness Campaign Plan page 2

# **Army Bases**

Camp Blanding Camp Rudder 7<sup>th</sup> Army Special Forces

### **Marine Bases**

Blount Island Command

# Navy Bases

NAS Jacksonville NAS Pensacola NAS Whiting Field Naval Hospital Jacksonville Naval Hospital Pensacola NS Mayport NSA Panama City Training Center Corry

### **Air Force Bases**

Eglin AFB Hurlburt Field MacDill AFB Tyndall AFB

Duke Field

### **Coast Guard Bases**

Air Station Clearwater Destin Coast Guard Station

**US** Central Command

Campaign Tactics

The following tactics will be used to effectively communicate the stated objective:

Print Media

Publication Advertisements

-Eglin Flyer – Eglin AFB

-Hurlburt Patriot - Hurlburt Field

-The Gulf Defender – Tyndall AFB

- The Thunderbolt - MacDill AFB

- Stars and Stripes - Military wide

-The Red Seven - Duke Field/7th Special Forces Group

-Coast Guard Magazine

-The Gosport - NAS Pensacola

-JAX Air News- NAS Jacksonville

-The Mirror- NS Mayport

-Coastal Courier- NAS Panama City

Direct Mail to UOCAVA voters

- Self-Mailing Postcard

Tri-Fold Brochure

-Inclusion in Base welcome packages

-Dissemination by Voting Assistance and Recruitment Officers

-US State Department distribution to US citizens living aboard

Public Awareness Flyers & Posters

High Resolution Still Photography of Voting System

Electronic Media

Social Network Sites (Facebook, Twitter & Weblogs)

Web banners/ web links on military support sites

Email distribution

Viral Web video

Public Relations/Promotions

Outreach at military and community events

Press releases to consortium members' local media markets

Branding

Logo/Brand Development

# Budget

Print Media	
Print Ads- Base/Military Publications	\$10,000.00
Direct Mail Piece (Printing and Mail Fulfillment)	\$8,000.00
Tri-Fold Brochure	\$5,500.00
Flyers	\$2,500.00
Posters	\$3,500.00
Print Costs Total	\$29,500.00

Electronic Media	
Web Banner (Design & Ad Placement)	\$6,500.00
Web Video (Shoot, Production & Edit)	\$5,000.00
Still Photography Shoot	\$3,000.00
Electronic Costs Total	\$14,500.00

Branding	
Logo & Branding Development	\$750.00
Branding Costs Total	\$750.00

ESTIMATED TOTAL

\$44,750.00

"Our Mission: Your Vote" Voter Outreach/Public Awareness Campaign Plan page 5

Okaloosa County, Florida



# Response to

# Defense Human Resources Activity Federal Voting Assistance Program (FVAP)

TECHNICAL PROPOSAL Catalog of Federal Domestic Assistance Number: 12.217 BAA number: H98210-BAA-11-0001 Okaloosa County UOCAVA Voter Web Portal Project CAGE Code:<sup>(b)(4)</sup> DUNS Number:<sup>(b)(4)</sup>

Applicant:Okaloosa Countycontracting with Overseas Vote Foundation (OVF)

Technical contact:

Paul Lux

302 Wilson St. N, Suite 102 Crestview, FL 32536 Ph:(850) 689-5600 Fax:(850) 689-5644 plux@co.okaloosa.fl.us

Administrative/business contact:

Same as Technical Contact

Proposed period of performance: January 2012 - December 2012

Submitted July 13, 2011

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# Volume II

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# 1. (iii) TECHNICAL APPROACH AND JUSTIFICATION

### 1) Executive Summary

**Okaloosa County, Florida** with a population of about 180,000 is the home of Eglin Air Force Base, the largest air base in the world. Local military bases represent all 5 service branches and support more than 60,000 military, civil service and military dependents. The region is technology, aviation, engineering and military oriented.

There are currently about 7,000 registered UOCAVA voters in Okaloosa County, a majority of which are overseas military voters. In view of the large number of military personnel, together with the related civilian employees and dependents currently deployed overseas, we believe there is a potential to significantly increase the active and registered UOCAVA voter base. This will be achieved through the implementation of online voting tools available on our own Okaloosa County website, which will be tailored to meet the needs of our particular mix of military and civilian UOCAVA voters.

Our proposal addresses to Okaloosa County's desire to implement "online voter registration and absentee ballot application capabilities" through a customized UOCAVA voter services website (portal) adapted to our needs and upgraded in all aspects of the UOCAVA voting process from registration through balloting and ballot tracking. Our goal is to grow registrations and ballot requests by about 60% over the next few election cycles.

Presently, Okaloosa County offers a link to the Florida form to accommodate registration and communications with UOCAVA voters. This approach is not conducive to growth of the voter base, nor does it provide visibility into the voting process as experienced by the UOCAVA voter specifically. Furthermore because we are not serving the voter through our own website, it limits our capability to monitor and record the end-to-end process from address updates and ballot requests through to having the ballots counted. Our goal is to move to a seamless online service for the various stages of the voting process, to interact with the voter when needed and at the same time to be able to monitor the completion of the voting stages.

The strategic technical approach will address the following:

- 1) Voter-Facing Aspect: online voter registration and ballot request services, FWAB services, election information services, and help desk services
- 2) Data Transfer Activity: the essential voter registration and ballot request data gathered from the voters will be transferred to either the Voter Registration Database or an electronic blank ballot delivery and monitoring system
- 3) Data Acquisition and Tracking Aspect: both the voter-facing and election administration improvements will be largely online and offer inherent statistical tracking capabilities, such as Google Analytics reporting facilities, providing data on the usage of the tools and services by the voters

We believe that our decision to implement a complete, integrated system that brings together the voter-facing aspects together with the balloting administration is best achieved by working with two complementary system providers. This particular grant application focuses on the voter-facing aspect of the solution, where we will work with Overseas Vote Foundation (OVF).

# 2) Goals / Objectives

The primary goal of this project is to deploy online UOCAVA voter services, which are expected to immediately grow registration numbers of Okaloosa UOCAVA voters. Thus we will move to a seamless online service for the various stages of the voting process, while at the same time monitoring the completion of each stage. *[Factor 3- Impact]* Our objective is to develop, deploy, test and evaluate an electronic voter system and demonstrate that sustainable and affordable electronic tools can be successfully realized in jurisdictions with a military component such as Okaloosa County. *[Factor 6 – Scalability]* 

Through collected data we will be able to evaluate the impact of technology on voter registration, voter participation, and ballot return rates. We will evaluate our hypothesis that is it possible to exploit the potential to significantly increase the active UOCAVA voter base through the availability of online voting tools which meet local voters' and election officials' needs. We aim to demonstrate a 60 % increase in voter registration compared to the 2008 elections in our county, an increase in the number of ballots successfully returned by UOCAVA voters. *[Factors 1 and 3 - Significance and Impact]* 

We intend to establish a long-term data collection system, which will create benchmark data (such as technical and financial viability data, as well as voter success rates). Such data will be obtained for the 2012 Florida primaries as well as the 2012 General Elections. For the future, such data can be compared to other jurisdictions of similar size and voter composition.

The implementation of this system on the county level will allow an important comparison, namely success rates across counties. Such comparisons can better account for additional variables that can impact success, such as whether or not the election takes place during a Presidential election year, whether state elections take place or on a state's participatory structure. *[Factor 6 and 7– Scalability and Collaborative]* Time series data provide a better indication of long-term cost-efficiency and sustainability of the installed solution, thereby providing a broader impact of the results obtained for Okaloosa County. *[Factor 3 - Impact]* 

Finally, the systems employed will be technically and economically designed and deployed to continue their service to our county and our voters for many election years to come. *[Factor 2-Sustainability]* 

# 3) Description of Technical Approach

# Functionalities and Services

Overseas Vote Foundation (OVF), a non-profit organization, will work with us as a subcontractor to customize a front-end system for Okaloosa's UOCAVA voters. OVF is the leader in voter-facing system innovations and in proving that complicated UOCAVA voter processes can be simplified and streamlined. Their proven research ability and data expertise assures us that they are the ideal innovation provider for this project.

We are confident in OVF's dedication to join with us in developing a truly sustainable and scalable solution that meets Okaloosa County's particular requirements. They are an organization committed to a cause that aligns precisely with our project goals. To sustain the

project, we must be able to afford it. The initial costs are in the customization and specific development for our county, which should be covered by the grant. Licensing costs in subsequent years will be self-sustainable.

In regards to ongoing data acquisition, our plans support the generation of agreed-upon reports at regular intervals for the FVAP over the period of operation funded by this grant, and beyond. The technical approach to achieve the above goals and objectives involves a combination of adapting existing OVF software applications to the requirements of a military-oriented jurisdiction, here Okaloosa County, and integration with our existing systems for voter record management, election administration, and absentee voter ballot tracking. The applications to be adapted or to be newly developed include:

# A. Registration and Absentee Voter Application (RAVA)

This is the principal and most strategic application in the proposed suite of UOCAVA voter services. OVF's RAVA is equivalent to what FVAP might refer to as an "**FPCA Wizard** with Forms and Instructions." RAVA represents a transformation from the historically cumbersome and error-laden methods for manually registering overseas and military voters to a refined, well designed, easy-to-use, and voter-oriented online, automated process. **[Factor 1 – Significance]** 

Okaloosa County adaptations, special requirements and instructions will be programmed into the RAVA wizard "flow" to enable voters to register and request their ballots easily and accurately without VAO assistance, reference books, or training of any kind.

Augmenting the effectiveness of the Okaloosa County voter registration/ballot request process will be achieved almost immediately. Our voters and election administrators will simultaneously benefit because RAVA expedites and simplifies the procedures and dramatically reduces errors in the voter registration and ballot request process. *[Factor 3- Impact]* 

RAVA produces the official FPCA form, an Addendum form, and a customized instruction letter, which pulls in the relevant mailing address and contact information for our jurisdiction. Every step of the process has been conceived to minimize voter failure in the process. Voters "fall out of the system" when an individual creates a registration/ballot request online, but fails to print, sign and/or mail in their form to their LEO as required.

Bar Code technology will be implemented in order to facilitate the data-entry/matching when signed original forms arrive. These can be reconciled with the online records.

# B. "Vote-Print-Mail" (VPM) FWAB - Federal Write-in Absentee Ballot Wizard

We propose to utilize an Okaloosa County customized "Vote-Print-Mail" (VPM) FWAB. The OVF VPM FWAB system meets the 2012 MOVE requirements, today. It is also a "Wizard" system, built on the same engine as RAVA. It integrates a "zip-to-district" matching with the voter's address and then pulls in the voter's federal-level candidate lists from VoteSmart.org. Voters enter their U.S. address and the system presents them with federal candidate lists by office so they can point, click, vote, and print their ballots.

Additional development will also be done to integrate state and local races into the VPM FWAB wizard to accommodate recent changes to Florida law that now allow voters using FWABs to also vote all candidate races in which they are eligible.

The system output provides complete instructions for returning the ballot with the precise mailing address, signature and special requirements and a completed fax page populated with the contact data for their election office. All output shall be customized to meet the Okaloosa County specifications.

Bar Code technology will be implemented in order to facilitate the data-entry/matching when signed original forms arrive. These can be reconciled with the online records.

Data Components for A and B above: Both RAVA and the VPM FWAB allow us to harness the voter's time and willingness to input their data in exchange for the service of providing them a completed form. The complete voter data record can be extracted from our database and used in reporting. We will gain a complete demographic view of our voters including, military or civilian, age, gender, country of residence, voting history, etc. Tracking voter demographics is essential as these factors may act as intervening variables, which impact an individual's success during the voting process. That is, the successful use of technology can be influenced by the individual's age and education level. [Factor 2 - Sustainable]

# C. My Voter Account (MVA) $\rightarrow$ Database $\rightarrow$ Online Voter Registration

OVF's MVA harnesses the work of the voter in entering his/her own voter registration data. The MVA application allows the voter to stop and/or save their information in a Voter Account at any step in the RAVA process for future use, for example, to generate another FPCA download, or to bring their data into the VPM FWAB application. This will save our voters considerable time and help them manage the new MOVE requirement to file a new FPCA for each Election Year. *[Factors 1 and 3 – Significance and Impact]* 

A new innovation is to create a "pending" location for the MVA data, so that there is time for election official review before it is approved and posted to a further location. *[Factor 4 - Innovation]* We propose to take voter records, as they are created online with the voter registration wizard and move them into a central "pending" location that can be accessed by the local jurisdiction. When the voter's signed original form is received, the voter record will be marked online as reconciled/authenticated. We can also alert voters if they have not successfully finished the process. For example, a list of voters whose records are more than three weeks old but still not reconciled will be generated and action will be taken to alert them to their fact their form was not received We plan to implement this additional feature, which is important for our own visibility into how voters are using the tools.

*Data Component*: MVA is the core of the online voter information database, which can be used in our own, as well as the FVAP's research and analysis. Furthermore, the voter data records can be transferred to other systems within Okaloosa County and moved forward into a chosen balloting system. *[Factors 2 and 7 – Sustainable and Collaborative]* 

Tremendous new insight will be gained from this innovative "pending" file capture system, and for the first time provide a more accurate measure of the number of individuals who "fall out" during the first stage of voting.

We define failure rate as the number of individuals who create a form but either do not print and return the form, as well as those whose forms are rejected. Furthermore, we can track those variables that contribute to the lack of follow-through (i.e. voter history, type of voter) for further research and analysis. *[Factors 2 and 7 – Sustainable and Collaborative]* 

# D. Additional Supporting Applications and Voter Information Services [Factor 4 - Innovation]

Providing just voter registration and emergency balloting is often not enough to get the voter to take immediate action. We believe it is equally important to provide supporting services with the essential information that voters need in order to make their decision to register to vote. *[Factors 1 and 3 – Significance and Impact]* 

Such services include a Voter Help Desk (VHD), an Election Official Directory (EOD), a Voter Information Directory (VID), and a Candidate Finder (CF). It is these services that answer most voter questions from the outset without personalized assistance. They will enable the county to service a growing number of voters, **[Factor 6 - Scalability]** and we will be able to effectively track their usage through Google Analytics to see how it compares with RAVA and FWAB usage. This data will also be reported to the FVAP. **[Factor 2 - Sustainable]** 

# i) Voter Help Desk (VHD)

The VHD is a full-service standalone application, which OVF will customize for our county's user interface. It allows for the creation and maintenance of an extensive FAQ library of published and unpublished articles. *[Factors 1 and 3 – Significance and Impact]* 

Okaloosa County will take charge of its VHD content and management, customizing the FAQ Knowledgebase and responding personally to submitted voter questions through the online Ticket System. *[Factor 3- Impact]* 

<u>Data Aspects</u>: The reporting aspects of the VHD will provide tremendous insight to the most common voter questions, which can serve as valuable comparatives with other counties. The number of "views" of each FAQ is tracked. Reports will reveal specific areas where voters lack knowledge and seek more information in the UOCAVA voting process. *.[Factor 4 - Strategic Approach]* 

# ii) OVF Election Official Directory (EOD)

In its essence, this is the complete contact data information page for the county, which will display the following. Both the RAVA and FWAB instructions to accompany the FPCA and FWAB downloads rely on the content of the EOD in order to provide accurate mailing and contact information to the voter. **[Factors 1 and 3 – Significance and Impact]** 

# iii) Voter Information Directory (VID)

The VID is designed to clearly present election dates and the ever-changing sets of registration form filing dates associated with each election, ballot arrival dates and possibilities for sending forms and ballots to one's election office. **[Factors 1 and 3 – Significance and Impact]** This information is a subset of what is available for viewing through the EOD. The VID will present the Okaloosa County election dates and deadlines charts, and voter materials transmission options charts for military and civilian voters.

# iv) Candidate Finder (CF)

The CF allows voters to enter their address and click to display a nonpartisan federal candidates list. For UOCAVA voters, this saves them time and effort searching for this essential information. CF does a zip to district match and then accesses the candidate data

from the Vote-Smart.org website which offers an API for this purpose. Also, data integration will be developed to expand the candidate finder to include state and local candidate races as well. *[Factors 1,2, 3 – Significance, Sustainable, Impact]* 

# 4. System Innovations [Factor 4 - Innovation]

# A. Mobile Voter Registration Application:

Purpose: Increase Outreach and Access to Voter Registration to Build Participation

Enabling increased access to the Okaloosa RAVA voter registration/ballot request tool by running it on additional platforms is a strategy to build participation. We will approach the world of mobile, smart phone users by offering these mobile platform users the thing they want the most: an "app." *[Factors 1, 3, 5 – Significance, Impact, Innovation]* 

We propose a specific optimization of the voter registration/ballot request wizard for the Android and/or iPhone interfaces with a remote print feature. We will promote this app as a strategic outreach action to military and young voters.

<u>Data Aspects</u>: The data gathered by the voter registration mobile app will be combined with all voter registration data that the system collects. Reports regarding voter profiles, demographics, voting history, country of residence, and other valuable data will be collected. This data will provide valuable insight into the profile of app users, which can be used in future outreach efforts. **[Factors 2 and 8 – Sustainable and ROI]** 

# B. "Pending" Voter Registrations Tracking and Alert System:

Purpose: Reduce Failure Rates through Greater Real-time Visibility into the Voting Process *[Factor 5 - Innovation]* 

When a voter generates a registration/ballot request form using our online wizard, the voter's application can not be moved into the voter registration database and identified as active until we have reconciled the form with a signed original paper form received in the mail – at the county level. *[Factors 1, 2, 3 – Significance, Sustainable, Impact]* 

We are sure that many voters create their registration/ballot request form online, but fail in the further steps of printing, signing and mailing the form to their LEO as required. Insight into what percentage of voters "fall out" during the process would be very strategic information to gain and allow us to take pro-active measures in time to make a difference. [Factors 1 and 3 – Significance, Impact]

We propose to take the voter records, as they are created online with the voter registration wizard and move them into a central "pending" location that can be accessed by the local jurisdiction. When the voter's signed original form is received, the voter record will be marked online as reconciled/authenticated, and released into the voter registration system database. Note that the printed forms will have an indication as to whether they were generated using our online wizard system.

As a specific measure to reduce failure rates, **[Factor 1 - Significance]** we will set up an alert system. At predetermined time intervals, e.g. every week, a list of voters whose records are more than 3 weeks old but still not reconciled will be generated and action will be taken to alert them to their fact their form was not received.

<u>Data Aspects</u>: A new insight *[Factor 5 - Innovation]* can be gained from this innovative "pending" file capture system. One will be able to observe voter behavior, i.e. the relationship between voter intent to register and whether they follow-through on printing and posting the registration request form or not. This will be the first time that such a precise level of visibility is gained. With this an assessment of the factors that affect completion of the process can be made.

# C. E-Mail List Development:

Purpose: Build Communications and Outreach to UOCAVA Voters

Reminding voters to take action at crucial times during an Election Year will support growth in successful participation. Perhaps you are often aware of looming deadlines, but have not had a way to easily inform UOCAVA voters. *[Factor 1 - Significance]* 

A proactive communications program is possible with applications like the RAVA voter registration wizard that can build a UOCAVA voter contact list. **[Factor 1 - Significance]** We will automate the collection of voter email addresses for voters who opt-in to our list and integrate that with an online mail system designed for mass mailings. Okaloosa County can then plan to conduct regular informational online mailings to remind UOCAVA voters of important deadlines, registration requirements and any other key information. **[Factor 3 - Impact]** 

<u>Data Aspect</u>: The contact list will inform us of the percentage of voters that are interested in a closer link to our office as it concerns voting and elections. We will also be able to track the success of any notices sent – for example, the click through and open rates of the e-mails sent to the list will give insight into the value of this form of outreach.

# D. Data Collection – Reporting Dashboard Enhancements [Factor 2 and 5 – Sustainable and Innovative]

OVF will supply a backend Reporting Dashboard system, which provides real-time access to our voter registration data and the opportunity to easily perform cross tabulation of aggregate data. This will be an integral aspect of the system. A new interface will be developed to allow us to define and schedule regular reports. This will assure better data tracking and allow for timely, pro-active outreach should participation be less than expected.

The complete voter data record can be extracted from our database and used in reporting. We will gain a complete demographic view of our voters including, military or civilian, age, gender, country of residence, voting history, etc. Tracking voter demographics is essential as these factors may act as intervening variables, which impact an individual's success during the voting process. That is, the successful use of technology can be influenced by the individual's age and education level.

We hope to lead the way in analysis of voter data and election process data that we, others, or FVAP could use to compare to other jurisdictions of similar profile. *[Factor 4 - Strategic Approach]* 

# 3) Schedule and Milestones:

# Timelines for both technical development and project management

Month 1	System Requirements Review
Month 2-3	Okaloosa County UOCAVA Voter Services website online offering Services ii.A. – ii.D. to voters.
	Data capture active
Month 4	Regular Reporting on voter registration established
	Data Integration with balloting system underway
Month 5 -6	Plan and set-up data monitoring activities for Florida primaries; Compile and evaluate UOCAVA voter process, overseas voter characteristics
	Registration to balloting system data transfer and integration testing underway
Month 7-9	Evaluate voters experience with website services, State and local information, Voter Help Desk, Candidate Finder, Use of FWAB
	Evaluate registration and ballot transmission services
Month 10-12	Analysis of technical success, targets achieved, indicated adaptations, etc in the actual 2012 General Election
Month 13	Final project report including post election results
	Assessment of goals and objectives achieved

# 4) Reports:

# A. Programmatic and Financial Progress Reports

In order fulfill the programmatic and financial progress reports requirement, bi-monthly progress reports will be issued documenting program implementation. Each report will contain the following information:

- 1. Usage: the number of RAVA applications created, the number of FWABs created, the number of questions received on the help desk
- 2. Tracking of Voter Demographics (such as voter history, voter types, age, gender, education level): This data will be provided through the reporting dashboard
- 3. Google Analytics: number of site visits, bounce rate, time spent on site, page views

The first report can be generated after the data capture element is implemented. Thereafter, these reports will be compiled in months 4, 6, 8 and 10.

Documentation on the financial status of the project will also be provided.

# B. Data collection points reports

This report will be issued twice during the project, first at the half-way mark and after project is completed. This report will document and focus on issues that occurred during data collection: what data was more difficult to collect than others. The final data collection points report will make recommendations on how to improve data collection in future elections.

# C. Election Report on Voter Experience in the 2012 General Election

The election report will analyze the overall success of the project. It will provide the final statistics on the usage of voter servers and blank ballot delivery. It will also contain macro-level data provided by the county including:

- Number of registration/ballot requests received
- Number of individuals who created a form but did not send it in
- Number of UOCAVA ballots sent out (by type of voter)
- Number of UOCAVA ballots returned (by type of voter)
- Number of UOCAVA voter ballots counted
- A breakdown of the reasons for ballot rejection including: ballots not received in time, not received at all, and those ballots that were "spoiled"

Using these numbers we will be able to calculate ballot return rates and ballot rejection rates, which will serve as benchmarks in future research. The final report will also include regression analysis to measure the impact of intervening variables and to evaluate the final hypotheses.

We will evaluate the success of program implementation by comparing the outcomes of our county with those of other similar jurisdictions, where possible, as well as results from the 2008 election.

# (iv.) MANAGEMENT APPROACH

Okaloosa County proposes to implement a customized Overseas and Military Voter Services Website to be the "portal" of all UOCAVA activity for our voters. Services to manage the entire UOCAVA voting cycle will be made available from this site. We will direct all UOCAVA outreach and communications traffic to this new full-service destination and look forward to it becoming the means by which we can provide a modern, efficient, MOVE Actcompliant and reliable service. We expect to relieve the manual effort of our current election personal and at the same time currently grow the number of participating UOCAVA voters.

Choice of Supplier: OVF's seven-year investment in technology and service development has specifically and exclusively targeted online UOCAVA voter solutions. They have gained knowhow and real-world technology assets unmatched in the field. OVF has the depth of expertise required to develop a state-of-the-art UOCAVA voter service site with an excellent user interface and suite of applications.

Okaloosa County seeks to take advantage of this expertise to reduce risk and guarantee success in our own UOCAVA implementation. At the same time we seek a positive transfer of knowledge, skill and capability to Okaloosa County. We desire longer term cooperation with providers, which will ensure cost benefits for both sides and will allow Okaloosa to be a part of the innovative developments in the future.

Because UOCAVA voters have a historically higher failure rate when it comes to voting, it is imperative that Okaloosa County develop and deploy a greater range of tools to minimize that failure and maximize voter success. The Voter Web Portal project will accomplish just that.

Our strategic goals include:

- Using the Registration and Absentee Voter Application tool (RAVA) to assist voters in keeping their registration information as accurate and up-to-date as possible; and helping track those who might otherwise not complete the registration, absentee request and voting process.
- Using the Vote-Print-Mail FWAB wizard to assist those who need these last chance ballots. Using its upgraded "zip-to-district" features will allow UOCAVA voters to make real choices in not only Federal races, but in State and local races as well.
- Using the My Voter Account database to make sure that returning voters can save their information and expedite future interactions with Okaloosa County. Regardless of which other tools they take advantage of, the MVA system will keep them connected to their local elections official.
- Using the customized knowledgebase of the Voter Help Desk to provide a robust system of solution trees to make vital information more readily available to the UOCAVA voter.
- Using the Voter Information Directory to keep voters apprised of critical election deadlines and upcoming events of significance that may impact their successful completion of the voting cycle.
- Using the Candidate Finder to give UOCAVA voters a wider pool of information on which to base their voting decisions.
- Providing continuity and sustainability of all of these tools to make sure that Okaloosa County's UOCAVA voters will remain successful voters.

### Analysis and measurement of current process

The current UOCAVA process is an inherently detached process. UOCAVA voters communicate with Okaloosa County via mailed pieces of paper. Although we have expanded the use of e-mail, the process of making sure these voters complete the registration and request, receive and vote their ballots is largely in the hands of the voters.

Although we provide as meaningful of statistics as our current system allows, we cannot account for how many and which voters started the process but failed to complete it. The paper-based system is no longer the most effective way to interact with UOCAVA voters.

# Identification of potential risks and mitigating strategies

Potential risks to the implementation of these tools include:

- UOCAVA voters will now be registering using an electronic wizard for the first time and may have difficulties with the online process
- Despite the reminders, voters may not take the additional steps to download, sign and submit their FPCA
- Voters may believe that they have completed all the necessary steps, but in fact have no confirmation of their status
- Voters who have completed the registration and absentee ballot request process may not be cognizant of the availability of their ballot when it is time to vote—especially for unscheduled special elections
- Voter information could be vulnerable to security issues

Once the voter completes the FPCA process and chooses an option for submission, they will receive an automatically generated email reminding them to submit their application in case they have not yet done so. Providing additional reminders that the application is not complete until it has been downloaded signed and submitted will mitigate the risk that the voters might not return the application despite the enhanced system features.

In the "Pending" Voter Registration Tracking and Alert System, we will take the voter records, as they are created online with the voter registration wizard and move them into a central "pending" location. When the voter's signed original form is received, the voter record will be marked online as reconciled/authenticated, and released into the voter registration system database. Note that the printed forms will have an indication as to whether they were generated using our online wizard system.

As a specific measure to reduce failure rates, we will set up an alert system. At predetermined time intervals, e.g. every week, a list of voters whose records are more than 3 weeks old but still not reconciled will be generated and action will be taken to alert them to their fact their form was not received.

Additionally, the same reminder system will also be used to let voters know when ballots are available or have been mailed. This will enable the voter to proactively use existing systems to track the status of their absentee ballot and receive confirmation when their voted ballot is received.

OVF systems do not track or archive Social Security numbers, drivers' license numbers, or even complete birthdates when they are submitted as part of the RAVA service. During a registration

session personally identifiable data is stored only long enough to dynamically generate a completed FPCA in \*.pdf format. Personal data collected as part of that process is immediately deleted from the OVF systems once the \*.pdf is generated.

# Formalization of performance indicators

The role that information plays in improving the UOCAVA voting process is vital. Better information inherently leads to better decisions. All of the tools that are part of this UOCAVA Web Portal project will yield detailed statistical reports—even including applicants who begin the process but never finish—to enable Okaloosa County and FVAP to better recognize and quantify metrics for systemic failures and implement plans to minimize those failures in future elections. Our data will not only serve Okaloosa County but also other jurisdictions of similar size and makeup.

# Justification for the modification to the existing process

While the current paper-based system currently employed by Okaloosa County gets the job done, it fails to account for those who begin the process but never complete it. By deploying a web portal solution, we will be better able to communicate with, track, and inform our UOCAVA population, improving not only their success rate individually, but also improving the overall system for future voters. As our military voters become more mobile, we need more flexible tools to reach them and stay in contact with them. Using tools such as RAVA, we expect a 60% increase in registrations from UOCAVA voters. Using the data generated by RAVA and MVA, we will gain a greater insight into the patterns of behavior and be better able to develop plans to reach these hardest-to-reach voters.

### Measurements of performance

Our objectives will naturally include a constant assessment and logging of every step in the process for the UOCAVA voter. We can measure and provide detailed statistics on the following (not an all-inclusive list):

- Number of UOCAVA voters using online registration tools to register or update address information
- Number of forms completed and printed
- Number of forms received by Okaloosa County
- Number of voters requesting absentee ballots
- Number of voters using FWAB wizard
- Location of UOCAVA voters using the system
- User statistics of more innovative tools such as mobile phone applications

# Current and pending (other) project proposal submissions:

Okaloosa County has also applied under this same grant program (CFDA 12.217) as the lead for a multi-county consortium seeking funding for an absentee ballot delivery system.

# Qualifications:

Overseas Vote Foundation (OVF) helps overseas and military voters participate in federal elections. OVF's mission is to facilitate and increase participation of these voters by providing public access to innovative voter registration tools and services.

Integral to achieving that mission is making it easier for all Americans residing around the world, and all military and dependents residing outside their home jurisdiction, to be able to stay active in their home state's electoral process.

OVF's key activities include:

- Develop tools and services that simplify the overseas and military absentee voter registration process
- License customized voter services applications to states and voting organizations
- Provide support to voters through an ongoing communications program
- Research and surveys of U.S. citizens regarding the overseas and military voter registration and absentee ballot process

Overseas American citizens, State Department employees, and active duty uniformed service members and their accompanying families within and outside of the United States vote under the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) and can all register to vote from abroad using OVF's services.

OVF is not connected in any way with any US government or US military organization. OVF is a 501(c)(3) nonprofit, nonpartisan public charity incorporated in Delaware.

### Key Contractors with OVF

Ms. Susan Dzieduszycka-Suinat is President & CEO and cofounder of Overseas Vote Foundation (OVF). Since 2005, she has worked for the foundation full-time and manages OVF's strategic and operational planning, technical development, staffing, research, marketing, and alliance programs. Susan spearheaded the functional specification, development and launch of the complete suite of OVF Internet-based voter services available online today. OVF's suite of six software applications is the first of its kind within the U.S. and a direct outcome of Susan's vision for overseas and military voter services that work within today's security paradigm. Her understanding of the real and practical needs of overseas and military voters coupled with her ability to translate these needs into logical, easily accessed technology solutions is demonstrated on the current OVF website. Dr. Claire Smith joined the Overseas Vote Foundation in September 2008 as a volunteer. During the presidential election, Dr. Smith worked a front line support position on the Voter Help Desk, communicating to US voters around the world. In January 2009, Dr. Smith joined with OVF's post-election research team where she used her research experience to analyze and write the 2008 Post Election UOCAVA Voter and Election Official Research Reports. Dr. Smith is now charged with managing OVF's research program and acting as an intermediary to the academic and professional research community, as well as developing and executing OVF's own research objectives and those of their clients.

## (v.) BUDGET PROPOSAL

## **Itemized Budget**

## a) Direct Labor:

We do not expect to incur an additional labor costs associated with this project.

## b) Administrative and clerical labor:

We do not expect to incur any additional administrative or clerical labor costs beyond what we already have budgeted to assist UOCAVA voters and administrate the MOVE Act.

## c) Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):

We do not expect to incur any additional fringe benefits and other overhead costs.

## d) Travel:

We do not anticipate any additional travel related expenses for this project.

## e) Subcontracts/sub awards:

The pricing for licensing and annual support is attached to this document.

## f) Consultants:

Based on Quote received from Overseas Vote F	oundation
Item/Description	Associated Price Breakdown
Standard Development Items	-
Complete hosted System, customization, design, licensing, etc.	\$50,000
Data transfer services and vendor integration	\$25,000
Website interface design and customization	\$5,000
Post-project research report	\$15,000
Website/portal hosting and server bandwidth	\$15,000
Standard Development Items Subtotal	\$110,000
Customized Development Items	
Mobile Application (Android/iPhone)	\$28,571
Vote-Print-Mail FWAB upgrade	\$28,571
Candidate Finder upgrade	\$10,000
Reporting Dashboard enhancements	\$12,727
"Pending" reg. form completion database/confirmation notice	\$28,571
Bar code integration	\$9,091
Contact List (e-mail) signup/integration	\$10,000
Customized Development Items Subtotal	\$127,531
2012 Licensing Fees	
Single-jurisdiction annual fee (\$5,000)	\$5,000
2012 Licensing Fees Subtotal	\$5,000
Overall Project Total Budget	\$242,531

We do not intend to use nor request funds for any additional outside consultants for this project.

## g) Materials and Supplies:

We do not anticipate materials and supplies beyond what we already have budgeted to assist UOCAVA voters and administrate the MOVE Act.

#### Economic feasibility for Okaloosa County election office: ROI consideration

#### [Factor 8 - Cost Benefit Analysis]

The calculation is based on a best-case assumption that implementation of the proposed new election tools, thereby replacing the current UOCAVA handling procedure, will grow new registrations and thus increase the active UOCAVA voter base by 60 % from the present 7,000 to 11,200. When seen over the next few election cycles, the assumption is very likely accurate.

# A. Current costs: 7,000 overseas voters, one election cycle, current handling procedure

electronic equipment, service, software costs, licensing, development	\$ 40,000
personnel costs, moderate skill, administration costs,	<u>\$ 120,000</u> \$ 160,000

# B. Projected costs: 11,200 overseas voters (60 % more), one election cycle, using new project tools

electronic equipment, service, software costs	\$ 40,000
software license for new tools	\$ 25,000
personnel and admin costs (now somewhat reduced)	<u>\$ 100,000</u> \$ 165,000

# C. Projected costs: 11,200 overseas voters (60 % more), one election cycle, current handling procedure for comparison

electronic equipment, service, software costs	\$ 40,000
personnel and admin costs (now somewhat more due to 60% more voters)	 <u>160,000</u> 200,000

Savings for 11,200 voters	\$ 35,000 compare B and C
Investment for reaching over 11,000 voters	\$ 5,000 license royalty per year

#### Payback within a few months

Development costs	\$ 242,531	(see budget, paid by FVAP project)
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## **Online Voter Registration for California's UOCAVA Voters**

Proposed period of performance: August 2011 to December 2012.

**Technical Proposal** 

Catalog of Fed. Domestic Assistance Number: 12.217/BAA number: H98210-BAA-11-0001

#### **Applicants:**

Los Angeles County Registrar of Voters-Clerk Recorder CAGE Code: (b)(4) / DUNs: (b)(4)

Orange County Registrar of Voters CAGE Code: (b)(4) / DUNS: (b)(4)

## Trinity County Registrar of Voters-Clerk Recorder

/ DUNs: (b)(4) CAGE Code: (b)(4)

County	Technical Contact:	Administrative Contact:
Los	Ray Ching	Dean C. Logan
Angeles	12400 Imperial Hwy/Norwalk, CA 90650	12400 Imperial Hwy/Norwalk, CA 90650
	Ph: (562)462-2708/Fax: (562)864-8013	Ph: (562) 462-2720/Fax: (562)864-8013
	rching@rrcc.lacounty.gov	dlogan@rrcc.lacounty.gov
Orange	Justin Berardino	Neal Kelley
_	1300 S. Grand Ave/Santa Ana, CA 92705	1300 S. Grand Ave/Santa Ana, CA 92705
	Ph: (714)567-7620/Fax: (714)567-7556	Ph: (714)567-7620/Fax: (714)567-7556
	Justin Berardino@rov.ocgov.com	<u>Neal Kelley@rov.ocgov.com</u>
Trinity	Shanna White, Deputy	Dave Hunt
	11 Court Street/Weaverville, CA 96093	11 Court Street/Weaverville, CA 96093
	P.O. Box 1215/Weaverville, CA 96093	P.O. Box 1215/Weaverville, CA 96093
	Ph: (530)623-1220/Fax: (530) 623-8398	Ph: (530)623-1220/Fax: (530)623-8398
	swhite@trinitycounty.org	dhunt@trinitycounty.org

#### Contractors

#### DIMS

Ross J Underwood, Director 1430 Blue Oaks Blvd #230/Roseville, CA 94757 Ph: (916)746-6407/Fax: (916)746-6499

## DFM

Bruce Krochman, General Manager 10 Chrysler, Suite A/Irvine, CA 92618 Ph: (949)859-8700

#### VOTEC

Tom Nolan, Senior Software Engineer 16870 W. Bernardo Dr., Suite 340/San Diego, CA 92127 Ph: (800)348-6232

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Assurances – Non-Construction Programs

Attachment 1 – Subcontract with DIMS

Attachment 2 – Subcontract with DFM

Attachment 3 – Subcontract with Votec

## TECHNICAL APPROACH AND JUSTIFICATION

## **Executive Summary**

Los Angeles County, Orange County and Trinity County (counties) are collaborating and applying for the Electronic Absentee Systems for Elections (EASE) Grants for States, Territories and Localities. The counties and their election management systems software vendors (EMS) will provide an online voter registration system for Uniform and Overseas Citizen Absentee Voter Act of 1986 (UOCAVA) voters. The project will also coordinate with the California Secretary of State who seeks to develop the statewide online voter registration interface. This system will also provide online registration for all eligible voters and the other 55 counties in California.

Our goal is to increase the success rate of UOCAVA voters registering to vote and casting ballots. Accomplishing this goal will provide greater integrity in the federal elections process. It is in the interest of all of our customers, overseas and domestic, to have equal access to elections. Online voter registration will save taxpayer money by decreasing data entry costs while increasing the accuracy of election management databases.

The online voter registration tool will allow Los Angeles County's election management system (DIMS), Orange County's System (DFM) and Trinity County's system (Votec) to communicate with and transfer data from the California Secretary of State (SOS), including signature images from the California Department of Motor Vehicles (DMV). The online voter registration data transferred will include the voter's signature image on file with the DMV from his or her driver's license.

The collaboration will cover all of the EMS vendors currently operating in the State, ultimately allowing all UOCAVA voters from California to benefit from these data links. The Secretary of State will be applying for a similar grant to facilitate the online voter registration component, which would be maintained and managed by the State.

## **Goals and Objectives**

California has 90,000 registered military and overseas citizen voters (UOCAVA voters) and many more eligible military and overseas citizens who have not yet registered to vote. [UOCAVA registrations from applicant counties include: Los Angeles (40,164), Orange (5,619) and Trinity (30).]. The potential impact of this proposal for unregistered citizens living overseas is great. The United States Census Bureau placed the number of California overseas United States military and federal civilian employees (and their dependents living with them) at 88,033 as of April 1, 2010.

The United States Department of State estimated that there were 4,163,810 US Citizens living abroad in July 1999. Since California is approximately 10 percent of the national population and 75% of the population is eligible to vote (18 or older), it is reasonable to estimate that there are 312,286 eligible California citizens living overseas that could take advantage of online voter registration. Indeed, the Federal Voting Assistance Program (FVAP) estimates the number of military and overseas citizens from California to be 672,686. Of the total California population, Orange County makes up 8%, so Orange County alone would have a target overseas US Citizen population of 24,983.

California counties plan on conducting outreach with the military, federal civilian employers, religious organizations and any other population that may have people overseas. Our success will be determined, in part, on promoting the program to eligible citizens.

## Program Sustainability

The counties are committed to continuous quality improvement. We will work to build upon and improve quality control and overall efficiencies. The program will be added as a mandatory topic for discussion in our respective election planning and election debrief meetings.

Participant observation will be critical to determining changes needed during and after the process. The counties plan to utilize survey data extensively and will continue do so with users of the service and employees administering the program. Election debrief meetings will be conducted after each election. Over 130 items were identified for review following the November 2010 General Election in Orange County alone. The UOCAVA online voter registration program would be included in the debrief meetings to ensure all issues were listed, reviewed and corrected when necessary and appropriate.

## **Expected Outcomes**

Elections conducted utilizing the new voter registration program will be measured against past elections of similar type and size. Additionally, surveys will be conducted of all users of the service and employees involved in the online voter registration process to determine the effectiveness of the program.

We expect to find that:

- 1) The number of voter registrations received by UOCAVA voters will increase.
- 2) Data on active UOCAVA voters will be more accurate.
- 3) We will increase efficiencies in processing voter registrations, specifically processing time.
- 4) The number of employees and time needed to conduct voter registration will be reduced.
- 5) Costs associated with completing UOCAVA voter registrations will be reduced.

## **Current County Models**

Both Los Angeles and Orange County have made innovative and significant strides in developing electronic solutions that improve access to the ballot for UOCAVA voters. In 2010, Orange County began working on a technical approach to much of what FVAP is seeking in the grant. As stated in the grant announcement, UOCAVA voters do not have sufficient time to return their ballots by Election Day. In an effort to combat the issue Orange County developed a comprehensive voter assistance center (Military and Overseas Portal) for the thousands of overseas and military voters who call Orange County home. The Portal is unique to Orange County and can be found at ocvote.com/overseas.

The Portal, created and maintained entirely in-house, provides the technical foundation for what we propose in our grant application. The Portal will be complete when electronic voter registration, providing an immediate confirmation for voters, is available.

Similarly, Los Angeles County developed an electronic Vote by Mail request application, which it makes available to all voters online at www.lavote.net. Voters can request a ballot completely online. This application has proven extremely valuable to UOCAVA voters by reducing the amount of time it takes for a mailed request to be received.

Both Counties have also adopted the practice of delivering un-voted ballots via electronic mail.

Despite county efforts and innovations, voter registration remains a paper-based process that often presents a barrier to UOCAVA voters. While UOCAVA voters may log on to ocvote.com/military, fvap.gov, sos.ca.gov or overseasvotefoundation.org to obtain a FPCA form.

The form can either be completed electronically or by hand. Either way, the UOCAVA voter must print and sign the form. The form then must be sent to their local Registrar of Voters via postal mail or fax. If the form is sent via postal mail it could take three or more weeks to be received. The probability of the Registrar of Voters receiving the registration late is increased due to the unpredictable nature of international mail delivery. Additionally, many UOCAVA voters do not have access to fax machines.

With online voter registration, the UOCAVA voter will receive instant confirmation of a DMV record match and online applications will be received immediately by the SOS and forwarded electronically to the appropriate county elections official. The online voter registration tool, applied to other counties in California, will provide greater access to voting for UOCAVA voters and ensure a higher voting success rate for all UOCAVA voters from California.

The SOS has identified potential risks and mitigation strategies to deal with a voter's personal information being transferred electronically. The SOS discusses the potential for elections officials to take a "hands-off" approach to managing their data. It is possible that budget cuts and the need for efficiency could drive elections officials to trust the system is working for them. However, Los Angeles, Orange, Trinity, and all other counties will not be taking a hands-off approach. Additionally, the decision by the state to develop a statewide online interface and our collaboration with the three EMS vendors in the state will help centralize, automate, and standardize the management of data collection and security. Like any other process, electronic registration must be monitored and tested regularly to ensure accuracy and security.

The three collaborating counties will work with their EMS vendors and the SOS to mitigate risks. The SOS will be training State investigators to perform analyses of potentially fraudulent records, for example. We will work with the State on any and all investigations.

#### **Schedule and Milestones**

The counties will begin their project on August 1, 2011 to coincide with the SOS's project start date. The counties will work with their EMS vendors and the SOS to define, develop, test and deploy online voter registration for UOCAVA voters. This system, once implemented, will be available to all 58 of counties in California.

#### PHASE I

The counties will define and document the current process of receiving and entering paper voter registration forms, including the signature image obtained from the Department of Motor Vehicles. This will include the manual verification of the forms before they are scanned for the signature images. This will also include the data entry process as they are manually entered into the voter registration database. We will clearly define the steps and the decisions that a data entry operator must take when entering the registration forms. We will also define the processes that occur after the registration form is entered, such as duplicate checking and the verification of the driver's license. We need to be sure that all the steps needed to verify and process a registration are documented, in order to ensure the electronic registration undergoes the same scrutiny.

After the current process is laid out, we will document the future process of receiving electronic registration forms, including the signature image obtained from the DMV. As we define the requirements for this process, we will ensure that the same steps of verification, such as duplicate checking, are performed on the electronic registration forms. We will need to collaborate with the State and EMS vendors to develop 1) the functionality to receive online voter registration data automatically from the SOS, 2) the method to import the electronic data, and 3) the processes to verify the data after it has been imported into the county voter registration systems.

We need to be sure that all the steps required for the registration process are included, such as the mailing of voter notification cards and the notification to the State of the registration changes.

The EMS vendors will need to include a method to perform data validation, and present exceptions to the counties if there are any problems importing the data including address standardization.

Based on the potential number of voter registrations and signature images that will be transmitted to the counties by the SOS, the EMS vendors will need to determine minimum requirements for the voter registration systems in order to process the registrations and images. Some counties may need to upgrade their systems in order to accommodate this new process.

The principals have begun the process of collaboration as online voter registration has been a topic of discussion for the California State Legislature. The counties, EMS vendors and State will officially launch this program on August 1, 2011.

## PHASE II

The EMS vendors will be expected to submit a deployment and training plan, which will be approved by the counties. The plan will include expected deliverables and timelines. The online voter registration systems must be working and available to UOCAVA voters by April 1, 2012 when the State looks to deploy online registration. The EMS vendor will also be expected to propose a plan for its user interface, which also must be accepted by the counties.

The EMS vendors will develop the new process of receiving electronic voter registration forms along with the digital signature images. This will be done according to the specifications provided by the State. The EMS vendors will provide the updated software to the counties on or before October 31, 2011, which is the expected date the State will complete its integration testing with the DMV.

The counties will use test data provided by the State, and will use a test voter registration database, or some other method that does not negatively impact the production of the voter registration database.

Use cases will be developed to account for the various scenarios that can occur from users submitting voter registrations online. These use cases will be implemented in the testing phase, to ensure the EMS's handle the data properly. The testing phase will occur from November 1, 2011 to December 31, 2011.

After successfully testing the new process of importing the electronic voter registrations, the EMS vendors will then be able to install the updated software for all of the 58 counties in California. The county users will be trained by the vendors before the SOS makes online voter registration available to the general public.

The counties must accept the training provided by the EMS vendors and the installation of the new electronic registration component.

Once testing is complete the counties will conduct a voter education and outreach campaign to potential UOCAVA voters. The outreach will promote the availability of online services for UOCAVA voters, including voter registration. The counties will work with the military, federal civilian employers and any other population that may have citizens overseas.

The online voter registration system will track the number of online voter registration affidavits received from UOCAVA voters. Systems, such as the one developed and used by Orange

County, will also track the number of ballots requested and received via the online service. We will utilize as much of the current data that is available to use as a basis for discovering best practices.

## PHASE III

The process will conclude with a written report detailing the findings from our program. The report will be delivered to FVAP, California Secretary of State and all 58 California counties. In addition, the report will be made available on our websites. We will issue a joint press release regarding the delivery of the report.

All 58 California counties will be invited to add online voter registration to their services for UOCAVA voters and the general population. The report will be delivered to and a presentation will be made at the California Association of Clerks and Election Officials annual legislative meeting in December 2012.

#### Reports

Data collected will include, but not be limited to, registrations received and ballots counted for UOCAVA voters.

The data will be stored in a database. The information will be drawn to a dashboard to be used by the program administrators allowing them to monitor and analyze progress. We will look for anomalies and adjust the process and procedures as needed.

The final report will document any and all tools, processes and best practices developed for online voter registration. Counties offering additional services to military and overseas voters will include information regarding services such as electronic ballot delivery.

The following reports will be provided to FVAP:

- Programmatic and Financial Progress Reports Quarterly
- Data collection points reports April 1, 2012 (baseline); January 15, 2013 (results)
- Final Report April 1, 2013, or sooner as required by FVAP.

#### **Performance Measurements**

We will document the data collected in the management of the process. We will measure the data against the historical data available to gauge efficiencies. New data will be provided by measuring progress between the June 2012 Presidential Primary Election and the November 2012 Presidential Election.

Our multifaceted dissemination plan for our final report is likely to increase the number of jurisdictions taking advantage of online voter registration. We anticipate that this program would be of interest to election administrators as it increases the satisfaction level of their customers while reducing elections costs.

Costs associated with completing the data entry of voter registrations primarily come from the number of employees needed and the length of time it takes to process them. We will provide a detailed analysis of the number of employees needed and the number of days and hours needed to process voter registrations and projections for what the costs will be based on improved efficiencies discovered on both the UOCAVA and domestic voter level.

We will analyze the success of importing voter registration data from the State's system including obtaining signature images from the DMV. We will ensure the electronic voter registration functionality is completely integrated with the manual data entry process that will need to be maintained. An analysis of the systems functionality and issues resolved will be provided in the final report.

#### **Dissemination efforts**

A report will be completed in December of 2012 detailing the counties' experience with the online voter registration program. The report will detail planning, training, execution, debriefing, modifications and provide a conclusion.

All survey data and debrief information will be made available to FVAP to assist in their research and tracking of the effectiveness of jurisdictions' programs. Online voter registration, once implemented by the State, will be available to all counties. The potential reach based on Census data is roughly 90,000 people from California while estimates created from United States Department of State data places it around 300,000. Implementation costs to the remaining 55 California counties will be negligible as the State and the EMS vendors will have participated in this program. The counties expect a turn key product to be available. Cost savings will be realized with the reduction of costs associated with data entry.

## MANAGEMENT APPROACH

#### Strategic Goals

The counties are determined to inform all affected citizens residing overseas of their ability to register to vote online. It is likely that many of the roughly 90,000 to 300,000 Californians residing overseas come from Los Angeles and Orange Counties. Los Angeles County is the largest voting jurisdiction in the United States and Orange County is the fifth largest. The counties have working relationships with the military, federal agencies and business entities located in Southern California that will assist us in reaching out to the overseas population.

The counties strategic goals include 1) Increase the registration rate of citizens living overseas and 2) Increase UOCAVA voter turnout.

#### 1) Increase the registration rate of citizens living overseas

Our goal is to increase the registration rate of eligible California citizens residing overseas. In addition we will obtain voter registration changes for those that are registered, but need to update their information.

The Federal Voting Assistance Program (FVAP) estimated in 2008 that the number of military and overseas citizens from California was 672,686. While it is difficult to determine <u>by county</u> the number of eligible citizens that are not currently registered and are in the military or living overseas, it is clear how many overseas voters are currently registered in the respective counties. Los Angeles (40,164), Orange (5,619) and Trinity (30) have over 45,813 active UOCAVA voters.

The counties will conduct outreach to organizations that have people located overseas including: federal agencies (military included), religions organizations and corporations.

The counties conduct outreach throughout the year and have partnerships with business groups and religious organizations. We also work closely with government agencies on the local, state and federal level. These connections will provide the basis from which to build on when conducting outreach to potential overseas voters.

The counties are home to several high profile companies and religious organizations of various denominations. Their collective reach ensures a high probability of success.

Orange County is currently redesigning its consolidated marketing brochure that advertises voting and volunteering opportunities. The new brochure will include a section dedicated to UOCAVA voters and potential overseas voters.

The counties will create an electronic brochure targeting overseas citizens. Organizations that have staff and/or representatives overseas can use the brochure to disseminate online voter registration information to them. The electronic brochure will direct people to the online registration page of their county's website.

Los Angeles County utilizes email to deliver important election information to UOCAVA, every election. This practice will be ideal to quickly and directly informing UOCAVA voters of new services. Emails providing information about online voter registration with a directly link to the online voter registration system will be sent to UOCAVA voters with emails on file.

For the Portal to be complete the online voter registration component must be a comprehensive and immediate process for the voter. Currently the voter must fill out the information, print the application, sign and return it. They may mail, email or fax the application back to their county Registrar of Voters. Many overseas voters have access to the Internet and email but often do not have the accessibility of a printer and/or a fax. Additionally, mail delivery can be extremely slow causing the Federal Postcard Application (FPCA) to be received after the close of registration.

The current method does not provide the UOCAVA voter instantaneous confirmation of their registration. Online voter registration would eliminate the necessity of printing, signing and mailing or faxing the application. The signature would be provided by the California Department of Motor Vehicles. Additionally, the voter would be provided instant confirmation that his/her registration has been processed.

The Portal eliminates the need for overseas voters to utilize the Federal Write-In Absentee Ballot (FWAB) application. With the FWAB the voter sends a ballot with their form. This ballot can only be counted if the voter had previously requested a ballot. In Orange County this resulted in approximately 150 voters mistakenly believing their registration and ballot requests were valid for the November 2008 Presidential General Election and the November 2010 Statewide General Election. This occurred due to circumstances beyond our control. However, with online voter registration through the use of the Portal voters in this category will no longer be disenfranchised.

The EMS vendors need to create a method to automatically import voter registration data from the State's CalVoter system. This functionality must include the ability to import the signature image provided by the DMV. The EMS vendors must update the voter registration system to process electronic voter registration records while maintaining the current manual data entry process capabilities. The voter registration systems must also be updated to allow users to review the imported data. They need to implement a method to distinguish between reregistrations and new registrations. The new process of importing electronic voter registration data must then be thoroughly tested to ensure that all modifications function properly.

The counties, working with the EMS vendors and the Secretary of State, will identify potential risks associated with online voter registration. For example, we will work together to mitigate the risk of a voter's personal information being compromised. There is currently no security risk to Orange County's Military and Overseas Portal.

The success of the program will be measured by the number of online voter registrations processed by each county from military and overseas voters. We will also be able to measure success in cost savings associated with the reduction of staff time primarily in the performance of data entry. In order to ensure that the new process is positively received by the military and overseas voters, we will survey them upon confirmation that their registration has been processed. We will also debrief staff responsible for the online voter registration process of military and overseas voters to ensure we are providing a quality product that can be reproduced statewide.

#### 2) Increase UOCAVA voter turnout

In addition to registering voters, the counties' goal is to increase the voter turnout rate of overseas voters. The likely result of increasing the number of overseas registered voters will be to increase the number of ballots received by overseas voters.

Orange County currently offers their Military and Overseas Portal that allows the voter to review his/her voter information, download his/her ballot, sample ballot and other supporting documents. This service helps voters return their ballot to the Registrar of Voters in a timely

manner. The Portal was first offered prior to the 2010 General Election and the initial response from users was extremely positive.

The Portal allows these voters to receive their ballots electronically rather than receiving them by mail. This allows additional time to research, vote their ballots and return them to the Registrar of Voters. By providing online voter registration this process would be expedited further.

#### **Current and Pending Project Proposal Submissions**

There are no current or pending project proposal submissions for Los Angeles County, Orange County or Trinity County that are related or complementary to this proposal.

## Qualifications

## **Program Participants**

The Orange County Registrar of Voters produces most of its programs entirely in-house. There are typically no additional costs above their already incurred labor costs associated with development or implementation. It will be necessary to enlist the support of the voter registration database company of each of the three counties including DIMS, DFM and Associates and Votec. Los Angeles County, Orange County and Trinity County will be working in collaboration. The counties will also work closely with the California Secretary of State.

The collaboration will ensure that the three EMS vendors utilized by all 58 California counties provide online voter registration capabilities making online registration available to all UOCAVA and domestic voters in the state.

#### Los Angeles County Personnel

#### Dean Logan, Registrar-Recorder/County Clerk

Dean Logan is the Registrar-Recorder/County Clerk for Los Angeles County—the nation's largest and most complex county election jurisdiction with 4.3 million registered voters and over 500 political districts. The Department conducts state primary and general elections and approximately 200 city, school and special district elections each year.

Mr. Logan has more than 20 years experience in elections. He serves on the Board of Directors for the California Association of Clerks and Election Officials, as well as on the California Secretary of State's *VoteCal Statewide Voter Registration System Advisory Committee*, the Election Center's *National Task Forces on Education & Training* and *Election Reform* and Pew's *Voter Registration Modernization Working Group*.

## Efrain Escobedo, Executive Liaison Officer

Mr. Escobedo oversees the Department's Public & Governmental Affairs unit as well as our Community and Voter Outreach services. In this capacity he will be directly involved in coordinating inter-jurisdictional communications as it relates to this project. In addition, Mr. Escobedo will help direct the outreach and materials that will promote online voter registration services.

## Ray Ching, Division Manager

Ray Ching is the Information Technology Manager responsible for the department's data center, network infrastructure, and election management systems. He serves as the department's technical liaison with the California Secretary of State regarding the Statewide Voter Database project (VoteCal). Mr. Ching's role in this project will consist of providing oversight, control, and technical direction over key activities and milestones, will

review deliverables for requirements compliance and accuracy and will manage IT staff assigned to the grant program.

## Erika Bonilla, Assistant Division Manager

As the Assistant Division Manager in the Finance and Management Division, Ms. Bonilla manages Purchasing, Contracts, Grants and Fee Studies. She is responsible for managing the Department's grant funding and reimbursement activities as well as managing contract/vendor relations to ensure that County policies and procedures are met when contracting services out. Ms. Bonilla has been with the RR/CC since November 2002 and she will be the administrative contact for the Registrar-Recorder/County Clerk.

## **Orange County Personnel**

## Neal Kelley, Registrar of Voters

Neal Kelley is Registrar of Voters for Orange County, the fifth largest voting jurisdiction in the United States, serving more than 1.6 million registered voters.

He joined the County as Chief Deputy Registrar of Voters in May 2004. Appointed Registrar of Voters in April 2006, Kelley has led the Registrar of Voters' office through the largest cycle of elections in the County's 121-year history. In his role as the County's chief election official, he leads an organization responsible for conducting elections, verifying petitions and maintaining voter records.

Kelley is an appointed member of the United States Election Assistance Commission (EAC) Board of Advisors, serves as the elected Treasurer of the California Association of Clerks and Election Officials (CACEO), and is a Vice President for the National Association of County Recorders, Election Officials and Clerks (NACRC).

#### Justin Berardino, Information and Technology Manager

As the Information and Technology Manager, Justin Berardino is responsible for the department's information and technology needs, data entry, maps and the warehouse. Orange County has the fifth largest voter registration database in the United States with 1,600,000 voters. Orange County processes up to 50,000 registration forms prior to large elections. Nearly 700,000 vote-by-mail ballots were mailed for the November 2010 Statewide Election. The warehouse must maintain and distribute over 10,000 pieces of voting equipment and 100,000 election supplies. Berardino joined the Registrar of Voters in 2002.

## Kay Cotton, Candidate and Voter Services Manager

As the Candidate and Voter Services Manager, Kay Cotton is responsible for handling candidate filing for hundreds of candidates and various measures every election. Her unit conducts voter registration outreach, vote-by-mail ballot request processing and handles the overseas voter process. During the last statewide election the office handled nearly 500,000 returned vote-by-mail ballots. Cotton has been with the Registrar of Voters since October, 2005.

#### Jessica Castaneda, Voting Options Specialist

Jessica Castaneda is the staff member responsible for the UOCAVA voter process. She assists the nearly 6,000 UOCAVA voters that we have on record and helps process new UOCAVA voters. Castaneda is also responsible for ensuring that vote-by-mail requests are processed for each election. She tracks the number of vote-by-mail ballots mailed and received. Castaneda joined the Registrar of Voters in 2001.

#### **Trinity County Personnel**

## Dave Hunt, Registrar of Voters - Clerk / Recorder / Assessor

Dave Hunt is Registrar of Voters for Trinity County, with a population of 14,000 and over 7700 registered voters. He joined the County by being elected in the June 2011 election to the Office of Clerk /Recorder / Assessor, which includes the duties of Registrar of Voters. In his role as the County's Chief Election Official, he leads an organization responsible for conducting elections, verifying petitions and maintaining voter records.

## Shanna White, Deputy Registrar of Voters - Deputy Clerk / Recorder / Assessor

Shanna is responsible for all facets of the elections process; including, but not limited to handling candidate filing and for the various measures associated with every election, voter registration outreach, vote-by-mail ballot request processing and handles the overseas voter process. Shanna has been in this position since April 2010. Prior to that she worked for the Trinity County Auditor's Office for 15 years.

## Contractors

DIMS Ross J. Underwood, Director

**DFM & Associates** Bruce Krochman, General Manager

Votec

Tom Nolan, Senior Software Engineer

#### Program Participant Resumes (Los Angeles County)

#### DEAN C. LOGAN

#### **OVERVIEW OF PROFESSIONAL EXPERIENCE**

**Registrar-Recorder/County Clerk,** Los Angeles County, California (Jan-08 to present) **Chief Deputy Registrar-Recorder/County Clerk,** Los Angeles County, California (Jul-06 to Dec-07)

The Registrar-Recorder/County Clerk is responsible for registering voters, maintaining voter files, administering federal, state, local and special elections and verifying initiatives, referenda and recall petitions. Los Angeles County, with more than 500 political districts and 4.1 million registered voters, is the largest and most complex county election jurisdiction in the country. The Department conducts state primary and general elections and approximately 200 city, school and special district elections each year.

The Registrar-Recorder/County Clerk also records real property documents; maintains vital records of births, deaths and marriages; issues marriage licenses; performs civil marriage ceremonies; and processes business filings and other documents. Annually, the Department records 3 million real estate documents, issues 1 million certified copies of vital records, issues 59,000 marriage licenses and processes more than 20,000 fictitious business name filings. The Department serves an estimated 3,500 customers daily.

The Registrar-Recorder/County Clerk has an annual budget of \$178,572,000 with 1,130 budgeted positions. The current salary for the Acting Registrar-Recorder/County Clerk is \$181,100. The annual salary for Chief Deputy Registrar-Recorder/County Clerk is \$171,659

# **Director, Records, Elections and Licensing Services,** *King County, Washington* (Sep-03 to Jul-06)

The Records, Elections and Licensing Services Division is responsible for all voter registration activity; the administration of local, state and federal elections; recording of real property documents; collection of real estate excise taxes; countywide records management and archives; vehicle, vessel, and pet licensing; marriage licensing; and animal services and programs. King County is the thirteenth largest county government in the United States with 1.1 million registered voters and responsibility for conducting election activities for more than 300 local government and special district jurisdictions.

The Division is responsible for 22 vehicle/vessel licensing sub-agencies and manages 7 community service centers that provide an array of county services during late afternoon and evening hours throughout the County. The Recording Section records more than 700,000 real property documents and issues more than 12,000 marriage licenses annually. The Division serves as the custodian for more than 350 types of permanent records for the County and maintains the County's archives. Over 2 million vehicle and vessel licensing transactions are processed each year by the Licensing Services Section.

The Records, Elections and Licensing Services Division has an annual budget of \$35,239,726 and 183.83 budgeted positions. The current salary for the Director of Records, Elections and Licensing Services is \$141,124.

#### Director of Elections – State of Washington, Secretary of State (Sep-01 to Aug-03) Appointed by the Secretary of State, the Director of Elections is responsible for the administration of the State Elections Division including Voter Registration Services, which administers the motor voter, registration by mail and agency-based voter registrations programs; the statewide Initiative and Referendum Program, which receives

filings for state initiatives and referendum measures, conducts signature verification services and certifies the sufficiency of such petitions; the Voter Outreach and Education Program, which produces and distributes the statewide voters pamphlet prior to each state General Election and supports an array of statewide voter outreach and education activities and programs; and the Election Certification and Training Program, which provides training to local election administrators, political party observers and election canvassing board members, administers a mandatory election official certification program, conducts regulatory compliance reviews of local election offices and serves as a statewide clearinghouse for elections and voter registration related legal opinions, research and legislation. The Director of Elections serves as a policy advisor to the Secretary of State on elections and voter registration issues and has frequent interaction with the State Legislature and members of the state's Congressional delegation. The Director also serves on statewide and national advisory panels and has oversight responsibility for the certification of voting equipment and state reimbursement of election costs.

The Director of Elections is currently paid an annual salary of \$98,000, with responsibility for 38.77 positions and a biennial budget of \$38,207,923.

# **Kitsap County Clerk (elected)** – *Clerk of the Superior Court and Jury Commissioner* (Jan-98 to Sep-01)

The County Clerk is one of several independently elected officials defined in the Washington State Constitution, with specific and special duties assigned by statute and court rules. The position of County Clerk is best characterized as the administrative and financial officer of the Superior Court. The purpose of the office is to ensure a separation of powers among the three branches of government by preserving the integrity of the judiciary.

Specific functions of the County Clerk include the administration of court records and exhibits; serving as the financial officer of the courts including collection of legal financial obligations and investment of court ordered trust funds; quasi-judicial functions for the issuance of writs, subpoenas and other court orders; ex officio Clerk of the Court during court proceedings to receive and record court documents and exhibits and to establish an independent record of court proceedings for the public; and Jury Commissioner responsible for the administration of jury services for Municipal, District and Superior Courts.

The Kitsap County Clerk is currently paid an annual salary of \$105,734 and is responsible for a staff of 37.5 positions and an annual budget of \$6,402,131.

#### Chief Deputy Auditor, Kitsap County, Washington (Oct-95 to Jan-98)

Under Washington State law, the elected County Auditor serves as ex officio Supervisor of Elections and as the recorder, licensing agent and financial manager in non-charter counties. Appointed by the Auditor, the Chief Deputy serves as the chief administrative officer of the Department and, by law, is empowered to represent the Auditor in all duties and responsibilities of the office. Kitsap County has approximately 135,000 registered voters and a population of 250,000.

The Chief Deputy Auditor is paid an annual salary of \$89,856 and has operational, administrative and managerial responsibility for the Department's 36 positions and annual budget of \$4,856,860.

## ADDITIONAL RELATED EXPERIENCE

**Manager, Election Certification and Training Program** – State of Washington, Office of the Secretary of State (Dec-93 to Oct-95)

Manager, Elections and Voter Registration, Kitsap County, Washington (Nov-91 to Dec-93)

**Lobbyist/Political Action Coordinator,** *Washington State Labor Council, AFL-CIO* (Jun-90 to Oct-91)

Assistant Elections Manager, Elections Coordinator and Licensing Specialist, *Kitsap County, Washington* (Jul-86 to May-90)

## **PROFESSIONAL CERTIFICATIONS & EDUCATION**

**Bachelor of Science Organizational Leadership**, Magna Cum Laude – Azusa Pacific University

**Certified Elections & Registration Administrator (CERA)** – Auburn University and The Election Center

**Certified Professional County Official** – University of Washington Graduate School of Public Affairs and the Washington State Association of County Officials

**Continuing Education** – National Institute for Court Management – *Court Technology and Court Performance Standards*; Auburn University, The Election Center – *Leadership, Election Law, Technology, Ethics and Public Administration* 

## **INTERNATIONAL EXPERIENCE**

International Election Observation in Morocco – National Democratic Institute for International Affairs (NDI) (September 2007)

**Political Exchange – People's Republic of China** – delegate of the American Council of Young Political Leaders (ACYPL) (April 2000)

Citizen Diplomacy Exchange – former Soviet Union (Estonia, Ukraine and Russia) – delegate through Global Concepts (April 1986)

## PROFESSIONAL ASSOCIATIONS AND MEMBERSHIPS

- The Election Center National Task Force on Education & Training, National Task Force on Election Reform, Conference Speaker
- National Association of County Recorders, Election Officials and Clerks (NACRC)
- International Association of Clerks, Recorders, Election Officials and Treasurers (IACREOT)
- California Association of Clerks and Election Officials (CACEO) Board of Directors
- County Recorders' Association of California (CRAC) Member
- California Secretary of State VoteCal Statewide Voter Registration System Advisory Committee – *Member*
- American Council of Young Political Leaders (ACYPL) Alumni Association and Chair -- Washington State Host Committee for delegation from Northern Ireland

## Past Association:

- National Association of State Elections Directors (NASED)
- Washington State Help America Vote Act (HAVA) Grant Advisory Board *Local Government Representative*
- Washington State Association of County Auditors (WSACA) Executive Board, Legislative Committee, Elections Committee

- Washington State Association of County Officials (WACO) past Chair, Legislative Committee
- Washington State Association of County Clerks (WSACC) past President, Director of Legislative Affairs
- Washington State Board for Judicial Administration Public Trust & Confidence Committee, Court Management Council, and Project 2001 – Court Reform Task Force
- National Association for Court Management Delegate to National Conference on Public Trust & Confidence
- American Judicature Society Washington State Team Member, National Conference on Pro Se Litigation

## COMMUNITY ACHIEVEMENTS AND AWARDS

- Professional Practices Paper, Conference Presenter & Finalist The Election Center (August 2005)
- Meritorious Achievement Award Kitsap County Board of Commissioners (September 2001)
- Distinguished Leadership Award Sprint USA & National Association for Community Leadership (1999)
- Campaign Chair (2001), Member Board of Directors United Way of Kitsap County
- Past President, Board of Directors Dispute Resolution Center of Kitsap County
- Community Education Chair, Board of Directors Kitsap County Domestic Violence
   Task Force
- *Graduate* Leadership Kitsap (community leadership development program)
- Past Vice President & Member, Youth Services Committee Kiwanis Club of Port Orchard
- Past Member & Secretary, Board of Directors Hospice of Kitsap County

## SPEAKING AND PRESENTATION ENGAGEMENTS

A testament to my knowledge and experience as a public administrator and, more specifically, my leadership in the field of elections administration, I have been a speaker, panelist or workshop instructor for educational forums and programs offered by: the Cal-Tech/MIT Voting Technology Project, the Pew Charitable Trusts, the American Association of Political Consultants, People for the American Way, The Election Center, the American Bar Association, UCLA Political Science Department, the Thomas and Dorothy Leavey Center for the Study of Los Angeles' Annual Urban Lecture Series at Loyola Marymount University, and a national summit on post-election audits sponsored by the American Statistical Association, Verified Voting Foundation, Common Cause and the Brennan Center for Justice at New York University School of Law.

## EFRAIN ESCOBEDO

## EDUCATION: UNIVERSITY OF SOUTHERN CALIFORNIA

B.A. in American Studies and Ethnicity; concentration American Social and Institutional Life

May 2003

#### AWARDS:

Cum Laude Graduate Honors Prestigious Excellence in Undergraduate Research Award 2003, College of Letters of Arts and Sciences Academic Dean's List, Spring 2001, Fall 2002, Spring 2002, Fall 2003 McNair Scholars Research Award, Summer 2002

## WORK EXPERIENCE: Executive Liaison

04/09 -Present

Los Angeles County Registrar-Recorder/County Clerk Sections Supervised: Media Information Legislative Affairs Community and Voter Outreach Duties and Responsibilities

• Responsible for developing the Department's overall communications strategy and services.

• Duties include development and oversight of Community and Voter Outreach goals and activities.

• Develop and manage important relationships with public stakeholders. This includes partnerships with community organizations, managing relationships with election advocates, as well as candidates and campaigns.

• Responsible for communicating with County Board of Supervisors staff and other government agencies.

• Work on a variety of special projects assigned by the Department head. Currently, managing the Department's efforts to modernize its voting systems through the Voting Systems Assessment Project (VSAP).

## Senior Director of Civic Engagement

07/08 - 04/09

NALEO Educational Fund Organizational Budget: 5,000,000 Annually **Staff Supervised:** National Deputy-Director (2) National Field Operations Manager Regional Director (2) Data Analyst (2) Office Operations Manager Program Coordinator (11) Program Associate Campaign Staff (75)

## **RAY CHING**

## CAREER PROFILE

- Fifteen years experience managing major Information Technology Projects
- Ten years experience supervising high level IT staff
- Twenty years experience analyzing, designing and implementing computer based systems
- Specialist in Microsoft Windows based products
- Expertise in network technology and client-server databases

## MAJOR ACCOMPLISHMENTS

- Designed and helped implement system that tracks affidavits of registration from multiple sources
- Designed and helped implement system that tracks submission and execution of mainframe computer jobs
- Initiated preliminary pilot proposal for Departmental Local Area Network (LAN)
- Designed and initiated Departmental Survey for 'Office Automation' requirements
- Wrote and published specifications for software changes required for implementing provisions of the National Voter Registration Act (NVRA)
- Wrote and published functional specifications for Voter Information Management system (VIMS) Project
- Assisted in drafting of contract for VIMS
- Managed implementation of Voter Information Management system (VIMS)

#### WORK EXPERIENCE

#### From May 17, 2006 to Present (Over five years)

County Department: Registrar-Recorder/County Clerk Payroll Title: Information Technology Manager II Number Supervised: 35

Plans, organizes, manages, and directs the activities of the Network and Voter Systems within the Technical Services Bureau under the direction of the Assistant Registrar-Recorder/County Clerk, Technical Services. This Division oversees and manages a broad spectrum of Information Technology (IT) services and recommends, deploys, and maintains cost-efficient IT programs that directly supports voter and election management functions. The range of IT services that this Division supports include administrative and productivity applications (Internet, Email, Calendar, IVR, Group Messaging, Voice-over-IP, Mobile Devices). The Division also operates the Department's computing and telecommunications infrastructure (Data Center, Network Backbone, SAN/Disk Storage Subsystems, large-scale digital and computer output services, and Help Desk). This Division plays an integral part in supporting the Department's mission of preserving and ensuring the integrity of the people's historic voter and election records.

#### Key duties:

Directs and manages work of network analyst and supervisory staff to ensure 24-hour delivery of a reliable, robust, and secure network infrastructure and telecommunications system.

Provides technical leadership and expertise for the development of long-range plans in the areas of network protocols, network hardware, premise wiring/cabling, wide area network, data/voice convergence, IT disaster recovery planning, and information security.

Maintains a major mission-critical system (Voter Information Management System or VIMS) that manages processes that automate voter registration, absentee voting, poll worker recruitment, petition signature verification and election material processing. Activities include developing Request for Proposals (RFP) and Statement of Work (SOW) for acquisition of software programming services and monitoring of VIMS related contracts for performance and compliance.

Coordinates activities related to development and design of the Department's web site and works with managers to identify long-range needs. Develops strategies to meet objectives related to delivery of Departmental services via the World Wide Web.

Directs capacity planning efforts for meeting the printing, reproduction, and large-scale computer output services needs of the Department and leads initiatives to migrate printing of documents from costly outside vendors to in-house printing resources.

Monitors contracts for the Online Pollworker Training System, Election Help Desk, and Election Task Management and Calendaring systems and consults with users to ensure timely implementation of feature requests. Conducts acceptance testing and validation of software or hardware related services for accuracy and completeness prior to payment of deliverables. Provides technical support and assists in the development of system specifications.

Provides expertise in ensuring that best practices are applied when developing policies and procedures related to IT internal controls.

#### From August 1995 to May 16, 2006 (10 years 9 months)

County Department: Registrar-Recorder/County Clerk Payroll Title: Information Systems Supervisor II Number Supervised: 15

Responsibilities: Voter Database Administration, Database Activity Monitoring, Election Process Tracking, Statewide Voter Database Interface Administration, Mainframe Interface Support, Voter File Maintenance Support, End User Coordination, Systems Development and Project Management, Contract Development and Administration, Network Administration and Service Management.

#### Duties:

Headed the Computing Services and Management Systems Section and was primarily responsible for end-user support and coordination, computer-scheduling operations, all teleprocessing coordination within the Department, and technical support for systems that directly supported voter registration and election management operations. During that time, I developed the pilot Local Area Network (LAN) plan and published the initial results of the research for the Department's Office Automation Plan.

Assigned as the Co-Project Manager for the Voter Information Management (VIMS) Project. The VIMS system replaced the legacy mainframe based 'Voter Registration' system with a Microsoft SQL Server based client-server voter database system.

Designed and implemented the first large-scale local area network (LAN) for the Department. The LAN's architecture was based on fiber-optic technology and allowed the Department to replace obsolete mainframe terminals with desktop computers.

Developed and implemented network management procedures to monitor business critical events and ensure continuous availability of network resources.

Coordinated efforts to design and implement Wide Area Network (WAN) access for City of Los Angeles to allow for remote use of the VIMS System.

Provided technical guidance and conducted research to assist the Department in procuring RAID technology for hosting the newly implemented VIMS voter database.

## PROFESSIONAL EXPERIENCE

Registrar-Recorder/County Clerk, Norwalk, CA 2002 - Present

Assistant Division Manager, \*Acting Executive Assistant, Administrative Services Manager II, Supervising Administrative Assistant II, Administrative Services Manager I, Program Analyst, System and Work Measurement Analyst II

- Operations Support Branch Manager over Contracts, Fee and Studies, Procurement and Grants Sections. Manage 20 staff including planning and organizing work assignments, evaluating work processes, establishing policies and procedures, preparing performance evaluations, approving time-off and discipline.
- Manage over \$72 million in Board-approved contracts, \$57 million annual Procurement budget, \$100 million grants budget and increased Departmental revenue by over \$2 million per fiscal year by developing and implementing fee revisions.
- Document internal work processes and calculate cost recovery for establishment/revision of fees. Requires review of existing statutes and/or proposed legislation, preparation of Board letters, development of financial worksheets for Auditor-Controller approval and coordination with County Counsel and CEO.
- Project Manager over the multi-year, concurrent rollout of the eCAPS Inventory and Procurement Modules that went live in FY 10-11, including updating work processes and internal procedures.
- Conduct cost benefit analyses and make recommendations to Executive Management on potential for bringing in-house, services that are currently contracted out. As Countywide Efficiency Initiative Coordinator, conduct cost analyses to make recommendations to Executive Management to implement process changes to realize savings.
- Advisory Committee member of the Los Angeles County Voting Systems Assessment Project (VSAP) providing guidance and feedback on grant funding and contractual issues related to acquiring a new voting system for the County.
- Prepare SB90 Test Claims, in conjunction with Auditor-Controller, requesting over \$100 million in reimbursement from the State of California for mandated programs for redistricting and voting system de-certification.
- Responsible for administrative assignments and special projects such as the preparation of the Department Head Annual Report, Strategic Plan, Countywide Efficiency Initiative, Awards Submission Programs, including Quality and Productivity Awards, Board letters, Executive reports, etc.
- Successfully managed the Votel You Count! \$2.5 million Countywide Voter Outreach and Education campaign (TV, print, billboard, radio and web outlets) in advance of the historic 2008 Presidential Election and served as the Departmental Spanish language spokesperson.\*
- Liaison between City Clerks throughout the County and the Registrar of Voters. Assisted candidates, community groups and campaigns with election-related processes and concerns.\*
- Managed the Countywide Community Voter Outreach Committee (CVOC) and subcommittee groups to ensure an effective and long-lasting relationship between the Registrar of Voters and community groups.\*

#### District Attorney, Los Angeles, CA 1998 – 2002

#### Administrative Assistant II, Administrative Assistant I, Intermediate Typist Clerk, Student Professional Worker

• Administered and coordinated the submission of grant programs with local, state and federal entities including preparing and monitoring grant budgets to assure total expenditure of funds.

- Administered grants with a combined budget of over \$20 million including preparation of financial status reports, projections and requests for the reimbursement of funds.
- Ensured compliance with all fiscal and programmatic grant requirements, responsible for juvenile accountability grant requiring coordination with 56 cities in Los Angeles County.
- Prepared quarterly reports, statistical updates and presentations as a member of the Drug Endangered Children (DEC) Grant Task Force designed to prosecute individuals who manufacture methamphetamine with children present.

Law Offices of Stuart Barasch, Los Angeles, CA 1994 – 1998 Administrative & Legal Assistant

- Conducted research and prepared reports with recommendations for the solution of legal and procedural problems.
- Summarized and evaluated complex documents including medical reports, federal denials to assist clients in Federal Administrative Adjudication process.
- Managed daily assignments for 9 field representatives and coordinated their varied assignments.

## EDUCATIONAL PREPARATION

Master of Public Administration (2003)Bachelor of Science, Criminal Justice (1998)California State University, Long BeachCalifornia State University, Los Angeles

#### AWARDS AND ACHIEVEMENTS

Dean's List 1995, 1996, 1997 – California State University, Los Angeles Phi Alpha Alpha National Honor Society Member – California State University, Long Beach

#### PROFESSIONAL ASSOCIATIONS & DESIGNATIONS

American Society for Public Administration 1999-2001 Deputy Commissioner of Civil Marriages California Association of Clerks and Election Officials (CACEO) 2006-2010

#### VOLUNTEER EXPERIENCE

Los Angeles Police Department, Youth-at-Risk Program Volunteer 1995-1997

## **LANGUAGES**

Able to speak, read and write Spanish fluently.

## Program Participant Resumes (Orange County)

## NEAL KELLEY

## Objective

To continue my career in elections as a Registrar of Voters, which would allow me to effectively utilize my education, skills and experience.

#### Education

University of Southern California – Los Angeles, California **Master of Business Administration (MBA)** Degree, 1997 University of Redlands – Redlands, California **Bachelor of Science in Business and Management** Degree, 1993 University of Redlands Leadership Honor Society - Dean's List

## Experience

Orange County Registrar of Voters – Santa Ana, California Registrar of Voters, August 2005 to Present

Chief Deputy, Registrar of Voters, May 2004 to August 2005

- Managed, lead and revitalized the department through an historic round of federal, state and local elections (processing, tabulating and certifying nearly 10 million ballots) including successful management of Presidential, Gubernatorial, statewide, special and local elections.
- Created innovative marketing and communication programs targeting stakeholders throughout Orange County, including meeting the needs of our diverse community, with measured results.
- Created award winning community based advisory groups, which have been recognized by the U.S. Department of Justice Voting Rights Section (maintaining strong ties with the language based communities while supporting five required languages).
- Responsible for and effectively manage daily operations of the department which include voter files, warehouse, community outreach, field units, mapping unit, computer, tabulation and administrative operations. This includes personnel administration through the preparation of forecasts of departmental personnel needs; appointing senior level managers; recruiting and management of employees; managing disciplinary matters; and payroll supervision all while adapting to a constantly changing, visible and complex environment.
- Successfully implemented a department wide reorganization plan, which was approved by the county's HR department, the CEO's office and subsequently the Board of Supervisors.
- Using leadership and communication developed strong teams within the department which has resulted in high levels of job satisfaction, performance and improved elections (measured through extensive internal and external surveys of employees, voters, poll workers and stakeholders).
- Created ground-breaking online interactive communication material designed to build workable partnerships with all levels of government and the county's 1.6 million registered voters.
- Through strategic planning created numerous programs to build and strengthen partnerships with community groups, elected officials, municipalities and special districts.

- Using technology fashioned innovative programs and systems designed to improve efficiencies, track purchases and contracts, follow and report election results (all of which has improved productivity and brought positive national and regional attention on the department).
- Effectively interpret election laws and regulations on a daily basis to maintain compliance with federal, state and local requirements in an increasingly complex environment.
- Manage annual department budget through effective administration with oversight on expenditures and long-term strategic focus on identifying alternative sources of funding. Includes line item and program budget preparation, developing performance indicators, projecting revenues, providing justification and public presentations to County Board of Supervisors, senior financial management and Auditor/Controller staff.
- Responsible for and manage large county operations facilities encompassing multiple building locations; coordinating personnel moves and space studies, equipment acquisitions and repairs, coordinated facility maintenance and security and actively manage environmental health.
- Developed complex award-winning public relations programs that focus on technological improvements in the department as well as innovative recruitment models used to staff multiple elections.
- Employ continuous improvement philosophy throughout the department which has resulted in identifying innovative ways of doing business more efficiently at all levels.

## Key Achievements:

- Continually appear on international, national and local media broadcasts such as CBS News, NBC News, BBC Worldwide, PBS, KOCE, KNBC, KCBS, KABC, Fox11, KTLA as well as print publications, radio outlets and online media sources while under intense scrutiny.
- Awarded the 2005 Election Center Best Practices award for outstanding poll worker recruitment program.
- Awarded the 2010 "Democracy Award" presented by the National Association of Election Officials for unique poll worker management system considered the top national achievement in election management for 2010.
- Awarded the 2010 City-County Communications & Marketing Association "Award of Excellence" for new poll worker training DVD.
- **Recognized by the California State Association of Counties** on multiple occasions for innovative election marketing programs, website development, corporate partnership programs and more.
- **Recognized by the National Association of Counties** for innovative election communication programs.
- **Responsible for the highest level of poll worker recruitment** in the history of Orange County elections.
- Served as an International Election Observer for the U.S. Secretary of State in the Iraqi national elections.
- Created one-of-a-kind election programs and services which have been duplicated nationally and statewide.
- Developed and maintain a strong relationship with California Secretary of State, Debra Bowen and her staff, enabling the department to function cohesively with the state's chief elections official.
- On-going testimony presented before the California State Assembly and Senate on a variety of election related matters critical to Orange County.

- Maintain strong ties to the U.S. Election Assistance Commission, which oversees federal election legislation, election operations and voting system certifications.
- Appointed as a Member of the U.S. Election Assistance Commission, Board of Advisors, 2008/2009 and 2010/2011 terms.
- Manage critical relationships with the Orange County Board of Supervisors and staff, recognizing their intense interest in elections in Orange County.
- Resolution received from the Orange County Board of Supervisors for outstanding election management in 2004 and 2010.
- **Guest lecturer on election management issues** at local and national seminars as the chief elections official for the 5th largest voting jurisdiction in the country.
- Successful management, completion and certification of the most back-to-back elections in the history of Orange County.
- Implemented a strategic plan to bring production operations in-house and established automated processes for ballot preparation, production, printing, inserting, mailing and extraction of ballots.
- **Consistently produce election results** ahead of any other large urban county and certify results efficiently, accurately and ahead of schedule.

Inland Court Services, Inc. - Riverside, California

President / CEO, January 2001 to April 2004

- Developed and implemented educational programs designed to train individuals on policy and procedure of the California Superior Court system.
- Interpreted court-related programs to the public through direct community contact, involvement with public agencies and civic activities.
- Responsible for the selection and training of personnel.
- Developed, analyzed and implemented multiple budgets in order to meet fiscal requirements.
- Maintained state mandated records and licenses required of personnel involved in court related activities.
- Management of legal documents and child support court issues as mandated by the federal and state government, evaluated policy and made recommendations related to court functions in order to improve current processes.
- Regularly implement new technologies in order to maintain efficient operations and to meet current demands on technology related issues including direct exeprience with programming and developing proprietory software systems.
- Oversight and management of personnel throughout the organization.
- Routinely negotiate and maintain commercial and government related contracts.
- Developed online tracking program for court related cases and management of caseload throughout the organization.
- Development of classes for the public online and in classroom settings for elective and mandated training.
- Maintained an understanding of California law as it related to the California Court system through involvement in several professional organizations.

Riverside Community College, Business Administration Department – Riverside, California Adjunct Professor, August 2001 to August 2008

- Lectured in-class on management topics such as marketing, organizational behavior, management, budgeting, supervision, entrepreneurship, and related topics.
- Developed curriculum designed to provide students with a complex understanding of the function and organization of organizational management and leadership.

- Encouraged students' understanding of budgets, organizational behavior, and principles of management through lectures and in-class assignments.
- Created in-depth teaching materials for use in class and during complex case analysis.
- Provide feedback to students and college administration on student performance via grades and student evaluations.

The Phototorium, Inc. – Riverside, California

President / CEO, August 1989 to December, 2000

- Developed and implemented all marketing and business functions of the organization.
- Created and maintained an online educational program (recognized by Eastman Kodak as the first of its kind) designed to train and educate members of the photo industry.
- Strategically managed various projects in the retail, commercial and government sectors.
- Routinely negotiated and maintained commercial and government contracts.
- Managed and implemented multiple budgets and maintained fiscal responsibility with thorough and detailed understanding of budgeting, finance and allocation of resources.
- Effectively allocated resources and personnel throughout the organization and provided effective mechanisms to support organizational transitions.
- Maintained state mandated environmental records and assured regulatory compliance throughout the organization.
- Created award winning marketing programs designed to promote the organization and industry.
- Formed goals and objectives for all organization departments and created plans to implement effective change designed to meet the needs of a diverse and large group of customers.
- Developed strong working relationships with government agencies, elected officials and community organizations.
- Established budgeting and financial software to manage millions of dollars in revenue each year.
- Designed an online SQL database, internal P.O.S. and flow-process control software.
- Management of hundreds of employees and employee related matters
- Acquisition and management of all capital expenditures.

## Key Achievements:

- Developed national award winning management programs for the organization and industry.
- Effectively managed hundreds of employees and employee-related matters.
- Awarded the 1999 Riverside Small Business of the Year award (presented by the Greater Riverside Chambers of Commerce and Ernst and Young).
- Awarded the 2000 Sam Walton Leadership Award presented by the Wal-Mart Corporation in Bentonville, Arkansas for outstanding management, leadership and community involvement.
- Appointed personally by Eastman Kodak Company Chairman and C.E.O. George Fisher to advise Eastman Kodak on regulatory and management issues (one of only 9 individuals from across the country).
- Awarded Outstanding Achievement Recognition by President George Bush in 1991 for volunteer activities and community involvement.
- Appointee to the California State Assembly Business Advisory Committee.
- Appointee to the California State Assembly Legislative Review Committee.
- Guest lecturer on organizational behavior, management, and personnel issues at local, national and international seminars.

San Bernardino Police Department – San Bernardino, California **Police Officer**, August 1986 to July 1989

- Attended and graduated from the Riverside County Sheriff's Department 102nd P.O.S.T. approved Basic Academy.
- Received full-time administrative experience in the administration, training, and management of newly appointed reserve officers.
- Assigned to D.A.R.E. as a youth counselor and educational trainer.
- Assigned to speak to youth groups, schools, and drug rehabilitation groups regarding crime prevention and community involvement.
- Managed local neighborhood watch associations.
- Responded to 911 calls for help while on routine patrol.
- Received numerous letters of commendation for actions taken in the line of duty.

## **Professional Organizations**

Photo Marketing Association – Jackson, Michigan
President, Territorial Vice President, February 1991 to December 2001
National Association of Clerks, Recorders and Election Officials – Raleigh, North Carolina
Vice President, February 2007 to July 2011
Secretary, July 2011 to Present
California Association of Clerks and Elections Officials – Sacramento, California
Secretary, Officer of the Association, July 2008 to July 2010
Treasurer, Officer of the Association, July 2010 to Present

## Skills Acquired for all Professional Organizations:

- Directly involved in the implementation of programs designed to build partnerships with government, private industry and community based organizations.
- Designed class offerings on a quartlerly basis which included certificate programs, collaborations with colleges and universities, state and federal mandated training, and hundreds of seminars, classes, and programs over the course of a decade.
- Made budget recommendations directly related to organizational program activities
- Motivated employees and volunteers within the organizations as a leader to provide current programs and support to over 34,000 members worldwide (Photo Marketing Association) and 58 California counties (California Association of Clerks and Election Officials).
- Developed, coordinated and facilitated educational programs on a local, state and national level.
- Developed extensivie community outreach programs to generate interest in the industry, programs and services.
- Routinely negotiated and managed multiple contracts encompassing educational and convention related activities.
- Served on numerous national committees, which made recommendations to executive level management on regulatory, training and government related issues.
- Maintained and developed programs to meet federal and state mandated requirements on training and educational issues related to environmental laws.
- Direct involvement with research into new laws, rules and regulations on a local, regional and national level and developed processes to implement new rules and procedures.
- Lectured at numerous seminars and events throughout the United States on organizational behavior, management issues, and finance related topics.
- Featured on national television as a management expert on industry related matters.

#### **Volunteer Activities**

Graduate Leadership Riverside class of 1998 Graduate Orange County Leadership Academy class of 2004 Orange County Leadership Academy Steering Committee, member Election Services Advisory Committee, PMA, former member City of Riverside Federal Block Grant Committee, former Chair City of Riverside Redevelopment Project Area Committee, former Chair City of Riverside Police Chief Selection Committee, former member City of Riverside Arlington Community Committee, former member City of Riverside Economic Development Board, former member Riverside Chambers of Commerce, Arlington Division, President 1999-2000 Riverside Chambers of Commerce, former executive board member Riverside Chambers of Commerce, former Leadership Riverside Board, member Photo Marketing Association, former California President Photo Marketing Association, former National Territorial Vice President Eastman Kodak Photo Specialty Advisory Board, former member State of California Assembly Business Advisory Committee, former member State of California Assembly Administration of Justice Committee, former member California Riverside Ballet, former board member Toastmasters International, member Recognized by former President George Bush in 1991 for volunteer activities

#### **Computer Skills**

Word Access Excel Outlook MS-DOS Windows 95/98/2000/ QuarkExpress Front Page Photoshop QuickBooks Pro XP/XP Pro/Vista PowerPoint Norton Utilities Adobe Acrobat IBM PCs Network Applications Database Pro OmniForm Pro SQL Database Adobe InDesign Voting system applications Mac OS X

#### Licenses/Certificates

State of California Real Estate License, 2003

Certified Elections and Registration Administrator, graduation and completion 2009 California Commission on Peace Officer Standards and Training (P.O.S.T.), Intermediate Certificate 2002 Qualified for California Commission on Peace Officer Standards and Training (P.O.S.T.), Advanced Certificate 2002 Orange County Sheriff's Department Peace Officers' P.O.S.T. Requalification Academy, 2001 Leadership Riverside graduate, 1998 Orange County Leadership Academy graduate, 2004

Los Angeles County Sheriff's Department, Crime Lab, Forensic Document Examination Training, 2011

FAA licensed private helicopter pilot, 2000

California Commission on Peace Officer Standards and Training (P.O.S.T.), Basic Certificate, 1988

California Gang Investigators Association, Street Gang and Criminal Rehabilitation certificate, 1988

Southern California Peace Officers' Basic Training, 1986

CPR Certified, 2001

Valid California driver's license

#### JUSTIN BERARDINO

#### Key Strengths:

- Project management training and experience
- IT expertise in web development, database design, hardware, software, networking and all other technical needs of an organization
- Ability to recommend and implement solutions to improve business processes and customer service
- Extensive election experience

#### **Professional Experience**

#### Orange County Registrar of Voters, Santa Ana, California (2002 – Present) IT Manager

Responsible for all aspects of Information Technology for the department, including implementing new technology required by legislation as well as growing demands of the community. Provide technical solutions for elections, including internal support and technology accessed by the public.

#### Selected Achievements:

- Involved in development of new customer facing website for Poll Workers. Responsible for requirements gathering, web development, database design and web hosting.
- Implemented improvements to the maintenance of the voter registration list, resulting in a more accurate voter registration database.
- Redesigned the look and organization of the website, which improved ease of use for the public. Added interactive features to the website, allowing customers to easily access information.
- Successfully led \$12 million dollar project of retrofitting voting machines to meet new legislative requirements.
- Led implementation of new absentee processing system, which included integration of software and hardware from multiple vendors. The new, automated absentee processing system not only improved the accuracy of mailing up to 500,000 ballots for each election, but it also eliminated the need to manually process ballots.
- Led the IT department in transitioning the county to electronic voting.
- Improved election night reporting of results, which garnered praise from the media as well as interested customers.
- Documented, redesigned and implemented new ballot creation process, which led to an unprecedented level of accuracy for the ballots in the 2006 election cycle.
- Developed new system for tracking purchase requests and budget information for the department. Carried out entire project, including tasks such as requirements gathering, database design, web development and integration with the County's financial system.

#### Tone Software Corporation, Anaheim, California (2000-2001)

IS Technician

Provided network, hardware and software support to the organization, which required access to a variety of technologies in order to stay competitive.

#### Selected Achievements:

- Upgraded entire network from 10baseT to 100baseT technology. This included planning for the new infrastructure as well as purchasing the required equipment.
- Maintained servers running on multiple platforms, such as UNIX and Windows.

- Designed, implemented and maintained new inventory system to manage assets and software licensing.
- Planned and implemented new backup procedures, which enhanced the company's disaster recovery model.

# UCLA Finance and Information Management, Los Angeles, California (1996-1998)

IS Technician

Provided second level user support to the department. Walked users through issues on the phone, as well as troubleshot issues onsite.

## Selected Achievements:

- Improved communication skills, customer support and troubleshooting skills.
- Became expert in various technologies, including NetWare, Windows and TCP/IP.

## Education

Bachelor of Science, Mathematics • UCLA, Los Angeles, California Master of Business Administration • Vanguard University, Costa Mesa, California

## **Professional Development:**

Database Specialist Certificate · Cal Poly Pomona · Pomona, California County Project Manager Certification · UCI Extension · Orange, California Orange County Leadership Academy · Chapman University · Orange, California

#### MARGARET KAY COTTON

#### **PROFESSIONAL EXPERIENCE:**

#### COUNTY GOVERNMENT: <u>Candidate and Voter Services Manager</u> Orange County Registrar of Voters, 10/05 to Present

- Management of 7-15 people
- Supervision of:
  - o Candidate Filing
  - o Campaign Finance
  - o Vote-by-Mail Ballots
  - o Military/Overseas Voters
  - o Filing of Recall Petitions and Countywide Initiatives
  - o Recount Boards
- Liaison for Candidate Filing, measures, vacancies, and Special Elections with Orange County cities, special districts, and school districts
- Compilation of procedure manuals on above-mentioned areas of responsibility
- Provision of quality customer service to the public

## Administrative & Policy Advisor, Supervisor Tom Wilson

## Orange County Board of Supervisors, 1997 to 10/05

- Office Administration, including supervision of day-to-day activities, clerical oversight, and procurement management
- Policy advisor to Supervisor on issues, agenda items, and budget pertaining to County departments, including Social Services Agency, Sheriff-Coroner, District Attorney, Probation, Public Defender, Courts, Emergency Management, Clerk-Recorder, Clerk of the Board, Assessment Appeals, Registrar of Voters, and Human Resources
- Point person on South Court Justice Center project
- Point person on James A. Musick facility project
- In charge of Fifth District budget
- Supervisor's Alternate Member on Cal Ran 1D Committee-Sheriff's Department
- Compose Supervisor's speeches, in addition to drafting of correspondence and resolutions
- Field work representing the Supervisor at meetings and events
- Responsible for Fifth District personnel/payroll issues
- Handle constituent casework for County departments listed above
- Liaison with Orange County Fire Authority

#### Executive Assistant, Orange County Board of Supervisors

## Supervisor Marian Bergeson, 1995-December 1997

Supervisor Bruce Nestande, 1981-1987

- Managed office; responsibilities included personnel, budget, document authorization, and project priorities
- Interviewed, trained, and supervised clerical staff
- Monitored, evaluated, and analyzed office budget
- Developed office procedures manual
- Served as liaison between Supervisor, Judicial Advisory Committee, and Governor's office

in making recommendations relative to Governor's appointments to the judiciary, state board and state commissions

- Reviewed and analyzed conflict-of-interest regulations and gift ban limitations; maintained Supervisor's records in compliance with regulations and compiled and filed annual statements with appropriate agencies
- Evaluated and made recommendations to Supervisor on Board agenda items
- Composed proclamations for presentation and drafted correspondence in response to constituents' concerns
- Coordinated Supervisor's schedule and organized meetings
- Initiated and maintained opinion maker files
- Supervised volunteers and management interns
- Processed office payroll and utilized initiative and organizational skills in handling confidential materials including personnel records.

#### Administrative Assistant to Senator Marian Bergeson

California State Senate, 1987-1994

- Responsible for administrative aspects of office including personnel policies, work flow, budget, and clerical supervision
- Handled constituent casework, requiring networking with Governor's office, State Legislature, and State agencies/departments
- Coordinated day-to-day operations between Capitol and district offices
- Established all office procedures and prepared written manual on operations of office
- Served as liaison between Senator and constituency, including representation at meetings
- Tracked Assembly and Senate bills through the legislative process, providing the public with information on their status, content, and committee/floor votes.
- Created and improved scheduling system and maintained Senator's calendar
- Drafted correspondence responses on legislation and district related issues

#### Executive Secretary to Assemblywoman Bergeson

California State Assembly, 1978-1981

- Responsible for handling constituent telephone calls
- Resolved constituent problems with State agencies
- Provided general clerical staff support to district office staff
- Determined status of legislation and maintained legislative bill files

#### Assistant to Director Correspondence Unit Office of Governor Ronald Reagan, 1970-1971

- Assisted Director with scheduling, travel arrangements, and personnel matters
- Reviewed and determined disposition of Governor's incoming correspondence (averaging over 1,000 pieces/day), including directing letters to appropriate Cabinet official, drafting responses, assigning form letters, or requesting research on issues

#### CALIFORNIA REPUBLICAN Administrative Officer, 1973-1978 PARTY:

- Created database and maintained statewide membership records consisting of several thousand individuals
- Formulated, implemented and oversaw registration system for statewide conventions
- Provided administrative support at State Party conventions, including preparation of agendas for meetings and serving as logistics coordinator

#### ASSEMBLY/SENATE/ Administrative Assistant, 1968, 1970, 1980, 1990, & 1994 SUPERVISORIAL CAMPAIGNS:

• Responsible for office management, maintenance of special voter files, supervision of volunteers, coordination of logistics for mailers sent to voters, and development of outreach plan

#### **EDUCATION:**

Bachelor of Arts Degree, 1973 Major: History California State University, Long Beach

#### **COMMUNITY SERVICE:**

Conservative Women's League Association, 2003-2010; Orange County Quilt Guild Board, 2000-2009; American Association of University Women, 1974 to present; Saratoga Homeowners Association Board of Directors, 1986-1987; Republican Associates Board of Directors, 1990-1992 – member, 1990-1994; Huntington Harbour Republican Women, Federated, 1994-1996; Business and Professional Women, 1990-1994; active in church activities

#### JESSICA CASTANEDA

#### Experience

2007–Current County of Orange-Registrar of Voters

#### Alternative Voting Specialist/Office Supervisor

Batch Federal Post Card Applications as well as Permanent Vote-by-Mail (VBM) applications. Assist Military/Overseas voters over the phone and by email. Research the Elections Code to ensure that all processes and procedures are compliant. Assist in conducting Signature Verification Certification class to standardize procedures. During election period, supervise staff in preparing voting materials for mailing of 45 and 60 day ballots. E-mail/fax ballots to voters upon request. Process faxed voted military/overseas ballots. Conduct and supervise poll site operations for elections, including printing ballots, assisting voters at counter, and resolving problem situations. Assisted in the development of the Military/Overseas Portal, providing registration information and election materials on demand. Resolve challenged VBM ballots, assist in supervising provisional ballot processing, and process ballots from voters who have attempted to twice. Generate daily VBM reports for managers, leads and public upon request. Assist candidates with filing process, including providing proper forms, appropriate deadlines and scanning and formatting of candidate statements of qualifications. Assist voters/customers with election information and/or research.

## 2000–2007 County of Orange-Registrar of Voters Santa Ana, CA

#### Registration Deputy/Office Supervisor

Assist public/office holders and voters with registration, campaign disclosure, VBM information, and candidate filing as well as any other election-related inquiries. Assisted in the VBM process, researching challenged VBM ballots. Assist in the duplication of ballots that were damaged or were rejected from the scanning system. Process, sort, proof and batch affidavits of registration. Resolve and maintain statistics for problem affidavits. Check out registration forms to Outreach groups. Assist candidates with proper completion of candidate filing paper work. Scan and format candidate statements for publication in sample ballot pamphlets. Created a reference tool for current and past school board and special district members in Orange County. Provide coverage for the Executive Secretary when needed, providing support to prior Registrar of Voters. Temporarily promoted in peak election times, supervise staff and participate on interview panels for several positions within Registrar Voters office. Sign time sheets, train staff, assign and track workload.

Education	1996–2000	Katella High School	Anaheim, CA
	High School Diplom	a, General Education	
Computer & Office Skills	printers, typewriters in standard office pr relations skills. I ha	ssional 2003. Familiar with standard or s, fax machines, photocopying machine ractices such as general office filing, te twe experience with the Election Inform rel Ventura and Omni Page Pro.	s, and knowledgeable lephone and public
Agency Involvement	•	on debriefing process, past member of I Transition Oversight Committee (TOC	v

#### Program Participant Resumes (Trinity County)

#### D AV I D V. HUNT

With my family moving to Trinity County in 1957, I attended Trinity County High School, Shasta Junior College, and Chico State University, studying civil engineering and computer graphic design.

I entered the U.S. Army in 1966, and spent a one year tour of duty in Vietnam as an Air Traffic Controller. Upon returning to Trinity County, I managed Griffith and Associates, a Surveying and Engineering firm for 4 years. Upon obtaining my California Land Surveyor's License in 1978, I opened the firm of Hunt Land Surveying, and successfully operated this business for over 30 years.

I have been active in the local Community by serving on numerous boards and committees, including the Board of Directors for the Trinity Public Utilities District, and the Board of the Weaverville Community Services District. I served a 21/2 year term on the Weaverville Area Transportation Committee; was a member of the Weaverville Area Community Plan Committee; a member of the Trinity Alps Business and Industrial Park Development Committee; and a member of the Bureau of Land Management Liaison Committee.

In January of 2011, I was elected Clerk/Recorder/ Assessor/Registrar of Voters for Trinity County.

#### SHANNA WHITE

#### Profile

Motivated, personable, business professional with a strong financial background. Diplomatic and tactful with professionals and non-professionals at all levels. Accustomed to handling sensitive, confidential records. Thrive in deadline-driven environments. Able to juggle multiple priorities and meet tight deadlines without compromising quality. Demonstrated history of producing accurate and timely work.

#### Education

Introduction to Financial Accounting Introduction to Managerial Accounting Keyboarding & Document Formatting Human Relations on the Job Business Communications Introduction to Business Excel I & II Access PC Accounting Payroll Accounting Basic Accounting Records Management

#### **Key Skills**

Office Skills:	Detail Oriented	Team Player	General Ledger
	Spreadsheets/Reports	Payroll	Fast Learner
	Eager to Learn	Organized	Budgeting
Computer Skills:	Bi-Tech	MS Word	MS Outlook
	Crest	MS Excel	MS Publisher
	QuickBooks	MS Access	MS PowerPoint

#### Experience

Trinity County Auditor-Controller's Office	Senior Account Technician
Weaverville, CA	1995 to Present

I have worked in many positions in the Auditor's office. I quickly became a trusted employee known for team-work, flexibility, accurate and high-quality of work.

#### Highlights

- Communicate effectively with multiple departments to accomplish a job. Established strong relationships to gain support and efficiently achieve results.
- Entrusted to handle the office in the supervisor's absence. Provide timely, courteous and knowledgeable responses to information requested.
- Perform Departmental audits, General Ledger review; Direct contact for External Auditors; Provide direction for Payroll, Health Benefits & Accounts Payable staff.
- Responsible for all unsecured tax apportionments, County's A-87 plan, Accounts receivables
- Earned excellent marks on performance reviews, with citations for excellence in areas including communication skills, work volume, accuracy and quality of work

White Construction & Roofing Lewiston, CA

My family has successfully owned and operated White Construction & Roofing since its existence 1996. My role in this business is the financials.

**Co-owner***I* **Bookkeeper** 1996 to Present

#### Highlights

- Contacted Federal, State & Local agencies to acquire all necessary legal identification numbers to start the business
- Work with numerous vendors to organize jobs.
- Monitor jobs to stay within budget
- Payroll, Accounts Receivable, Accounts Payable, Job Costing, Budgeting
- Communicate with Insurance brokers to negotiate Workers Compensation &. Liability Premiums

#### **BUDGET PROPOSAL**

# 1) Itemized Budget

### a. Direct Labor:

Los Angeles Coun								
	(1)	(2)	(3) Top	(4)	(5)	(6)	(7)	(8)
	Top Step F	Productive Work	ductive Step		tep Adi <sup>*</sup>	d Seconds	Hours Per Total	
	Annual	al Hours		Varia	nce PHR	Per Total	Time	Sub-Total
	Salary	(PWH*s)	(1)/(2)	Facto	or (3)x(-	4) Hours	(6)/3600	(5)x(7)
INFORMATION TECHNOLOGY BUI	REAU							
STAFF TIME RELATED TO ONLINE	ENHANCEMENTS							
Direct Labor								
<ul><li>(1) Info Systems Analyst II</li><li>(2591A)</li></ul>	\$80,083.68	1771	\$45.219	9 90.406	58% 40.8	8 1357200	377.000	\$15,412.32
(1) Senior Application	\$60,083.08	1771	φ40•21	90.400	070 40.0	8 1337200	377.000	\$10,412.3Z
Developer (2525A)	\$91,717.08	1771	\$51.788	90.406	8% 46.8	2 324000	90.000	\$4,213.81
Supervision Labor								
(1) Info Systems Supervisor II								
(2596A)	\$110,892.00	1771	\$62.61	5 90.406	8% 56.6	1 478800	133.000	\$7,528.95
(1) Info Tech Manager II (2571A)	\$129,857.16	1771	\$73.324	4 90.406	8% 66.2	9 360000	100.000	\$6,629.01
()	<i><i><i>v</i> · <i>i</i> · <i>i i i i i i i i i i</i></i></i>	.,	<b>*</b> , <b>0</b> , <b>0</b>	, , , , , , , , , , , , , , , , , , , ,				••;•=;•=
STAFF TIME RELATED TO ONLINE								
(1) Field Rep, RRCC (1156A)	\$42,357.84	1771	\$23.917	7 90.406	8% 21.6	2 360000	100.000	\$2,162.30
STAFF TIME RELATED TO ONLINE Direct Labor (1) Election Assistant II, NC (9313H)	ENHANCEMENTS \$49,642.92	1771	\$28.03	1 90.406	8% 25.3	4 216000	60.000	\$1,520.52
								\$37,466.90
Orange County								
				# of hours spent				
	Hourly	Base		on	% of	Requested		
	Salary	Salary	У	project	effort	Salary		
Neal Kelley	\$85.0		883.20	288	14%	\$24,491.52		
Justin Berardino	\$47.7		340.80	576	28%	\$27,509.76		
Kay Cotton	\$52.2		617.60	288	14%	\$15,039.36		
Jessica Castaneda	\$21.0		804.80	288	14%	\$6,065.28		
Data Entry Technicians			620.80	960	46%	\$19,209.60		
Information Technician Community Program	s \$36.8	52 \$76,5	585.60	120	6%	\$4,418.40		
Specialists	\$30.4	0 \$63,2	232.00	144	7%	\$4,377.60		
epoolailoio	•							

TOTAL

\$101,111.52

#### Trinity County

	Hourly	Base	# of hours spent on	% of	Requested
Dave Hunt	<b>Salary</b> \$37.96	<b>Salary</b> \$78,956.80	project 430	effort 21%	<b>Salary</b> \$16,322.80
Shanna White	\$30.53	\$63,502.40	430	21%	\$13,127.90
Information Technicians	\$32.26	\$67,100.80	85	4%	\$2,742.10

#### TOTAL

\$32,192.80\_\_\_\_\_

#### b. Administrative and Clerical Labor:

#### Los Angeles County

Salaries of administrative and clerical staff will be included in the fringe benefits and indirect cost rate.

#### Orange County

Salaries of administrative and clerical staff will be included in the fringe benefits and indirect cost rate.

#### Trinity County

Salaries of administrative and clerical staff will be included in the fringe benefits and indirect cost rate.

#### c. Fringe Benefits and Indirect Costs:

#### Los Angeles County

Los Angeles County will charge a 70.492% Benefit Rate, a 128.148% Overhead Rate or a 47.184% Overhead Rate depending on the item title. These rates were calculated by the Los Angeles County Department of Auditor-Controller. This is the FY10-11 rate which is the most recent available.

#### Orange County

Orange County will charge a 42.822% Benefit Rate and a 121.53% Indirect Cost Rate. These rates were calculated by consultants at MGT of America for use in Orange County's SB-90 claim with the State of California. This is the FY09-10 rate which is the most recent available.

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#### Trinity County

Trinity County will charge 71.14% Benefit rate and a 62.06% Indirect Cost Rate. These rates were calculated by consultants at PRM Group for use in Trinty County's SB-90 claim with the State of California. This is the FY06-07 rate which is the most recent

#### d. Travel:

#### Los Angeles County

Los Angeles County estimates that Dean C. Logan and Ray Ching will need to travel to meet with the California Secretary of State and the vendor once per quarter or six times over the

life of the grant. The purpose of the trips is to coordinate the efforts of this grant with the proposed California Online Voter Registration (COVR) Project. Ray will fly from Los Angeles County, California or a nearby airport to Sacramento, California. Each trip is expected to be two nights. The estimated cost is \$9,360.00.

In addition, Los Angeles County estimates that Dean C. Logan will need to travel to a CACEO conference to jointly present the results of the online voter registration tool. CACEO conferences are held in different locations each year; however, estimated cost of travel to attend this conference is \$3,800.00.

#### Orange County

Orange County estimates that Neal Kelley and Justin Berardino will need to travel to meet with the California Secretary of State and the California Department of Motor Vehicles once per quarter or six times over the life of the grant. The purpose of the trips is to coordinate the efforts of this grant with proposed California Online Voter Registration (COVR) Project. Neal and Justin will fly from Orange County, California or a nearby airport to Sacramento, California. Each trip is expected to be two nights. The estimated cost based on historical information is \$9,360.00.

In addition, Orange County estimates that Neal Kelley will need to travel to a CACEO conference to present the results of the online voter registration tool. CACEO conferences are held in different locations each year. Historically, the conference has cost \$3,800.00.

#### Trinity County

Trinity County estimates that Dave Hunt and Shanna White will need to travel to meet with the California Secretary of State and the California Department of Motor Vehicles once per quarter or six times over the life of the grant. The purpose of the trips is to coordinate the efforts of this grant with proposed California Online Voter Registration (COVR) Project. Dave and Shanna will drive from Weaverville, California. Each trip is expected to be two nights. The estimated cost is \$9,360.00.

In addition, Trinity County estimates that Dave Hunt and Shanna White will need to travel to a CACEO conference to jointly present the results of the online voter registration tool. CACEO conferences are held in different locations each year. Estimated costs to attend the conference is \$3,800.00.

#### e. Subcontracts/sub awards:

DIMS: \$308,910.00 (See attachment 1)

DFM: \$299,370.35 (See attachment 2)

Votec: \$53,820.00 (See attachment 3)

#### f. Consultants:

#### Los Angeles County

No consultants are planned to be used on this project.

#### Orange County

No consultants are planned to be used on this project.

#### Trinity County

No consultants are planned to be used on this project.

#### g. Materials and Supplies:

#### Los Angeles County

Los Angeles County will update voter education materials targeted at Military/Overseas voters estimated to cost approximately \$20,000.

#### Orange County

Orange County plans to create an insert for the military/overseas voters to inform them of online voter registration tool. A similar insert to announce the military portal cost \$1,160.62 to print 3900. Orange County is estimating the same cost for a future insert.

In addition, Orange County will create a brochure for military and overseas voters. A previous vote-by-mail brochure cost \$9,503.62 to design and \$15,850.03 to print 50,000 copies for a total of \$25,353.65. Orange County estimates similar costs to design and half of the cost to print 25,000 copies for a total estimate of \$17,428.64.

Finally, Orange County will put together a marketing piece for military, governmental agencies, businesses, religious associations and non-governmental organizations to present the information regarding the online voter registration. Similar press packets have cost Orange County \$113.33 for 50 in the past and Orange County estimates that 100 marketing pieces will be needed at a cost of \$226.66.

#### Trinity County

Trinity County plans to create an informational packet to mail to all Trinity County residents to inform them of the on-line voter registration. The estimated cost to design, print, and mail 10,000 packets is \$8,000.

Trinity County plans on preparing a marketing piece for military, governmental, agencies, businesses, religious associations and non-governmental organizations to present the information regarding the online voter registration in an effort to promote this registration tool. The costs of press packets for 100 marketing pieces is estimated at \$350.00.

#### h. Other Direct Costs:

#### Los Angeles County

Los Angeles County will prepare a final report that evaluates project results and lessons learned. This report will be created in an electronic format that is easy to download and email. The report will be distributed via email and posted on the Department website.

#### Orange County

Orange County will create a report to document the results of the online voter registration effort. Past reports have been printed in house at a cost of \$417.45 for 20 copies, \$705.01 for 50 copies, and \$480.58 for 50 copies. Orange County estimates printing 150 reports at an average cost of \$13.47 each for a total of \$2,020.50.

Orange County will also print self mailing surveys to determine the effectiveness of the program. Past survey printing costs have been \$2,025.13 for 12,100 poll worker surveys, \$202.51 for 1,210 poll site surveys, and \$606.94 for 1,250 eslate delivery surveys. Orange

County estimates that printing 2,500 surveys at an average cost of \$0.273 for a total of \$683.33.

#### Trinity County

Trinity County will create a report to document the results of the online voter registration effort. Printing costs for 25 copies are estimated at \$625.00.

Trinity County intends to significantly improve its Web Site, by upgrading the capacity to distribute additional information, specifically the information regarding the online voter registration tool. Although our computer's hardware is sufficiently upgraded, the required software costs are near \$25,000.00.

#### 2) Return on Investment

#### a. Cost Versus Benefit Comparison:

The United States Department of State estimated that there were 4,163,810 US Citizens living abroad in July 1999. Since California is approximately 10 percent of the national population and 75% of the population is eligible to vote (18 or older), it is reasonable to estimate that there are 312,286 eligible California citizens living overseas that could take advantage of online voter registration.

#### Los Angeles County

Los Angeles County accounts for 27% of the state's population. According to the figures above, we estimate as many as 63,237 eligible California citizens living overseas originate from Los Angeles County. Based on this estimated voter population potential per voter costs may approximate \$15.53 per voter, per election.

Los Angeles County estimates a savings of \$2.4 million over the course of five years based on reduced staff time, the ability to hire fewer seasonal employees, and reduce materials needed.

#### Orange County

The United States Department of State estimated that there were 4,163,810 US Citizens living abroad in July 1999. Since California is approximately 10 percent of the national population and 75% of the population is eligible to vote (18 or older), it is reasonable to estimate that there are 312,286 eligible California citizens living overseas that could take advantage of online voter registration. Of the total California population, Orange County makes up 8% of it, so Orange County would have a target overseas US Citizen population of 24,983. The cost per potential overseas voter for this program would be \$24.07. The cost per UOCAVA voter would be \$107.02.

Orange County estimates that it would save half of its average cost to process voter registration cards. From 2006 to 2010, Orange County spent \$953,760 to process voter registration cards with the most being spent during the Presidential Election year of 2008. Savings that would accrue due to the online voter registration would be an average of \$95,376 per year and \$476,880 over five years. The greatest savings would be in the Presidential Election year and is estimated to be \$170,404. This savings is anticipated from the reduced staff time, the ability to hire fewer seasonal employees, and less materials needed. If Orange County only participated in the online voter registration the grant costs would be recouped in a little over six years.

However, since the online voter registration can easily be replicated throughout the 58 counties of California, the return on investment will be magnified. Since Orange County is 8% of the total California population, Orange County's Return on Investment would be 8% of the potential return on investment. All California counties using the online voter registration could save California \$1,192,200 in voter registration processing costs per year. The return on investment in this case would be six months.

#### Trinity County

We estimate there are 50 eligible Trinity County citizens living overseas that could take advantage of online voter registration. The estimated the cost per UOCAVA voter for this program would be approximately \$135.00.

Trinity County estimates a savings of \$3,500.00 per county wide election in reduced staff time, the ability to hire fewer seasonal employees, and reduced materials needed.

#### b. Expected Number of Additional Registrations:

Los Angeles County 1,500 Orange County 562

Trinity County 3

#### c. Expected Number of Absentee Ballot Applications:

Los Angeles County 800

Orange County 250

Trinity County 2

#### d. Expected Number of Information Inquiries:

Los Angeles County 7,000 (unique page views to our military/overseas webpage on www.lavote.net)

Orange County 12,000 (hits on the military portal)

Trinity County 700 expected

#### e. Expected Number of Ballot Transmissions:

Los Angeles County

1,000

Orange County 300

Trinity County 2

#### f. Expected Number of Ballot Markings:

Los Angeles County 0

Orange County 0

Trinity County 0

#### g. Expected Number of Ballots Returns Successfully Completed:

Los Angeles County 192

Orange County 150

Trinity County

#### ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget. Paperwork Reduction Project (0348-0040), Washington, DC 20503.

#### PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

- Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
- 2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
- Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
- Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
- Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 960, Subpart F).
- Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation

Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

- 7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equilable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
- Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

- Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
- 10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
- 11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO (1990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seg.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (PL, 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

- Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
- Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
- Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
- 15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
- Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
- Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
- Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE	
NR	Registrar of Voters	
APPLICANT ORGANIZATION	DATE SUBMITTED	
County of Orange, Registrar of Voters	July 11, 2011	

Standard Form 424B (Rev. 7-97) Back

#### **Technical Proposal**

#### Catalog of Federal Domestic Assistance Number: 12.217 BAA Number: H98210-BAA-11-0001

#### **Online Voter Registration for California's UOCAVA Voters**

#### ATTACHMENT 1 SubContract

DIMS:

Ross J Underwood, Director 1430 Blue Oaks Blvd #230 Roseville CA 94757 Office: 916. 746.6407 Fax: 916.746.6499

\*DIMS is a subsidiary of Election Systems & Software (ES&S)

**Cost Proposal Follows.** 

# DRAFT DIMS.NET ON-LINE VOTER REGISTRATION

The California State Legislature is considering implementation of an On-Line Voter Registration (OLVR) System so the electors can go on-line to web site to register to vote. If properly qualified by reasons of Citizenship, Residency. Age, Felon Status, and Identification Requirements, the electors can fill out a registration form instead of a paper based voter registration application. The OLVR registrant data will transfer to the DIMS.NET production environment, and wait in a queue of temporary voter records until the digital signature image of the voter is appended to the record at which time the registrant's voter data will be transferred to the voter table for election purposes. OLVR registrants will be able to register to vote or make changes to their voter registration via this Web Interface. This cost estimate includes the cost for developing the DIMS NET interface. These estimates do not include hosting services. Projected Cost of DIMS.NET Implementation

# DIMS.NET OLVR System For On-Line Voter Registration

Projected Cast of DIMS NET Implementation

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#### **Executive Summary**

The Basic Cost for creating a DIMS.net interface to an On-Line Voter Registration System is \$308,910. This work can be accomplished prior to the 2012 Presidential Primary Election.

An optional cost to design and develop the Web Interface is \$149,489. If another vendor or another agency develops the web site then DIMS will cooperate with the web site developer to insure the system works well with DIMS.net.

#### Create the Web Interface

DIMS has included an optional cost figure for developing the web site. DIMS has no issues if the web site is developed elsewhere and the reader can merely ignore our optional cost for this web site design and development.

#### Suggested Basics for the Web Site

Please see sample web site at the end of this document. Page titled Sample On-Line Voter Registration Web Page.

- 1. Prequalify registrants with citizenship, residency, and age questions
  - a. If DMV digital signatures are required then require the DMV identification number
- 2. Only upon prequalification then collect registrant data
  - a. name,
  - b. gender,
  - c. birth date,
  - d. identification number,
  - e. residence address,
  - f. mailing address,
  - g. party,
  - h. contact information,
  - i. ancillary survey questions,
  - j. signature,
  - k. date,
  - I. prior registration information

#### Additional Suggestions

- 1. DMV License Required to get the signature from DMV
  - a. How else will we collect the digital signature?
- 2. Make the web form look similar to the VRA
  - a. If an electronic signature is not available then the ink signature will have to be affixed to the paper form.
- 3. CASS Web Service Integration In-Lieu-Of sending the DIMS.NET Street Segments up to OLVR

#### July 6, 2011 CRAFT DIMS.NET ON-LINE VOTER REGISTRATION

- a. Instead of sending the DIMS.NET Address Library to the On-Line Voter Registration System and writing code around address library data, consider using CASS Web Services which require no software or data hosted by the state
- b. Standardized address information is returned to the web site
- c. County name is part of the data returned
- 4. Create unique id number and Timestamp
  - a. Sequentially numbered transactions will give us control
  - b. Timestamp may be useful to resolve disputes (or may become the cause of disputes)
- 5. Confirmation of Registration
  - a. A confirmation page that can be printed might be useful
- 6. Print the Registration information
  - a. But only if the DMV signature is unavailable
- 7. Hold the data in the database allowing DIMS.NET to extract the data as a web service
  - a. This method would require no exports or imports
  - b. The WSDL would incorporate all of the information harvested by the web site
  - c. If a sequential number is part of the design DIMS.NET could select all incoming registrants with an id number greater than "n" where "n" is the greatest number previously harvested

#### Transfer the On-Line Voter Registration Data to DIMS.NET

#### A web service is preferred but an export file is another good option

If the On-Line Voter Registration (OLVR) system included a web service for collecting the registrant data then the file transfers could be easily automated. A Web Service would eliminate the need for an export file. Web Services Security (WSS) can include any number of security features making this a flexible and secure method to transfer the data. A Web Services Design Language document (WSDL) would provide the information needed for programming the service requirements.

If a Web Service is not an option then an export file from the OLVR system is acceptable. The transfer file could be XML based for greatest flexibility or delimited for a more traditional approach. Either approach will require as many XML tags or delimited columns as is needed for the data harvested from the registrant. If the delimited transfer file option is selected then the file should contain a header row.

The export file will have as many rows as is needed for the number of registrants who submitted their OLVR application.

The signature image of the voter must come from the California Department of Motor Vehicles (DMV) or from a paper voter registration application.

#### Full and Incremental Transactional Data Transfers

Regardless of the transfer method above (WS, XML, delimited file), the web data export should feature a transactional update dump. In other words, we only want the most recent registrant records to appear in the file, and we don't want a full database dump each time there is a transfer.

The transactional update dump could require a baseline id number, and then export only those transactions where the id number is of greater than "n" (where n is the previous highest number exported).

#### Import the OLVR System Registrant Data into DIMS.NET

Importing the registrant data should be an on-demand event, or a schedulable event using the current menu and scheduler for DIMS.NET. In either case (on demand vs. scheduled) the system should process the incoming data, post the number of records processed, perform some basic validation, categorize the incoming records, preserve the raw data, and store the incoming records in a new table. The new table of data can be processed into production later downstream after the signature image data is collected and certain reports are run.

#### Import the data into a new table in DIMS.NET

- Categorize the incoming data into 8 broad categories When records come from the OLVR system the software should make basic decisions about the incoming records and begin to categorize the records.
  - Code 1 Out of county move
  - Code 2 In County Move
  - Code 3 Mailing Address Change
  - Code 4 Party Change
  - Code 5 Name Change
  - Code 6 Incoming (new registration)
  - Code 7 Exact Match
  - Code 8 No address library match
  - a. Registrant record matching

One of the first decisions about each record is whether or not the record is new. In other words, the software should decide if the name of the registrant already appears within DIMS.NET. Non-matching registrant data is considered to be a new registration. Matching registrant data is considered to be a reregistration.

The most positive match is based on the driver's license number. Softer matches are based on the voter's name, date of birth, and the SSN 4 digit number. Very soft matches should not be made leaving these soft matches to the user to decide.

- i. By exact driver's license number match
- ii. Name, DOB, SSN 4
  - 1. Probability ratings can be applied to anything less than a hard match

#### July 6, 2011 [DRAFT DIMS.NET ON-LINE VOTER REGISTRATION]

- 2. Soft matches can be categorized as Not Sure or can be probability rated matches
- b. Reregistration -- Change codes 1 through 5
  - i. Residence Address change –

This type of record will contain an apparent residence address change. The change of address might be so significant that the voter's county of record is changed, or it might be within the same county, and it could be as simple as an apartment number change. Every change of address will be categorized as precinctable or not.

- 1. Precinctable address
  - a. Out of County + Code 1
  - b. Within County Code 2
- ii, Mailing Address change Code 3

Certain OLVR records will merely be for mailing purposes. These records will be obvious because the name, residence, and other details will match exactly except for the mailing address.

- iii. Party change Code 4
- iv. Name change Code 5
- c. New registration code 6

New registrants are always missing the voter's signature and the system will need to hold these registrations in a pending status until the signature image arrives. In addition to the voter's signature image, some records will contain a precinct assignment based on the residence address while other records cannot be assigned a precinct.

- 1. Precinct the address
- 2. No address match
- d. No change Code 7

It is likely that some voters will register to vote on-line for no apparent reason. These duplicate registrations should be tracked but no action should take place against the voter table.

e. No precinct can be assigned --Code 8

Some voter records might come from the OLVR system that cannot be matched to the street address library in DIMS.NET. These records will require manual inspection and actions to make the address acceptable.

- f. Post the number of records processed
  - On demand will post the total number of records processed directly to the screen. The total number of records will be further broken down into counts by code number.
  - ii. If the scheduler is used then the counts will be reviewable in the batch job associated with each scheduled event.
- 2. Preserve the raw data to resolve issues downstream
  - a. Store the raw data for each OLVR registrant in a single column in the table to give users the ability to view the raw data in the event there are some discrepancies.

#### Collect the signature image data

There is no other known source for the signature image, and the digital image of the voter's signature must come from the California Motor Vehicle Administration. We plan to hold the voter's OLVR data until the signature is transferred.

Signature images can be transferred as a web service (preferred) or by an export from the DMV. If we included a web service for collecting the signature image data then the file transfers could be easily automated. A Web Service would eliminate the need for an export file. Web Services Security (WSS) can include any number of security features making this a flexible and secure method to transfer the data. A Web Services Design Language document (WSDL) would provide the information needed for the transfer of the image and the related service requirements.

If a Web Service is not an option then an export file from the DMV is acceptable. The transfer file could be a TIFF file with the DMV identification number as the name of the file. We could get periodic dumps of DMV signature images and marry these with the OLVR records at the time of the export.

We need to develop a way to handle widowed OLVR records without a signature image. We could make a request that the DMV provide the signature via the Web Service or export. However, prior to a OLVR record moving into the voter table the signature image of the voter must come from the California Motor Vehicle Administration (DMV) or from a paper voter registration application.

#### Process the Registrant Data

Periodically the OLVR data will move from the temporary voter table into the production voter table but only when:

- 1. A signature image has been married to the OLVR registrant data; and,
- 2. Only when the Categories are 1 through 6.
- 3. Code 7 is an exact match and currently there is no plan to update the voter's record.
- 4. Code 8 requires manual inspection and correction to make the OLVR record change to one of the six action categories.

#### Reports

- 1. Statistics
- 2. Detailed Reports by category
- 3. Aging report
- 4. A Missing Signature Report

#### Cost of Implementation

Assumptions

- The On-Line Voter Registration (OLVR) web interface may or may not be developed by DIMS at the option of the reader. If the web site is developed by another vendor or agency then DIMS will cooperate with the other vendor or agency.
- The OLVR web interface will be hosted on some system other than DIMS.NET and therefore not included in this estimate are costs for the Web Interface, Usability Studies, Web Hosting, Domain registration, CASS web services, server backend for the Web registration data, maintenance or troubleshooting of the Web interface, or bandwidth fees
- 3. OLVR registrant data will be available by Web Services, XML or Delimited File export
- 4. Incoming OLVR data will consist of the latest transactions and no duplicate transactions from a previous transfer will be included
- 5. The incoming data will be imported into a temporary voter table
- 6. The Web design or hosting contractor will provide a sandbox for developing and testing the data transfer
- The system will categorize the incoming data into eight categories including Code 1 Out of county move; Code 2 – In County Move; Code 3 – Mailing Address Change; Code 4 – Party Change; Code 5 – Name Change; Code 6 – Incoming (new registration); Code 7 – Exact Match; Code 8 – No address library match
- 8. A voter name matching process will have to be written from scratch
- 9. A residence address lookup will have to be written from scratch
- 10. A street alias system will have to be written from scratch
- 11. The incoming data import routine will have to be schedulable
- 12. A search screen will be needed to manage the temporary voter storage table
- 13. The OLVR web registrant's digital signature image will be supplied by the DMV and if not supplied by the DMV, then OLVR Registrants will have to print their registration form and sign the form, mailing the form to the LBE in the traditional way
- 14. The incoming signature image data import routine will have to be schedulable
- 15. The DMV will provide a sandbox for developing and testing the digital signature image data
- 16. Three reports will have to be provided to manage the process including: Statistics; Detailed Reports by category; Aging report; A Missing Signature Report
- 17. DIMS will perform unit, pre-UAT, pre-Mock Election Testing on the software, and the SBE will perform UAT and Mock Election.

# Base Cost Estimate

CATEGORY	ITTEM .		Senior Subject Matter Expect	💌 Applications Programmer	🕳 Advanced Technology Son or Application Developer	🕢 Senior Database Mauagensent Specialist	Tecting Specialist	the second s	HOURS	cq	51
		\$135	5135	\$175	\$175	\$175	\$135	\$135			
DESIGN	Project Plan	40	0	0	0	0	0	4			5,940.00
	Full Systems Design	4	60	0	20	0	0	8			13,220.00
Balance you down to the damage of the	DESIGN	44	60	0	20	0	0	12	136	\$	19,160.00
DATA TRANSFER	Transactional Data Acquisition	2	0	40	4	0	40	20	106	\$	16,070.00
	TRANSFER	2	0	40	4	0	40	20	106	\$	16,070.00
PRIDCESS TO TEMP	Code 1-Out of county move	2,4	0	48	4.8	0	48	24	127.2	\$	19,284.00
	Code 2 - In County Move	0.4	0	8	0.8	0	8	4	21.2	\$	3,214.00
	Code 3 – Mailing Address Change	0.8	0	16	1.6	Û	16	8	42.4	\$	6,428.00
	Code 4 Party Change	0.8	0	16	1.6	0	16	8	42.4	S	6,428.00
	Code 5 – Name Change	0.8	0	16	1.6	0	16	8	42.4	\$	6,428.00
	Code 6 - Incoming (new registration)	1.2	0	24	2.4	0	24	12	63.6	S	9,642.00
	Code 7 – Exact Match	1.8	0	36	3.6	0	36	18	95.4	\$	14,463.00
	Code 8 - No address library match	1.2	Û	24	2.4	0	24	12	63.6	\$	9,642.00
	Scheduler	0.8	0	16	1.6	0	16	8	42.4		6,428.00
	PROCESS	10.2	0	204	20.4	0	204	102	540.6	\$	81,957.00
SIGNATURES	Request Signature Images	2	0	40	4	0	40	20	106	\$	16,070.00
	Collect Signature images	3	0	60	6	0	50	30	159	\$	24,105.00
	Assign Signature Images	4	0	80	8	0	80	40			32,140.00
	SIGNATURES	9	0	180	18	Ŭ	180	90	477	\$	72,315.00
PROCESS TO PRODUCTION	Insert	0.8	0	16	1.6	0	16	8	42.4	\$	6,428.00
	Update	0.8	0	16	3.6	0	16	8	42.4		
mention and a second	TOPRODUCTION	1.6	0	32	3.2	0	32	15		-	12,856.00
REPORTS	1. Statistics	2	0	40	4	0	40	20	106		16.070.00
	2. Detailed Reports by category	2	0	40	4	0	40	20	106		16,070.00
	3. Aging report	2	Û	40	4	0	40	20			16,070.00
	4. Missing Signature report	2	0	40	4	0	40	20			16.070.00
5-14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	REPORTS	8	0	160	16	0	160	80		-	64,280.00
IMPLEMENT	Rolfout	5.261	0	105.2	10.52	0	105.2				42,272.00
	IMPLEMENT	5.261	0	105.2	10.52	0	105.2	52.6	the second se	-	42,272.00
TOTAL	and the second sec	80.06	60	721.2	92.12	0	721.2	373	2047.232	\$3	308,910.00

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		Project Manager	Sonior Subject Matter Expert	Applications Programmer	Advanced Technology Senior Application Developor	Senior Database Management Specialist	Testing Specialist	Documentation Specialist			
CATEGORY	• ITEM	\$ 70	\$105	563	\$70	\$125	-		HOURS	60	IST -
DESIGN	Project Plan	40	0 2 105	000	57u 0			\$40			2 054 22
DEDIGIN	Full Systems Design	40	60	0	20	0	0		44 92	•	2,956.73
	DESIGN	44	60	0	20	0	0	~ ~ ~			11,226.92
Web User Interface	Creates the pages to collect the voter	4	0	BO	2	0	80		the second se	6.22	12,464,42
Web Oser Interface	Data Validation	10	0	200	20	0		100			31,161.06
	Web Service Data Access Layer	6	0	120	12	ō	120				18,696.63
	Create Oracle DB	1.2	õ	24	2.4	o	24				3,739.33
	Create functions to log, save, get	6	0	120	12	ő	120	-			18,696.63
	Integrate with CASS vendor	2.4	0	48	4.8	0	48		127.2		
	DB Factor	4	Ő	80		0 0	80				12,464.42
	Sandbox	6	0	120	12	0	120				18,696.63
	Web User interface	35.6	0	pr	71.2	0		356			110,933.37
Annual Costs	CASS - 250,000 requests/year	0	0	0	0	0	0	0	0		2,400.00
	Database Maintenance	8	đ	160	16	0	150	80			14,928.85
	Annual Costs	8	ō	160	16	0	160	80			27,328.85
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# Option 1 - Web Site Design and Development

# Sample On-Line Voter Registration Web Page

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#### **Technical Proposal**

#### Catalog of Federal Domestic Assistance Number: 12.217 BAA Number: H98210-BAA-11-0001

**Online Voter Registration for California's UOCAVA Voters** 

#### ATTACHMENT 2 SubContract

**DFM Associates:** 

Thomas G. Diebolt, President 10 Chrysler Irvine, CA 92618 (949)859-8700

**Cost Proposal Follows.** 

#### Budgel Report as of Thu 5/26/11 CalVoler OVR mpp

D	Task Name	Fixed Cost	Fixed Cost Accival	Total Cost	Baseline	Variance	Actual	Remaining
	Project Planning	\$0.00	Prototod	39,576.00	\$0.00	\$9,576.00	\$0.60	\$9.576.00
2	Analysis & Destan	20.02 26.02	Protaled	\$33,002.35	\$0 00	\$33,002,35	\$0.00	\$33.002.35
3	Code	\$8.00	Prorated	367,360.00	\$0.00	\$67,380.00	\$0.00	\$67,360.00
4	Test	\$0.00	Profeted	\$36,960,00	50.00	\$85,950.00	30.00	\$86,960,00
5	Documentation	\$0.00	Provided	\$14 380,00	\$0.00	\$14,580.00	\$0.00	\$14,380.00
5	Training materiols	\$0.00	Prorated	\$13,220.00	\$0.00	\$13 220.00	\$0.00	\$13,220.00
7	Training Planning	\$0.00	Protated	\$7,332.00	\$0.00	\$7,332.00	\$0.00	57,332.60
8	Soltware Rollout Planning	\$0.00	Prototed	\$7,380.00	\$0.00	\$7,380.00	\$8.00	\$7,380.00
3	Software Rollout	\$0.00	Prorated	\$31,200.00	\$6.00	\$31,200.00	\$0.00	\$31,200.00
10	Training Rollord	\$0,00	Prorated	\$24,640.00	\$0.00	\$24 640.00	30.00	\$24,540.00
11	Project Wrap-up	\$0.00	Provated	\$4,320.00	\$0.00	\$4,320.00	\$0.00	\$4,323,60
		\$0.00		\$299,370.35	\$0.00	\$299,370.35	\$0.00	\$299,370.35

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#### **Technical Proposal**

#### Catalog of Federal Domestic Assistance Number: 12.217 BAA Number: H98210-BAA-11-0001

Online Voter Registration for California's UOCAVA Voters

#### ATTACHMENT 3 SubContract

Votec:

Tom Nolan, Senior Software Engineer 16870 West Bernardo Drive, Suite 340 San Diego, CA 92127 (800)348-6832

Cost Proposal Follows.

<u>CALIFORNIA FVAP DEVELOPMENT - PR</u>	OJECTED COSTS	1
TASK DESCRIPTION	HOURS	COST
Design and test WSDL interface with SOS system (6-days)	48,	\$10,080.00
Modify existing batch voter process for DMV sigs and images (5-days)	40	\$8,400.00
Deploy and test system updates (2-days)	16	\$3,360.00
Training (2.5-days)	20	\$4,200.00
Report design (5-days)	40	\$8,400.00
Travel and incidentals	n/a	\$3,000.00
On-going maintenance - 1 hour/wk for 78 wks. (18 months)	78	\$16,380.00
***	Total	\$53,820.00
(Programming costs computed at \$210/hr.)		:

# Technical Proposal

Catalog of Federal D	omestic Assistance (CFDA) Number: 12.217					
BAA Number:	H98210-BAA-11-0001 (formerly HQ0034-FVAP-11-BAA-0001)					
Title of Proposal:	Innovative, Secure, and Sustainable UOCAVA Balloting Solutions that					
	Boost Voter Access, Participation & Confidence					
DUNs Number:	(b)(4)					
<u>Applicant:</u>	Supervisor of Elections, Orange County, Florida					
	In an informal consortium with 3 additional Florida counties					
Partner Contractor:	Everyone Counts, Inc.					
Technical Contact:	Lymari Maldonado					
	Orange County Supervisor of Elections					
	119 West Kaley Street, Orlando 32806-3938					
	P.O. Box 562001, Orlando FL 32856-2001					
	(407) 254-6548					
Admin. Contact:	Mr. Bill Cowles					
	Supervisor of Elections					
	Orange County Supervisor of Elections					
	119 West Kaley Street, Orlando 32806-3938					
	P.O. Box 562001, Orlando FL 32856-2001					
	(407) 254-6500					

Period of Performance: Date of Award to December 31, 2016

Technical Approach and Justification (8 page limit)	page 3
Executive Summary	page 3
Goals and Objectives	pages 4- 10
Schedule and Milestones (2 page limit)	page 11
Reports (not incl in page limit)	pages 12- 20
Management Approach (8 page limit)	pages 21- 26
Current and Pending Project Proposal Submissions	page 27
Qualifications (not incl in page limitations)	pages 27- 31
Budget Proposal	pages 31-33

#### **Technical Approach and Justification**

This grant application is being submitted by a group of Florida counties. These counties consist of Orange, Broward, Lee, and St. Lucie. This consortium of counties will hereafter be referred to as the "E1C/Florida Consortium." The deployment timeframe of various eLect Platform modules described may vary based on the counties' elections schedules, workload considerations, and other management goals and variables.

#### **Executive Summary**

The E1C/Florida Consortium submits this grant application to investigate, evaluate, and field test methods to improve our overall ability to support our UOCAVA voters. The state of Florida and E1C/Florida Consortium are highly committed to ensuring UOCAVA voters are given every opportunity to participate in our democratic process, and have a track record of high quality service and continuous improvements to that process.

IN THE PAST TEN YEARS, NO OTHER STATE HAS WITNESSED, ADOPTED, FUNDED, AND IMPLEMENTED NEW AND/OR DIFFERENT ELECTION MANAGEMENT TOOLS AND APPROACHES AS HAS FLORIDA AND THE SUPERVISOR OF ELECTIONS (HEREAFTER REFERRED TO AS SOE) COMMUNITY ENTRUSTED TO SAFEGUARD ELECTIONS IN FLORIDA. Despite these across-the-board improvements and Florida's legacy of high quality service to its sizable UOCAVA voter population, much room remains for the enhancement of military and overseas voters' ability to access, vote, and return ballots in a timely manner.

A measurable incentive and impetus for uniformed personnel to register as Florida residents is the absence of state income tax assessment in Florida. In fact, approximately 13% of all UOCAVA voters hold current registration status somewhere in Florida. Combining those variables with the presence of military bases throughout the state, it is logical to assert that Florida's already populous UOCAVA population will likely continue to swell.

At the crux of absentee voter management is the historical reliance on delivery (USPS, private courier, military, diplomatic, and foreign) of physical documentation (ballots and other election materials<sup>1</sup>). With many UOCAVA voters serving in highly inaccessible locations e.g. forward operating bases in Afghanistan, months at sea, etc.), round-trip transit time measured in weeks is the rule rather than the exception. This situation is further exacerbated if complications requiring election officials' remedy arise with the voter's ballot, often requiring a second round-trip transit of materials – almost guaranteeing that the voter's vote will not be counted.

Furthermore, Florida's late primary election means that the SOE community must manage the nation's fastest turnaround between state primary and the November general election dates.

<sup>&</sup>lt;sup>1</sup> Includes voter registration material, affirmations/oaths, waiver of privacy form, ballots, envelopes requiring signature, and other forms as laws and regulations have evolved over time

Fortunately, alternatives exist. The omnipresent nature of the Internet provides for use of technology to provide expedited and real-time support for the UOCAVA voter. Even in areas where postal service is difficult or even non-existent, Internet access is generally available. Technology presents a considerable opportunity for significant progress in the ability to provide timely support to UOCAVA voters, increasing their participation and confidence in elections, and, more importantly, the success rate of those that do participate.

To this end, the E1C/Florida Consortium welcomes the opportunity to adopt and deploy technological solutions to overcome the barriers to full and timely participation by the UOCAVA community and provide better tools to the voter, improving the voter experience.

To assist us in this effort, the E1C/Florida Consortium intends to engage the services of Everyone Counts. Everyone Counts is a US-based firm in operation since 1997, solely dedicated to the highly accessible electronic balloting processes. Everyone Counts also boasts one of the best 2010 election cycle track records with respect to the previous round of FVAP grants.

#### Goals and Objectives<sup>2</sup>

The E1C/Florida Consortium intend to deploy and sustain a comprehensive solution (eLect Today and eLect Transcriber) to address the above cited issues, taking advantage of existing and emerging technologies to provide each voter a rich and voter-friendly voting experience. The E1C/Florida Consortium proposes to enable the UOCAVA voter with the ability to access their ballot online using any web-enabled computer via the computer's browser. In terms of security, all communications between the voter's browser and the eLect Today server will be secured using a minimum of 256-bit encryption. The voter will have access to the ballot 24x7 for the duration of the voting access period anywhere there is Internet access.

After accessing their ballot, the voter is provided with several options for voting and returning the ballot.

#### **Blank Paper Ballot Delivery**

- 1. The voter authenticates with secure ballot access interface
- 2. Voter is provided with their correct ballot style
- 3. Ballot is downloaded, along with associated oath, envelope template, and return instructions, as required by Florida Law
- 4. Voter marks and completes ballot by hand
- 5. Voter signs oath and exterior of return envelope
- 6. Voter returns ballot package by one of the following methods, as approved by Florida Law.
  - a. Postal Service or other document courier
  - b. FAX
  - c. Scanned and Electronically Mailed PDF pending the implementation of new Florida Rule 1S-2.030

<sup>&</sup>lt;sup>7</sup> A summary of eLect features and benefits specific to the (8) EASE grant evaluation criteria at the end of the goals and objectives section

eLect Today provides highly available access to voters regardless of where they reside. The primary EASE grant-related benefits of eLect Today include:

- faster ballot availability for voters;
- providing more time for return of voted ballots;
- ensuring all necessary forms are included with the web-enabled ballot;
- enabling voters to practice voting prior to accessing the "live" ballot.

Elect Today also supports voter-friendly features including customized landing pages, instructions to voters, links to designated resource web sites, multilingual formats, prepopulated voter forms, and WAI-ARIA Landmark development methodology to aid navigation of eLect Today web pages for sight-challenged voters using screen reader assistive technology.

#### **Online Ballot Marking**

- 1. The voter authenticates with secure ballot access interface
- 2. Voter is provided with their correct ballot style
- 3. Voter marks and completes ballot online (choices displayed and indicated on-screen)
- 4. Voter choices are also redundantly encoded on the ballot as a digital, 2D bar code
- 5. Voter signs oath and exterior of return envelope
- 6. Voter returns ballot package by one of the following methods, as approved by Florida Law.
  - a. Postal Service or other document courier
  - b. FAX
  - c. Scanned and Electronically Mailed PDF pending the implementation of new Florida Rule 1S-2.030

For EASE grant evaluation purposes, online ballot marking functionality is easily replicated in other jurisdictions that deploy eLect Today. It also eliminates:

- the need for the voter to possess a marking device,
- the requirement for the voter to possess the ability to grip and aim a voting device, and
- over-voting.

Online ballot marking also requires the voter to view a summary page at the completion of the ballot marking event. This process encourages a complete review of the ballot, remedy of undervoted contests, and also increases voter confidence in that a failsafe 2<sup>nd</sup> chance voting opportunity is presented to each voter.

#### **Automated Ballot Duplication**

To date, Florida's SOE community has manually duplicated voted/returned UOCAVA paper ballots so they can be scanned and counted by tabulation systems. eLect Transcriber technology imprints a 2D barcode on voted ballots generated by eLect Today system. The bar code contains the ballot style, precinct, and the voter's preferences. This bar code provides an effective means of duplicating a returned ballot returned to a tabulation-ready ballot produced by a ballot on demand system. Without this, E1C/Florida Consortium will eventually be overwhelmed by the requirement of manually duplicating thousands of additional ballots voted and returned if our goals for increased participation by UOCAVA voters are achieved. The bar code contains no personal identifying information. Owners of some smart phones with the appropriate app can inspect the bar code to verify personal identifying information is not contained in the bar code.

Over time and subject to overcoming legislative, test & approval, and technological challenges, the E1C/Florida Consortium will pursue alternative methods to support efficient integration of voted UOCAVA paper ballots. The most common manner would be to skip duplication of the original paper ballot into a scannable document, and instead directly input scanned bar code data into a tested and approved EMS. This would avoid the use of duplicated paper ballots when used with a 2D bar code, further increasing the efficiency of the process.

For EASE grant evaluation purposes, Elect Transcriber:

- introduces efficiencies that allow the SOE community to save time and staff and materials expenses in the ballot remaking process, and
- safeguards voter privacy and guarantee accuracy in the transfer of voter preferences from original ballots to scan-ready ballots;
- is compatible with a cross section of leading ballot-on-demand (BOD) software; and
- functions with existing county-based BOD hardware (Okidata 9600/9650 duplex printers), reinforcing efficiencies and investment in hardware already made by the counties.

## **Return Envelope Tracking**

The return envelope template contains a bar code with the voter's unique ID and USPS postage paid indicia. This bar code enables identification and flagging of the voter when the incoming ballot envelope is received and processed, the voter in the voter registration system as having returned the ballot.

For EASE grant evaluation purposes, should the voter choose to utilize this envelope template, faster and more efficient ballot return verification processes are supported.

## Accessibility

The ballot delivery system is required to be both section 508 (ADA) and section 203 (alternative languages) compliant. An additional benefit of the eLect Today referenced herein is it has been approved for use with the ES&S Unity EMS by the Florida Division of Elections to serve the absentee voting community at-large, including voters with disabilities.

## Integration with existing EMS Systems

The online balloting system (eLect Today) is tested and approved by the Florida Division of Elections with existing county-based ES&S Unity EMS. eLect Today/Dominion Voting Systems GEMS test & approval is in process. This reduces the complexity, time requirements, and potential errors of transferring ballot definition information to the eLect Today web-enabled balloting system.

#### **Voter Authentication**

To validate the authentication of voters, and to ensure that all voters receive the correct ballot style, each voter will be required to log on using unique credentials. Authentication will be accomplished by the voter entering data elements into a one or two stage authentication process.

In the event that the voter is unable to be located in the voter registration database, they will be asked for their address to determine the appropriate ballot style. If the voter does not know their registered address, or the provided address is unable to be located, the voter can be directed toward an FWAB, or contact their SOE, as safeguards against disenfranchisement.

E1C/Florida Consortium will provide the vendor, Everyone Counts, with an extract of each county's voter registration database. Initially the proposed format is a flat file export that will be periodically re-exported for the purposes of voter history update. As this research project progresses, we will investigate and if appropriate implement more real-time implementation of a web services-based integration.

#### Near real-time VRDB Authentication

As a part of our ongoing EASE/UOCAVA research, voters who are not found in the county's database will be attempted to be located utilizing a direct link to Florida State's Voter Registration Data Base (VRDB). This will provide maximum flexibility for voters that believe they are registered in a particular participating county when they are actually registered in different county. Once located within the Florida State VRDB, the voter can then be redirected to the jurisdiction in which they are registered. Availability of this enhancement is tentatively scheduled for the second ½ of the 2012 calendar year.

#### Integration with existing online systems

An already-enabled ballot tracking system provides UOCAVA voters with the ability to track their ballot at three different stages of their ballots life – ballot package mailed to the voter, returned ballot package received, and that the ballot package has been signature verified.

#### Signature Challenge

In the past, most of the emphasis by FVAP and others has been on improving the timeliness of voter registration, ballot delivery, and ballot return processes. Another area where disenfranchisement is common is ballot validity challenges (e.g. voter forgets to sign the envelope oath or privacy waiver, the signature doesn't match the signature on file, etc.).

However, the same transit time challenges that exist for ballot delivery and return also currently apply for attempts to remedy challenges based on omissions and inconsistencies. Although the exact method of implementing this capability has not been determined, the E1C/Florida Consortium will work with the vendor to develop a process to provide timely assistance to UOCAVA voters with such challenges.

## Voter Outreach

E1C/Florida Consortium desires to improve our ability to provide outreach to our UOCAVA community. E1C/Florida Consortium intends to use tools and services provided by Everyone

Counts to facilitate messaging to UOCAVA voters. This messaging will allow E1C/Florida Consortium to be proactive in communicating with voters.

#### Mobile Kiosks

Our vendor has a kiosk solution (eLect Mobile) in development and testing that allows a means of setting up a "voting center" type environment that could be used in areas where there is a concentration of voters (such as a military hospital) or where a unit may be deployed and unavailable during the election period (such as a submarine). While not part of this grant application, the E1C/Florida Consortium has available to it this additional channel supported by the eLect Platform for serving another segment of UOCAVA voters in the near future.

#### **Help Systems**

Although the exact method of implementation remains to be determined, we will implement a robust suite of help features using the resources of both the vendor and the E1C/Florida Consortium. This would include:

- 24x7 email and telephone support during the entire voting period
- Online chat support
- Context-specific help and FAQ's

It is expected that the vendor would manage technical issues related to the site as well as afterhour calls and E1C/Florida Consortium would field business hour inquiries for election-related items.

To provide a means for improving our implementation and to provide FVAP feedback on research completed, eLect Today supports a client-specified and optional post-voting survey for voters to complete.

#### **Business Continuity**

To ensure that our UOCAVA community is well served by this system, the vendor will be required to have a robust business continuity plan that will ensure that the system remains available in the event of failures of primary servers and communications. This includes proper backups of systems and data, alternate sites in the event of failure of the primary site, and redundant hardware and communications.

In addition, a highly secure (physical and technological) environment will be required to ensure the integrity of the voting process. The vendor will be required to have sufficient capacity to survive high traffic when all jurisdictions have elections at the same time.

#### Security

All communications between the voters' browser and the server will be secured using a minimum of 256-bit encryption. If local legislation enables voted ballot delivery via email, the email shall be sent encrypted using a minimum of 256-bit encryption.

The ballot delivery system shall not retain any record of the voters' selections anywhere on the system to include transaction logs, cache, etc.

Vendor is required to maintain a physically secure facility using the most secure industry standards for threats against communications and malicious file threats (e.g. highly secure firewalls, procedures to protect against denial of service attack, anti-virus and anti-spy ware applications, etc.). The copy of the extract of the county's voter registration system will be used for the sole purpose of authenticating voters and will protected from dissemination to anyone (including internal vendor staff).

## eLect Today and eLect Transcriber Features & Benefits Summary

## Significance

- Addresses all phases voter registration, ballot delivery, preference indication, ballot return, ballot intake, ballot tracking, and challenges after ballot return
- Enhances FPCA capability
- Links to county and/or state resources such (e.g. multilingual help)
- Links to county or state ballot tracking system
- Provides ability for voter to mark ballot preferences
- Provides (future) option for the voter to have the ballot delivery system email the ballot on their behalf using encryption

## Sustainable

- Extension to different voter segments, especially absentee voters, will dramatically drive down expenses related to postage and 3<sup>rd</sup> party ballot package assembly contractors
- Augmentation of funds from the counties of leftover HHS/HAVA funding
- Projected savings realized from implementation of the eLect Platform will be sufficient to pay for ongoing costs after one-time implementation costs
- Relatively low annual fees
- As a hosted solution, will not significantly increase load of elections staff

# Impact

- <u>The E1C/Florida Consortium universe of UOCAVA voters = approximately 25,190</u>
- The E1C/Florida Consortium universe of voters claiming disabilities = approximately 53,990; there is a groundswell of support throughout the Florida SOE community to extend web-enabled balloting as an option for voters with disabilities, as well as all absentee voters
- Based on cost/benefit analysis, The E1C/Florida Consortium has a stated objective to deploy the eLect Today system for elections that do not elect Federal candidates
- Projection that UOCAVA voter participation will at least double with the use of this system and the increased accessibility inherent in the implementation of this system

# Strategic Approach

- Overall comprehensive, multi-channel solution that allows the voter a choice of ways to receive and return their ballot
- Implementation of post-voting surveys to gather voter feedback and introduce improvements based on voter comments and suggestions

- Use of the Internet with real-time capability to overcome inherent issues with access and mobility of ballots and other materials via a constrained postal or other document delivery system
- Provides access to ballots 24x7 anywhere there is the capability to connect to the Internet.
- Testing of several new concepts (e.g. CAC card authentication and encrypted email return of ballots) that could provide better integrity of the process

#### Innovation

- Automated ballot replication; that is, the ability to translate ballots not compliant with tabulation equipment to tabulation-ready using 2D bar-code
- (Future when Florida law permits) Option for voter to upload signature image and have the eLect Platform email ballot on behalf of the voter using encrypted email
- Proposed research on use of CAC card for authentication
- Mobile kiosks for future specialized needs (eLect Mobile not part of this proposal)

#### Scalability

- The design principals proposed by the E1C/Florida Consortium, along with the vendor Everyone Counts has taken into account the challenges associated with scaling to accommodate additional voters and functionality. Specifically, the following scaling scenarios have been accommodated as a part of the design:
  - Additional voters demand
  - Additional upgrades to initial features
- Everyone Counts has conducted similar eLect Platform web-enabled elections in a number of jurisdictions without any scalability issues, most recently:
  - o Australia March 2011 50,000 Voters
  - Honolulu May 2011 18,000 Voters

## Collaborative

- The Orange Accessibility Task Force and the Orange County SOE has collaborated with Everyone Counts in the development of this concept.
- The E1C/Florida Consortium continues to recruit interested Florida Counties, which will serve additional UOCAVA voters and enable greater cost sharing of eLect licensing
- The design of our proposed implementation is such that it should be usable by any other jurisdiction that does not have more restrictive statues

#### Schedule and Milestones

At date of grant submission, proposed milestones for this project shall consist of the following for each election during the EASE grant time period:

- **Kickoff Meeting** the first meeting after the contract has been awarded, during which team members are introduced, stakeholders documented, and key election project properties defined
- Data Delivery Consortium Counties provide vendor with data
- Election Logic and Accuracy Testing the completion of client User Acceptance Testing, after which the election is locked for voters
- Election Go Live the first day when voters can vote in the online election
- Election Close the final day of voting in the election
- **Reporting** upon close of the election, the research data will be aggregated and the final report will be written. As stated in the reporting section, reports are available on-demand, at any time during the election to authorized individuals

The following is a sample Gantt chart for one election.

	FVAP - Proposed Sch	scule		
G	Tesk Nøme	Start	Finish	Sid Quarter 2st Quarter 3ul Sen Nov Jan
4	Caler Legend			
2	Curren Youk	T	ALC: NO.	
4	Project Platte Degite	50502-50555		
4	Metore			
5	2011 General Election	8/1/13	1/51/12	Ç=sautantantantantantantantantan
é	Contract Awarded	8/1/13	3/1/11	Q- <sub>1</sub> 8/1
2	Initiation	8/8/11	\$/18/31	9-19-
8	Kirkoff Meeting	8/4/11	8/8/11	Client, Everyone Counts
ę	, ob Specificauon Calis	8/9/21	8/9/11	Client, Everyone Counts
10	Implementation Plan	8/30/11	8/16/11	👗 Everyone Counts
11	Project Plan	3/17/15	8/18/11	Everyone Counts
12		8/29/11	9/5/11	1 ww
13	Cilesit Delivert Earth Eallot Data	8/29/11	8/29/11	8/29
14	Signt Delivers luitied Votes Registration Data	8/25/21	1/29/33	8/29
15	Orafi Dection Built	8/29/11	9/2/13	Everyone Counts
16	Dreft Voter Registration Crecentials Loaded	9/5/11	9/5/11	Keveryone Counts
17	Test : CORDER TO DECEMBER TO D	9/6/11	9/21/11	. u-u
18	Everyone Counts Testing and Review	9/6/:1	9/13/11	Everyone Counts
19	Voter Registration Database to Everyone Counts	\$765/11	9/13/11	♦ 9/13
20	"Client Testing and Review	9/14/11	9/20/11	🖥 Client
21	Election Logic and Accuracy Testing	9/21/11	9/21/11	Cfient, Everyone Counts
22	Election Locked for Voters	9/21/11	9/21/11	\$ 9/21
23	Election	9/24/11	13/8/11	
24	Election Goes Live	9/24/11	9/24/11	♦ 9/24
25	Schedulers Voter Registration Ontabase Releases	0/24/11	11/6/11	Client [10%]
26	Scheduled Voter Registration Database Updates	9/24/13	11/8/13	Everyone Counti(50
27	Election Maintenance and Reporting	9/24/11	11/8/11	Everyone County[50
28	Election Closes - Dood of Control Cont	11/8/11	11/8/11	<b>♦</b> _21/6
29	Election Results Tallied and Reported to Client	13/8/11	11/8/11	• <b>1</b> 1/8
30	Repart	11/8/11	11/15/11	e +
ŝł	Final Report, including Measurement against Strategic Goals and Lesson's Learned	11/8/11	11/15/11	Everyone Counts[5
32	Past Election Support	11/8/11	1/31/12	· · · · · · · · · · · · · · · · · · ·
33	Election Remains Functional and Available in case of recounts of audits	11/8/11	1/31/12	tve
_	everyone Counts Inc. Co	-Adapted		Page .

Example- Gantt Chart for a single election with 45 day voting period

## Reports

Comprehensive reporting will be implemented to monitor and provide analytical tools for all portions of the election management process. This is facilitated by having reports in the following areas:

- On-Demand Reporting Interface
- Logging of Systems Activity (for further analysis)
  - Post-Election Analysis of Activity
- Voter Surveys
- Customer Service and Help Desk Log Reports and Analysis
- Project Management Milestone Reporting
- Post-election reports
- UOCAVA Voter available tracking interface

## **On-Demand Reporting Interface**

An on-demand reporting interface will provide real-time access to information regarding the activity of all running elections

## **Reports Provided**

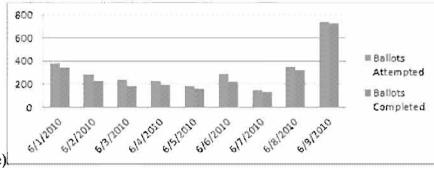
- Voter Activity: The Voter Activity Report provides insight into system use. This includes:
  - Voting Activity / Hour
  - Voting Activity / Day
  - Total Voting Activity (within date range)
- Voter Participation: This report provides
  - Turnout by District
  - Turnout by Channel (where available)
- Voter Locations: Report showing the source location of voting activity. Reports are based on the IP address, and
  - Source City, i.e.: Los Angeles, United States
  - Source Domain, *i.e.: .mil*, .gov
     Where available via PTR DNS Records

# **On-demand Reporting Interface**

	yonecounts*	Se	cure Cu	istomer	Portal
Dashboard Ele	ection Management Report	ting <u>Settings</u>	1	ogged in as Lori.	Steele <u>Logo</u>
Reports	Reports > Voter Parti	cipation			
Voter Participation Voter Activity	General Part	ticipation		By Channe	el
Requests for bailots Attempted bailots Completed bailots		III Have Voted, 37% Have Not Voted, 63%			<ul> <li>Woters by Web, 74%</li> <li>Voters by Phone, 26%</li> </ul>
Voter iccations	District Name	Eiglide Voters	Votes Cart (Phone)	Voles Cast (We	sb)/Vates Cert T
Dates system accessed	Chula Vista	58,203	1423 (15%)	38,504 (85%)	38202 (61%)
	Galemont	58,929	1542 (15%)	48,203 (88%)	48203 (71%)
Dates ballots completed	CIBROTILS IC				

(Example)

# **Ballots Attempted, Completed**



#### (Example)

Typically, the graph spikes around the time of notification emails and reminders.

# Voter Location Report (Example)

Country	City	Date	Logins
United States	New York	6/1/2010	377
United States	Los Angeles	6/1/2010	281

Canada	Toronto	6/1/2010	234
Great Britain	London	6/1/2010	228
France	Paris	6/1/2010	182
Germany	Berlin	6/1/2010	288
Canada	Ontario	6/1/2010	182
Japan	Tokyo	6/1/2010	178
		Total	2862

# Data Logging

Everyone Counts uses event logs to archive all administrative and user access within the voting system. No logged data will ever associate a voter with the preferences they have marked on any ballot, ensuring voter privacy.

The following information is logged:

Access Period	This field refers to the period of the election and is customizable. Typically each election has three primary states: Content Review, L&A, and Live. All summary reports provided shall utilize data acquired during the "Live" period				
Time (TimeZone)	This field is the server Date/Time stamp when the event occurred				
Time (System Time)	This field is the Coordinated Universal Time, UTC, represented in POSIX Time				
SessionID	This field is a browser session hash and is the unique identifier for all voters accessing the system				
Event	<ul> <li>This field represents the variety of events logged during each election:</li> <li>User Login</li> <li>User Logout</li> <li>Ballot Accessed</li> <li>Ballot Printed</li> <li>Ballot Submitted (where available)</li> </ul>				

This field is either the standard four-part IP address or optionally a hash of the IP Address, intended to ensure voter privacy IP addresses can be used to identify the city of the user that is voting from

# Data Sample of Logs (Example)

Access Period	Time (Canada/ Pacific)	Time (System Seconds)	SessionID	IP Address	Event
Live	19-04- 2010 09:06:29	1271693189	817e203e135bad14 dc1cbde203bed87f	207.229.6.250	User login
Live	19-04- 2010 09:09:00	1271693340	3200d91b5f9f7752 6db200a130762ad3	68.147.223.212	User login
Live	19-04- 2010 09:09:46	1271693386	a41b590c0dbf2c31 1acc28fcc72b871d	208.97.113.34	User login
Live	19-04- 2010 09:12:19	1271693539	112819fe8deb4f19f b056d1aa7c790e4	203.18.176.243	User login
Live	19-04- 2010 09:15:05	1271693705	4c00ed4ca30c952f8 8e20acdf54de867	208,80,96,57	User login
Live	19-04- 2010 09:15:16	1271693716	b742cfff2b14d9eb2 394352e25dca8cf	74,198,12,3	User login
Live	19-04- 2010 09:17:15	1271693835	f76ee37d032ed935a 598de4d426f365f	64.39.171.41	User login
Live	19-04-	1271693922	c438782c27a8297c	199.212.48.2	User

Access Period	Time (Canada/ Pacific)	Time (System Seconds)	SessionID	IP Address	Event
	2010 09:18:42		22df6d4e5269dff7		login
Live	19-04- 2010 09:19:57	1271693997	7eddb3a3633a02ce 652c2dbe2119e80d	68.179.94.250	User login
Live	19-04- 2010 09:21:16	1271694076	b27d56e7c48a4059 ec975dbf1a400eaf	96.49.111.135	User login

The data above represents the first 10 log-ins during a Live Access Period opening at 9am.

## Data Analysis

Upon the conclusion of all elections, data will be analyzed to measure the effectiveness of each election through various phases of the ballot access process (e.g. voter registration, ballot access, ballot return, etc.)

# **FPCA Signup Activity**

Reports will be provided to Election Administrators showing signup activity and adoption rate of online-based FPCA sign ups.

# **UOCAVA Voter-Accessible Tracking of Ballot**

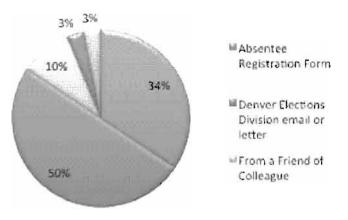
Each voter has the ability to track the progress of their ballot. Most of this functionality currently exists via existing local VR Systems product functionality. -eLect functionality will support ballot tracking via issuance to the voter of a distinct receipt code used to access unique ballot status. Specifically:

- Ballot Printed
- Ballot Submitted
- Ballot In-Transit
- Ballot Received
- Ballot Counted

## Satisfaction Feedback Loops and Voter Satisfaction Surveys

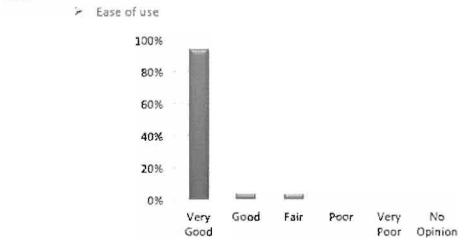
As a part of each election, voters are asked to complete a voluntary customer survey. These questions are collated and a report generated for each. Below are example questions with associated

## responses:



How did you learn about the online ballot access program?

Please rate the following features based on your experience using the online ballot marking tool:



# Additionally, free-form questions will be asked, and all responses collated for analysis.

Please provide any additional comments on the online ballot marking tool below:

- This is definitely a great system. Thank you.
- Seems like a great improvement over the previous mail in ballots. I have received mail in ballots in the past after the election date. This is an improvement, though I still received the mail in ballot by regular mail along with instructions on how to vote online. Seems like it might have been faster/cheaper/easier to receive electronic notification rather than regular mail.
- This is by far the easiest way for me to vote as an absentee voter. Fax, email, and mail ballots are all possible but very difficult to complete. This online voting process is easy, keep using and improving it!
- This (online voting) is great. I feel like my vote will be counted without relying on 2 postal systems. Plus it cuts down on paper, which is always a plus.
- None
- I appreciate the ability to still cast my ballot as an American temporarily living overseas. I always felt my mail in ballot never was counted & worried it would not make it in time. I feel my vote will be counted on the day of the election using this method.
- Much more convenient than faxing.
- get out the Online Vote! No one knew this was possible until got my piece of paper and posted it on Facebook. Thank you Amanda Hill for ALL of your help!

## **Help Desk Statistics**

Help desk reports provide the following analysis of the amount of activity and usage of help desk systems throughout an election. Help desk reports provided include:

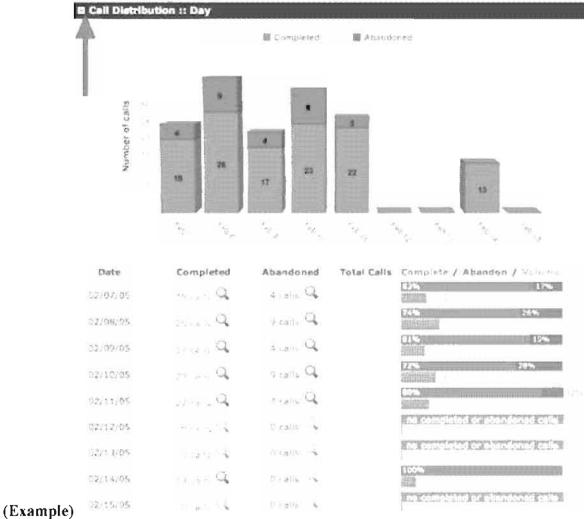
- E-Mail / Chat / Call Distribution
  - Average Hold Time / Delay for Response
  - Number of Calls
    - ■By Day
    - ■By Hour
  - Abandonment Rate
- Symptom Analysis
  - Symptom causing inbound support request
  - Solution Provided

#### Symptom Analysis (Example)

Symptom	Resolution	Count
---------	------------	-------

Symptom	Resolution	Count
Could Not Login to Voting System	Reset Credentials	38
Forgot Voting System URL	Re-sent URL to Voter	17
Signup Request	Signup user	9
Questions about online voting	Provide documentation	3

# **Support Distribution Report**



#### **Regression Analysis of Log Data**

At the conclusion of each election, all anonymous log data is analyzed for meaningful data to further the research associated with online voting systems. Intelligence is extracted in the following key areas:

- Peak Voter Activity
- Time to complete ballots
  - Time to complete contest (based on length)
- Preferred method of voting
- Number of errors warned
  - Number of errors corrected

#### **Project Management Reports**

Regular reports on project management milestones, as well as reports regarding financial progress of the project, will be provided to FVAP as key milestones are reached. These reports will address the successes, challenges, and barriers of the implementation and its use.

# Management Approach

## Key personnel:

Internal: Reference the Florida Supervisor of Elections experience statements included at the end of the Management Approach section of this EASE grant application.

External: Reference the Everyone Counts experience statements included at the end of the Management Approach section of this EASE grant application.

#### Past, Present, or Proposed Collaborative Activities with other Institutions/Entities

The E1C/Florida Consortium's lead county (Orange) boasts a measurable legacy of leadership, collaboration, sharing of best practices, and internal innovation within the Florida SOE community. This has been accomplished via leveraging of

- The availability of scalable, well-equipped, high quality and educationally-friendly facilities at the Orange County election offices;
- Orlando's accessible and central geographic location within the state of Florida;
- A history of process and technological innovation by the county's election management and IT staff as the demands and size of the voter populace have expanded; and
- The necessity to continually evolve and improve under the overwhelming national and global scrutiny placed on Florida's SOE community in the past decade.

## Strategic Goals

The E1C/Florida Consortium selected Everyone Counts after:

- inviting (4) solution providers to make presentations and demonstrations to its stakeholders in a late-May Orlando meeting, and
- participating in a recent presentation and clarification of services and terms at the June 2011 FSASE conference in Ft. Lauderdale.

After the presentations, the counties individually comprising the E1C/Florida Consortium chose Everyone Counts as the solution provider that best met near-term and future needs of these counties.

The initial strategic goal of the E1C/Florida Consortium is to enhance service to UOCAVA voters in a cost-effective, collaborative, and sustainable manner via leveraging of web technologies and internet access to reduce reliance on document-based delivery services that are inherently slow in delivery, highly process-challenged in managing changes in where UOCAVA voters reside, and in many areas systemically unreliable. Attaining this goal will allow the SOE community the best ability to meet the challenges of a tight (just 12 weeks) turnaround timeframe between the primary and general election dates.

A secondary and equally important near and mid-term horizon strategic goal is to leverage the eLect Platform's scalability and accessibility by <u>extending the solution to various segments of the voter populace resident within the Consortium's databases</u> as permitted by state law.

#### Methodology of the Approach

A phased approach is envisioned. <u>The E1C/Florida Consortium and Everyone Counts sees the implementation of processes to pursue the strategic goals listed above as an evolution, and not a revolution</u>. Different counties may extend the solution at different times as their capabilities and needs dictate. Some features (primarily capabilities that already exist and are stable in Everyone Counts' products) will be implemented as early as the 2012 Presidential Preference Primary Election (contingent on grant approval and funding and licensing status) to allow maximum time to identify effectiveness and resolve issues in time for the primary election and presidential election in November 2012.

Internal county coordination will be provided by county personnel leadership in collaboration with the lead county (Orange) and Everyone Counts. Everyone Counts will work directly with each county for implementation when coordinated efforts are not required.

#### Definition and Formalization of the Applicants Strategic Goals

The E1C/Florida Consortium will pursue strategic goals via multiple channels as defined below:

- 1. Voter registration/enfranchisement: eventual integration of FPCA processes with existing voter registration databases as permitted by Florida election law;
- 2. Ballot access: make ballots more highly available and accessible, provision of tools and materials that enhance the probability that voted ballot will be validated for counting;
- **3.** Back office automation: deploy technology and processes that streamline ballot duplication processes (recreating scan-ready ballots); saving time, money, and most importantly boosting accuracy rates of duplicated ballots.
- 4. Scalability of the solution: an intent to extend web-enabled ballot access to voters with disabilities, and eventually to absentee voters regardless of where they reside; and
- 5. Impact of the solution: evaluate the proposed solution as a potential successor to current hardware-intensive voting systems as "Vote Centers" approach gains traction and acceptability in Florida.

## Analysis and Measurement of Current Processes

- 1. Voter registration/enfranchisement: the FPCA registration progress (among other means) is too cumbersome and often too time-consuming to enable potential UOCAVA registrants to become eligible to vote in a timely manner
- 2. Ballot access: see above; even those that successfully register are still encumbered with delays in accessing a document-based ballot delivered by various means, and even then then physical return requirements imperil timely return and validation of these ballots
- **3.** Back office automation: voted and returned ballots require tedious and error-prone duplication so that they can be properly processed by optical scan technology
- 4. Scalability of the solution: overhead expenses of the UOCAVA solution can be leveraged to other voter segments to achieve measurable cost/benefit ratios
- 5. Impact of the solution: sustainability and safeguard against obsolescence of the eLect platform can be maximized by focusing on approaches that are not hardware-intensive

#### Identification of Each Process and Elements Related to the Processes

- 1. Voter registration/enfranchisement: voter registration requests from UOCAVA voters are received in several different ways (e.g. mailed paper forms, via Federal Post Card Application (FPCA) or the Federal Write-in Absentee Ballot (FWAB).
- 2. Ballot access: ballots are transmitted via a mailed paper ballot, an emailed blank PDF ballot, or web-enabled access to an FWAB
- **3.** Back office automation: voted ballots received by statutory deadlines are validated, then manually duplicated by manual retrieval of the proper ballot type from secured document archives; voter marks are manually transferred by teams of (3) personnel as follows: one that reads aloud voter preferences, one that marks these preferences on a scannable document, and another that observes the accuracy of the reader and the marker.
- 4. Scalability of the solution: voters with disabilities currently must appear at a the designated early or election day polling location, to vote and cast a ballot;
- 5. Impact of the solution: election day polling locations continue to be dominated by hardware-based solutions that are increasingly obsolete in shorter periods of time

Risk	Impact	Prob.	Mitigation
Election system vendor is unable to meet the needs of the project on schedule.	1	2	Select a vendor with a strong track record of success at election projects. Manage vendor deliverables with weekly status updates.
Ballot data is finalized with insufficient time to implement online election project.	1	1	Integrate online election vendor systems with EMS systems for direct transfer of data.
UOCAVA voter registration data changes frequently during the course of the election.	3	1	Integrate the Federal Post Card Application with the online election system. Schedule voter registration database updates in advance.
UOCAVA voters may not have Internet access.	1	1	Deploy Mobilized Universal Ballot Access solution for areas with high UOCAVA voter populations but low Internet access.
Tight project timescales mean that delays will lead to missed election go live date.	2	2	Front load election project with draft election produced well in advance of actual ballots. Choose vendor with strong track record of success in deploying on-time elections.
Ballots of online election contain errors.	1	2	Audit vendor's quality assurance process. Ensure all acceptance, Logic and Accuracy

#### Identification of Potential Risks & Mitigating Strategies

			tests are completed successfully before election go live date.
Project subject to malicious electronic attack	4	1	Work to security based on DCA approved and other standards. Create a detailed business continuity and disaster recovery plan.
Physical security at data center may be compromised	4	1	Maintain security management measures compliant with SAS 70 Type II defined in the data center service level agreement. A mandated security plan is currently on file w/ the Florida Division of Elections.
Vendor staff may present a security risk to the project	4	Ι	Undertake security checks on vendor employees to assess risk of possibility of such occurrences.
Customer demand for the election services might be larger than anticipated.	2	1	Ensure that the technical system is built to cope with the largest possible demands. Automatic monitoring of system configured for notifications 24x7 should system go outside of expected parameters.
Negative news stories about the new voting methods appear in the local press.	2	1	Assist county with local press during the voter engagement campaign and provide them with positive stories and photo opportunities to education them about benefits.
Turnout is low.	3	3	Start voter engagement and promotion of the new services early in the year and build up to a crescendo around voting time in order to encourage voting.
Culture change issues may generate negative feelings in internal staff and stakeholders working on the project.	1	I	Start internal promotion of the project as soon as possible after contract agreement. Also provide complete visibility of the service development to end users throughout the process.
Some technologies may be new to some election staff	1	3	Ensure staff receives relevant training before they employ their skills. Establish skills hierarchy and provide technology briefings that highlight specific issues of importance to the implementation of each pilot.

Formalization of Performance Indicators for Each Process

- 1. Voter registration/enfranchisement: compare voter registration rates of UOCAVA voters across like elections (ref. reports section)
  - a. Ballot access: compare and measure the following UOCAVA criteria:
  - b. ballots made available (electronically) via eLect Today across like elections;
  - c. ballots voted via eLect Today across like elections;
  - d. ballots returned across like elections;
  - e. ballots counted across like elections;
  - f. ballots invalidated for various reasons;
  - **g.** implement optional post-voting surveys to gauge effectiveness, friendliness and accessibility of web-enabled balloting solution (ref. reports section)
- 2. Back office automation: measure amount of staff time required to duplicate returned and validated UOCAVA ballots compared to manual processes previously employed
- **3.** Scalability of the solution: continue to engage and measure appropriateness within and acceptance of accessibility-challenged community to promote web-enabled ballot design and access
- 4. Impact of the solution: promote and measure appropriateness, acceptance, and cost/benefit of web-enabled balloting to voter populace at-large

## **Justification for Modification of Current Processes**

- 1. Voter registration/enfranchisement: greater participation of the UOCAVA voter populace because registering to vote will be easier and more rapid; the FPCA registration progress (among other means) is too cumbersome and often too time-consuming to enable potential registrants to become eligible in a timely manner; online ballot marking wizard reduces spoiled ballots; allow voters to track status of voted/returned ballots online
- 2. Ballot access: see above; increased time to vote and return a ballot because current process is too reliant on document-based delivery vehicles; email addresses are "stickier" than physical addresses for UOCAVA voters; easier electronic remedy of issues as compared to document-based delivery approaches
- **3.** Back office automation: measurable cost/benefit return via increase in the efficiency and accuracy of duplication of voted and returned ballots; as UOCAVA participation increases, ROI will increase; as an hosted solution, eLect Today requires no additional staff resources or time allocation
- 4. Scalability of the solution: overhead expenses of the UOCAVA solution can be leveraged to other voter segments to achieve measurable cost/benefit ratios; voters with disabilities often cannot use their own (familiar) assistive devices when voting on accessible devices in the traditional polling place locale
- 5. Impact of the solution: safeguard against obsolescence and overall sustainability of the eLect platform can be maximized by focusing on approaches that are not hardware-intensive and in sync with polling location management trends

## Projections of the Effectiveness of the Modifications

*NOTE:* as time passes and prior to the start of the research project, the E1C/Florida Consortium aims to more fully embellish statistics if their current capabilities allow the enumeration of such data by UOCAVA voters.

## 1. Voter registration/enfranchisement:

- Increased participation with more readily available electronic access to an online tool, expect more individuals to be able to easily register
- Data entry error reduction if voters are able to enter data electronically to the database, transcription errors (e.g. from illegible handwriting) are drastically reduced.
- Cost savings data entry expenses reduced if voters self-enter data
- Expectation that registrations submitted on paper forms will migrate to online registrations. Forecast for 2012 General Election that more voters will register on-line as register by paper
- Percentage of potentially challenged UOCAVA ballots not counted due to return delays/certification demands of an election will be measurably reduced

# 2. Ballot access:

- 24 x 7 during the 45 day voting period
- voter ensured of receiving the ballot styles, contests, and candidates specific to their registered address.
- delivery of ballot guaranteed for UOCAVA voters using eLect Platform compared to traditional document-based delivery
- Significance: eLect Today prevents over-votes and warns about under-votes; voter errors will be virtually eliminated (HAVA-mandated 2<sup>nd</sup> chance voting).
- Ballots accessed online and completed online using an electronic marking tool eliminate voter intent issues

# 3. Back office automation:

- Cost/benefit: lower staff costs and time as manual effort is reduced
- Enhanced accuracy: automated duplication of ballots via a 2D bar code will reduce errors introduced in manual duplication efforts
- Scalable: auto duplication allows election offices to absorbed increased UOCAVA participation without increasing ballot processing staff. It also allows election offices to expand the capabilities being developed for the UOCAVA community to other communities (e.g. disabled voters) in a cost effective manner.

# 4. Scalability of the solution:

- Elect Today engineered and continually enhanced with accessibility issues at the forefront
- Scalability: Absentee voting trends nationwide mandate increased accessibility to the ballot

# 5. Impact of the solution:

- Cost/benefit: Government budgets perpetually under pressure to do more with less
- Sustainability: migration toward software -vs- hardware solutions
- Access & enfranchisement: Populace increasingly mobile and connected
- Impact: technological illiteracy continues to erode as older voters embrace new methods

# Measurements of Performance

Refer to the reports overview provided at the conclusion of the Technical Approach and Justification overview. Many statistics will attempt to compare statistics across "like" elections

to measure program popularity and effectiveness. An example of legacy data that will be examined is displayed in the following sample table:

ELECTION	Total requests received	Ballots transmitted paper	Ballots transmitted electronic	Baliots returned	Ballots counted	Bailots returned not counted	Ballots not returned
2006 PRIMARY							
2006 GENERAL							
TOTALS							
2008 P PRIMARY							
2008 PRIMARY							
2008 GENERAL							
TOTALS	паранаранарана	аправлавалар					
2010 PRIMARY							
2010 GENERAL							
TOTALS	авалавалавала		TRABARARA	PBUUDDDDDDDDDD			

#### Current and Pending Project Proposal Submissions (not included in page limitations)

Orange County and The EIC/Florida Consortium do not have any current or pending project similar to the one being proposed in this grant proposal.

#### **Qualifications** - Personnel

#### Vendor partner - Everyone Counts

Our preferred vendor for this program brings 14 years of experience and proven success of these types of projects. 100% U.S. owned and based in San Diego, California, Everyone Counts, Inc., is uniquely positioned to ensure that our election can successfully combine America's oldest values with its newest technologies. Their mission is to help election officials deliver reliable and cost-effective universal access to the ballot. Since 1996, the company's core and primary business has been to provide innovative technology solutions in public and private elections through eLect<sup>™</sup>, Everyone Counts' proprietary family of secure and transparent voting solutions. Their clients have included governments, political parties, labor unions, associations, and private organizations all over the world.

#### Qualifications -Deployments Examples of Relevant Projects

Customer: State of Utah Point of Contact: Mark Thomas, State Election Director Period of Performance: 2010 General Election Description of project: Electronic ballot delivery for Utah 2010 General Election; UOCAVA ballots deployed early and seamlessly, coinciding with existing election processes and FVAP project requirements. Ballot marking solution a "success," says Utah Elections Director Mark Thomas.

Customer: Numerous Counties in West Virginia Point of Contact: Jackie Harris, Policy Director

#### Period of Performance: 2010 General Election

**Description of project:** Using secure credentials, UOCAVA voters accessed, marked and cast their ballot online. Ballots were accessed and cast using military-grade encryption technology, and were decrypted on-site at the local election office where each marked ballot was printed to be included in the count. 100% of surveyed voters said they would use the system again and 95% found the system very easy to use.

#### Customer: El Paso County, Colorado

**Point of Contact:** John Gardner, Chief Deputy and Director of Operations **Period of Performance:** 2010 General Election

**Description of project:** When El Paso County's assigned vendor for MOVE Act compliance failed to meet their needs for the 2010 General Election, they turned to Everyone Counts. Having provided online ballot marking for El Paso County's 2010 Primary Election, they knew from experience Everyone Counts could deliver. "Everyone Counts saved the day. We called you on Saturday and four days later you had the election up and available for voters." said John Gardner, Chief Deputy and Director of Operations for El Paso County, Colorado.

#### Customer: Clackamas County, Oregon

Point of Contact: Sherry Hall, County Clerk

Period of Performance: 2010 General Election

**Description of project:** Clackamas County offered secure transmission of online ballots for UOCAVA voters. "It is an honor to be the first County in Oregon to have the privilege of partnering with Everyone Counts in implementing an online tool for Military/Overseas voters. As Clackamas County Clerk, I want to ensure that the Military/Overseas Vote counts. This system provides a seamless, secure and simplified method to facilitate this process" said Sherry Hall, Clackamas County Clerk.

#### **Everyone Counts Management**

Everyone Counts has built a strong team of professionals who are the best at what they do. Their experience in this innovative area of voting is second to none. Led by the executive team, Everyone Counts is headquartered in San Diego, California and administers elections all over the world.

Lori Steele - Everyone Counts, Inc.- Chief Executive Officer – brings more than 20 years of sound investment management and corporate finance experience to Everyone Counts. In addition, Steele has detailed experience in promoting fair elections and improving voting methods and technologies across the globe. She has built a strong team and led her company to deliver a number of firsts that have enabled innovative voting channels to empower voters, particularly those with access issues and those whose participation rates are low.

**Paul DeGregorio - Everyone Counts, Inc.- Chief of Elections** – DeGregorio began his career in elections in 1985, when he was appointed Director of Elections for St. Louis County, Missouri. From 1993-2003 DeGregorio worked as a technical expert and later as the COO and Executive Vice-President of the International Foundation for Election Systems (IFES). In 2006 he served as Chairman of the United States Election Assistance Commission (EAC). As the USA's chief election official, DeGregorio focused on implementing the Help America Vote Act (HAVA) and fostering higher standards for electronic voting, best practices for election officials, and encouraging the use of new technology to serve voters, particularly voters with special needs.

**Aaron Contorer - Everyone Counts, Inc.- Chief of Products and Partnerships** – spent 10 years at Microsoft where he was an executive on Windows, MSN, and Visual Studio, building and running product-development teams of up to 200 professionals. He helped lead the conversion of MSN from proprietary to Internet standards, and from his early work on Windows networking he holds several patents in distributed systems and network security. At Microsoft, Contorer also served as Bill Gates' technical advisor.

**Pedro Cortés - Everyone Counts, Inc.- Executive Vice President** – former Pennsylvania Secretary of State (2003 to 2010) leveraged technology to improve operations and services in every facet at the Department of State. In the area of elections, Cortés and his team successfully administered 15 Primary and General Elections. He led the implementation of the federal Help America Vote Act; during his tenure, the state revolutionized voting, moving from paper and lever machines to electronic voting systems, and voter registration information that is now housed in a centralized system designed to ensure the accuracy and integrity of the commonwealth's voter registration records maintained by Pennsylvania's 67 counties.

Karen Clakeley – Everyone Counts, Inc.– Vice President of Sales – has more than 20 years progressive experience in building and leading world-class sales, marketing and business development teams for market leading, global companies. Before joining Everyone Counts, Karen led the strategic account planning and client services activities for the nation's largest producer of printed and electronic customer communications. Karen is results driven and moves fluidly from vision and strategy to implementation and successful achievement of desired results.

Mike Joyce – Everyone Counts, Inc.– Senior Program Manager –For over 8 years Mike has managed and scaled Telecommunications professional services, operational, and sales organizations. Overseeing development, deployment and support of over 10,000 Asterisk PBX systems, Mike specializes in building and organizing highly technical teams through a lead-by-example approach. As a former software development and systems engineer, Mike has a deep understanding of Linux / UNIX, Telecom, Networking and Systems Integration. Mike has designed and deployed customized, highly versatile IVR systems for Governments and Businesses Worldwide. Mike also has a deep background in designing and implementing professional, highly technical training and certification programs.

Jared O'Brien - Everyone Counts, Inc.-Lead Elections Administrator - supervises the successful conduct of all phases of public and private sector elections administered by Everyone Counts; he has worked with clients located in the United States, Canada, Australia and the Russian Federation. Jared has overseen the administration of over 50 elections, including public elections in the US States of Hawaii, Florida, and West Virginia that utilized Everyone Counts'

eLect software to provide better voting solutions for electors with disabilities and military and overseas electors.

**Nick Coudsy - Program Manager -** Nick has 15 years of experience in U.S. public sector elections and is a certified Project Management Professional (PMP). He has worked for many years as an election administrator and as the director of training for Los Angeles County, the largest electoral jurisdiction in the USA; and, for Contra Costa County, California. Nick, who is an election hardware and software specialist, served as a Project Manager for Premier Election Solutions for three years, focusing on serving their California and Florida State clients, particularly on the implementation of new voting systems and certification.

## Orange County Elections (Lead county) Bill Cowles – Supervisor of Elections

Bill Cowles has been an integral part of the Orange County Supervisor of Elections office since 1989, after serving thirteen years on the staff of the Central Florida Council, Boy Scouts of America. He was elected as the Orange County Supervisor of Elections in 1996, and re-elected in 2000, 2004 and 2008. Bill supervises the fifth most populous county in the State of Florida.

Appointed in 2007, Bill serves on the Federal Elections Assistance Commission Board of Advisors. His other professional involvement includes being Past President of the Florida State Association of Supervisors of Elections, as well as Past President of the International Association of Clerks, Recorders, Election Officials, and Treasurers

Bill graduated in 1976 with a degree in Public Administration, from Florida Technological University, (now known as University of Central Florida). He is a member of the Alumni Association Legislative Committee.

## Participating Consortium Member- Broward County Dr. Brenda Snipes- Supervisor of Elections

Dr. Snipes is a highly regarded education consultant and has traveled to other counties and states to serve as a consultant in leadership for principals and district level administrators. Because of her extensive and successful leadership and administrative skills, Dr. Snipes was asked by Governor Jeb Bush to serve out the term of Supervisor of Elections in Broward County. She began this appointment on November 20, 2003. She was re-elected for a four-term in November 2004, and again in November 2008. During her tenure in this position, she has administered several successful elections and under her leadership more than 30,000 local high school and college students have been registered to vote.

Due to her commitment to continuous improvement through voter education, awareness and outreach, Dr. Snipes has served as keynote speaker for hundreds of groups and organizations throughout Broward County. She is also an active member of the Florida State Association of Supervisors of Elections (FSASE) where she serves on committees and participates in state conferences and meetings. Dr. Snipes serves as the chairperson of the Strategic Planning Committee and co-chair of the Continuing Education Program (CEP) for supervisors and their

staff. She recently served on the United States Election Assistance Commission (EAC) study group regarding Elections Management Guidelines.

#### Participating Consortium Member- St. Lucie County Gertrude Walker, Superintendent of Elections

Gertrude entered the election management space as Deputy Supervisor of Elections in 1968; she was appointed Supervisor of Elections for St. Lucie County in 1980 by Governor Bob Graham. Gertrude is Florida's first African-American elected Supervisor of Elections in Florida. Her FSASE leadership roles include (among numerous others) Board of Directors (twice), By-laws and Resolutions Committee Chairperson, Legislative Committee member, Budget Committee Chairperson, FSASE Scholarship Chair, and other roles. Gertrude was also elected President of IACREOT in 2005.

#### Participating Consortium Member- Lee County Sharon Harrington, Supervisor of Elections

A Cleveland OH native, Sharon relocated to Fort Myers in 1975. She joined the Lee County Elections office in 1989 as Fiscal Officer/HR Director. In January 2004, Governor Jeb Bush appointed Sharon as Lee County SOE; she took office that February. Her leadership roles include serving as a Board Member on the Southwest Florida Crime Stoppers Board of Directors. Sharon is a Lifetime Member of Kiwanis International and has served as Charter President, District Chairman and was presented the Distinguished Kiwanis Lady Award in 1994. She has served on numerous committees and boards for the FSASE, including the Florida Delegation Director for IACREOT.

## Budget Proposal (not included in page limitations)

## a) Direct Labor

The engagement of eLect Today and eLect Transcriber are accomplished via a bundled license, annual maintenance, and ongoing per election fees. Ongoing annual maintenance and support fees cover periodic eLect Today and eLect Transcriber application enhancements, maintenance of application hosting assets, and so on. Labor burdens on county personnel associated with the adoption of eLect solutions will be minimal.

## b) Administrative and clerical labor

This research project and eventual goal of sustainably mainstreaming of eLect voter management tools into the broader umbrella of county election management tools will not require extensive amounts of administrative or clerical support measurably greater than normal routine levels of effort.

## c) Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.)

None anticipated or applicable for the purposes of this grant application.

## d) Travel

No air or ground travel outside the state of Florida is anticipated as a result of deploying eLect Today and eLect Transcriber solutions. Some limited and occasional travel of consortium members to the Orange County election meeting room in Orlando may be necessary as the initiation of the solution deployment approaches. Limited contractor travel, if any, is covered in terms of the eLect Today license fee and ongoing annual maintenance and support.

#### e) Subcontracts/sub awards

No subcontracts or sub awards are anticipated.

#### f) Consultants

No fee-based consultants have been contractually retained nor are any anticipated. The Orange County Accessibility Task Force will likely be engaged at no charge for accessibility research. consultation. Orange County has previously and regularly engaged this advocacy group to enhance accessibility of its voting solutions.

#### g) Materials and Supplies

eLect Today and eLect Transcriber are hosted solutions. No IT infrastructure directly related to deployment of eLect Today will be purchased or leased by E1C/Florida Consortium members.

	2011-2012	2013	2014	2015	2016
eLect Today license & maintenance	\$280,000 (one-time fee)	incl.	incl.	incl.	incl.
eLect Transcriber license & maintenance	\$40,000 (one-time fee)	n/a	n/a	n/a	n/a
eLect Administrator license & maintenance	\$150,000 One-time fee	n/a	n/a	n/a	n/a
Per election fee (\$8,000/election) <sup>1 &amp; 2</sup>	(3) elections: \$24,000 x 4 counties = \$96,000	Assumes (1) election	Assumes (2) elections	Assumes (1) election	Assumes (3) elections
Ballot converter software (\$22,355/county license)	\$89,420	n/a	n/a	n/a	n/a
TOTALS	\$655,420	\$0	\$0	\$0	\$0

## h) Other Direct Costs

<sup>1 & 2</sup> eLect Administration Wizard functionality enhances program sustainability by freeing the SOE community from reliance on the vendor in downstream years as described below.

#### eLect Administration Wizard - Phase 1

This functionality will provide the ability for the county election staff to build their own ballots through an online wizard vs. contracting with an outside vendor (in this case, Everyone Counts) to produce eLect Today web-enabled ballots. These enhancements are tentatively scheduled for CY 2012 release.

## eLect Administration Wizard - Phase 2

In this phase of the technology rollout the wizard would be integrated with each specific county EMS and Voter Registration Databases. Everyone Counts will enhance the wizard for eLect Today ballot building by allowing for automated export of data into the eLect Administration tools. This solution also aims to support the common data format project currently under review by FVAP. These enhancements are scheduled for a CY 2013 release.

#### 1. Technical Proposal

## Catalog of Federal Domestic Assistance Number: 12.217

BAA number: H98210-BAA-11-0001

Title of proposal:Electronic Absentee Systems for Election Grant ApplicationsCAGE Code:(b)(4)DUNs Number:(b)(4)

Applicant:	Oregon Office of the Secretary of State
Sub Contractors:	Election Systems and Software, Inc and Scytl USA LLC

#### Oregon Secretary of State's Office Technical contact:

Name: Don DeFord Address: 255 Capitol Street, NE, Salem, Oregon, 97310 Phone: 503.986.1518 Fax: 503.373.7414 eMail: Don.Deford@state.or.us

## Oregon Secretary of State's Office Administrative/ business contact:

Name: Steve Trout Address: 255 Capitol Street, NE, Salem, Oregon 97310 Phone: 503.986.1518 Fax: 503.373.7414 eMail: Steve.Trout@state.or.us

Period of Performance: 15 September 2011 to 31 December 2016

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## 3. Technical Approach and Justification

## 3.1. Executive Summary

The Oregon Secretary of State's Office is conscious of the challenges facing our military and overseas voters and is committed to growing and adapting our services and supporting technologies to meet their continuing needs. Oregon's participation in the Electronic Absentee Systems for Elections Grant initiative will allow us to continue efforts to research and evaluate innovative technologies and associated services that we believe will improve, and increase the successful level of participation within this valuable constituency group. The Oregon Secretary of State's Office intends on addressing these challenges as well as others through the establishment of the UOCAVA System Enhancement Research (USE) Program.

The Oregon Secretary of State's key program objectives include establishing and successfully improving electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The Oregon Secretary of State's Office also believes the efficacy of our efforts can be shared and will benefit other jurisdictions.

## 3.2. Goals and Objectives

**3.2.1. UOCAVA System Enhancement Research (USE) Program Overview** The Oregon Secretary of State's Office proposes a UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate in the ballot return process.

# 3.2.2. Factors Achieved

The Oregon Secretary of State's Office believes that our unique assets, capabilities, locations, and personnel will foster and develop products and processes which will lessen the impediments that exist for the UOCAVA voter and will strongly address the Evaluation Factors stipulated in the FVAP EASE Grants program. Our research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

# 3.2.2.1. Significance

Knowing that research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate, the USE Program will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- *Voter Registration* BALLOT*safe* will work in coordination with any Oregon's voter registration system and will provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot Request BALLOTsafe will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the absentee ballot request. Further, this process will allow the voter to set up an account on

BALLOT*safe* to track the return and processing of the absentee ballot request. With an account, the voter will also be able to set up email reminders for each election.

- Absentee Ballot Delivery BALLOTsafe will utilize the ballot data from Oregon's election management system and deliver the precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in ballot delivery, the BALLOTsafe online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.
- Absentee Ballot Marking BALLOTsafe provides an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. Multiple languages, write-ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.
- Absentee Ballot Return and Tabulation BALLOTsafe will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOTsafe will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assists in the automated duplication of returned paper ballots into optical scan format for tabulation or for Ballot on Demand printing. Ballot return tracking updates are provided to the voter immediately through BALLOTsafe and through email notifications.

# 3.2.2.2. Sustainable

The Oregon Secretary of State is focused on constructing cost-effective and sustainable solutions which successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in Oregon's assessment of sustainability shown below. The Oregon Secretary of State's Office believes these factors are achievable through a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. Oregon will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the USE Program.
- The program and solution will be **logistically sustainable**. The USE Program will seek to realize operational efficiencies over current processes through the use of BALLO*Tsafe* technology which will provide a lower level of effort that can be sustained even with decreasing budgets.
- The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform which relies on advances in cryptographic protections, advances in Java based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

# 3.2.2.3. Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage

which provides for the broadest impact to voters and election officials. Some advanced concepts which will provide greater impact to voters are:

- Sample Ballot The sample ballot feature of BALLOT*safe* allows voters the opportunity to access the jurisdiction's sample ballot before the election. Through the election official's interface, officials are allowed to publish campaign statements from candidates as well as additional information that will be available to voters in the sample ballot.
- *News Feed* BALLOT*safe* provides specific news feeds to voters. The news feed is provided in a sidebar of the voter web site and includes news events generated by the local election official. As desired, the news feed may also be linked to FVAP or the jurisdiction's social media feeds.
- *Accessibility* BALLOT*safe* has been purposefully constructed to be in compliance with the applicable web accessibility standards and to provide an intuitive interaction when being understood or controlled through personal assistive devices.

The State of Oregon is interested in evaluating the ability to utilize BALLOT*safe* on a variety of voter available platforms, such as iPADs, smartphones, or other portable devices. Research will be conducted to assess the viability and capability of using such a device to reach a broader range of voters. The findings of this research will be reported and subsequent pilot initiatives may be initiated.

# 3.2.2.4. Strategic approach

The Oregon Secretary of State's Office has presented a credible hypothesis and will provide a well-defined and appropriate plan to test that hypothesis. The plan is further defined in 3.3 Schedule and Milestones and the Management Approach, Section 4. We believe the hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

# 3.2.2.5. Innovation

The USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The Oregon Secretary of State's Office believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of BALLOT*safe*:

- Security -The groundbreaking cryptographic protocols inherent in BALLOTsafe provide elections with the highest levels of security, in terms of voter's privacy, voter verifiability, election integrity, system availability, and access control. BALLOTsafe provides security through the use of a physically secure data center, complete redundancy of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.
- **Ballot Choice Barcode** BALLOT*safe* provides accurate and reliable automated duplication of returned paper ballots with its ballot choice barcode feature. Using a barcode on a ballot generated through the voter's onscreen marking wizard, the ballot choice barcode can replicate the voter's selections onto the local jurisdictions optical scan readable ballot. Ten Oregon counties representing a diversity of population and regional representation will be selected to test Ballot on Demand printers beginning with the

November 2011 election. The remaining counties will participate in the research as control subjects.

- Oregon will work with our selected vendor, to further research additional enhanced ballot duplication concepts. Auto-duplication of ballot return via email without having to print the ballot will also be evaluated for research purposes only.
- Social Media Interaction BALLOTsafe provides mechanisms for the voter to interact with social media content (Facebook, Twitter, etc) through BALLOTsafe.
- *FPCA barcode* The voter can complete an FPCA through the BALLOT*safe* FPCA wizard with an absentee data barcode. This barcode provides for the automated exchange of the voter's information from the FPCA into the local voter registration processing queue. This reduces the need to manually enter voter information.
- **UOCAVA community forum** -We have established and will maintain a pipeline of ideas, techniques and best practices of election officials and their services for UOCAVA voters.

# 3.2.2.6. Scalability

The USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGi. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of:

- Usage increases in the number of voters and number of ballots styles it can support;
- *Impact* changes to and increases in the types of voters and their requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality which it employs.

# 3.2.2.7. Collaborative

The Oregon Secretary of State's Office has designed the USE Program to be a collaborative program involving key election technology providers – ES&S and Scytl, reputable academic researchers from Cal Tech University and University of Utah, and other election jurisdictions through a data and experience sharing portal in BALLOT*safe*. This consortium of election officials, system providers, and researchers will collaborate together to address and improve the absentee voting process. We will use a six-sigma approach to improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- *Measure* key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships
- *Improve* or optimize the current processes based upon data analysis to create an improved, future state process.
- *Control* the future state process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

#### 3.2.2.8. Cost Benefit Analysis

Each major component of BALLOT *safe* can separately, or in total, be evaluated for ROI against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

# 3.2.3. Security Measures

The USE Program will provide administrative, technical, and physical controls to protect voters' personal identifying information (PII) and sensitive election material. At a minimum, we will employ **administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by ES&S and Scytl through the BALLOT*safe* solution. First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls where it is under 24/7 physical and application monitoring. The infrastructure, including all hardware, software, and security controls are also monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software to be free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to seamlessly verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect voters' identifying information from ever being associated with their ballot selections.

#### 3.3. Schedule and Milestones

The Oregon Secretary of State's Office has identified the following as the initial schedule assuming a grant award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

#### 1. Initiation and Planning Phase

Start Date: August 1, 2011 Duration: 45 days

During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown, statement of work with each subcontractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

- a) Completion of Project Management Plan
- b) Completion of Quality Management Plan

# 2. Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

This phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of these will be addressed directly through BALLOT*safe* while others may be addressed through policy changes. Ten test counties will have Ballot on Demand printers set up by October 1, 2001 to test the benefits of new duplication technologies as soon as a November 2011 election.

# Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization
- d) Delivery of Ballot on Demand printers to ten test counties by October 1, 2011

#### 3. Technology Modernization

Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for the customization, activation, and outreach efforts in preparation for the first election and through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase 2, BALLOT*safe* and other systems will be customized to address Oregon's requirements.
- Voter Education During this phase, voters will be notified of the modernization and how it impacts them through multiple communication channels.
- Integration and Testing The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters.

#### Milestones:

- a) Technology Modernization Completion Primary Election
- b) Technology Modernization Completion General Election

#### 4. Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the USE Program to enhance the technology and services provided to UOCAVA voters. Each progressive election may include greater enhancements to achieve the incremental goals established in phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan.

#### Milestones:

- a) Presidential Preference Primary Completion
- b) Completion of Election Analysis and Assessment Report Presidential Preference Primary
- c) Primary Election Completion

- d) Completion of Election Analysis and Assessment Report Primary Election
- e) General Election Completion
- f) Completion of Election Analysis and Assessment Report General Election

# 5. Final Analysis and Reporting

# Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase begin. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of USE Program Final Report

# 3.4. Reports

# 1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Oregon Secretary of State's Office will prepare quarterly programmatic and financial progress reports. For the purposes of the USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

The financial progress report will provided

• Financial reports as required will be provided in accordance with determined project schedule.

The following programmatic and financial progress reports will be prepared:

- a. Fourth Quarter 2011 Programmatic and Financial Progress Reports
- b. First Quarter 2012 Programmatic and Financial Progress Reports
- c. Second Quarter 2012 Programmatic and Financial Progress Reports
- d. Third Quarter 2012 Programmatic and Financial Progress Reports

- e. Fourth Quarter 2012 Programmatic and Financial Progress Reports
- f. First Quarter 2013 Programmatic and Financial Progress Reports

# 2. Data collection points reports

There will be several data collection point reports prepared throughout the USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned
- Types and number of problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

- a. Presidential Preference Primary EAAR
- b. Primary Election EAAR
- c. General Election EAAR (will be incorporated in the Final Report)

# 3. Final Report

The USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

#### 4. Management Approach

#### 4.1. Introduction

ES&S and Scytl have formed a strategic alliance to provide the necessary technology and tools to allow Oregon to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. The Oregon Secretary of State's Office intends on using an organized project management methodology with ES&S and Scytl to achieve these goals in a sustainable and organized way. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, local election personnel, and election officials from other jurisdictions. This cooperative of the Oregon Secretary of State's Office, election officials, election service and system providers, and researchers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- *Measure* key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved, future state process.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

#### 4.2. Project Organization

#### 4.2.1. Project Director

The Oregon Secretary of State's Office will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

#### 4.2.2. Project Steering Committee

The project steering committee will be comprised of the project director, project manager; key personnel from ES&S and Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with the strategic goals and objectives and key factors in Section 4.4.

#### 4.2.3. Project Manager

Election Systems and Software (ES&S) will serve as project manager for the USE Program. ES&S maintains a global team of PMI certified Project Management Professionals and Elections Experts with specific experience in election solution implementations. The ES&S Project Management Office (PMO) has over 285 years of combined elections experience, which has allowed the PMO to develop election specific best practices to accommodate the unique and challenging aspects of the election industry. This team of professionals is trained to manage projects pursuant to the Project Management Institute's project management principles. Each Project Manager is supported by a team of Technical Engineers, Subject Matter Experts, and Support Specialists to assure that each aspect of the project is managed effectively and efficiently.

# 4.2.4. Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project manager and will be responsible for data collection and analysis. The research team will form hypotheses and will report findings. All research products will be validated with the steering committee which will prepare the conclusions.

# 4.3. Project Resources

# 4.3.1. ES&S

ES&S and Scytl will work collaboratively to leverage the strengths of each company for the purpose of installing and supporting the BALLOT*safe* system. Specifically, ES&S will provide development expertise in the areas of system integration for voter registration and election management systems. The ES&S training department will provide instructional information and facilitate training activities. The ES&S support group will install and coordinate the usage of BALLOT*safe* with Scytl subject matter experts. The ES&S Helpdesk will provide 1<sup>st</sup> and 2<sup>nd</sup> tier level support to the State and local election officials and ES&S and Scytl will work jointly to provide any 3<sup>rd</sup> tier level support required.

# 4.3.2. Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the USE Program, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department.

# 4.3.3. Academic Researchers

The USE Program will utilize outside academic researchers – Michael Alvarez and Thad Hall – for some of the research and analysis efforts. In their academic careers, they have focused on elections, voting behavior, election technology, and research methodologies. The Oregon Secretary of State's Office believes that the addition of these experts will enhance the quality of the program's research and assist in tackling some of the prevalent challenges facing democratic elections.

# 4.4. Project Strategic Goals

The UOCAVA System Enhancement Research (USE) Program will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

# **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.
- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), Oregon will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

**<u>Plan</u>:** Implement tools and services provided by ES&S and Scytl in a phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving Oregon's capabilities to support our overseas voter population.

# 4.5. Research Methodology

The USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

# 4.5.1. Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis, considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

#### 4.5.2. Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies to better meet their needs. As a starting point, the Oregon Secretary of State's Office knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens who are located in remote locations. In addition, although active duty military members

complete Federal Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, Oregon citizens are likely to experience widely divergent voting experiences depending upon their country of residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries also varies widely. The aforementioned are but a few of the well known challenges faced by our overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

#### 4.5.3. Technology Enhancements

While Oregon is already aware of many areas where BALLOT*safe* can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of Oregon's voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT <i>safe</i> will work in coordination with online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on time.
Absentee Ballot Request	BALLOTsafe will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOTsafe to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.	Traditional postal delivery and return of ballot requests introduce unpredictable delays into the process which delay future steps. Voters can often forget when a ballot request is due for an election or may complete it incorrectly.	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them correctly.
Absentee Ballot Delivery	BALLOTsafe will provide online ballot delivery of precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot	Traditional postal delivery of ballots is lengthy and unpredictable. It is	The electronic delivery of ballots through a secure internet based portal

	availability. To assist in the ballot delivery, the BALLOTsafe online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	will provide consistent access to eligible voters which will improve the successful completion and return rates of ballots.
Absentee Ballot Marking	BALLOTsafe will provide an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write- ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.	Some absentee voters have difficulty understanding ballot content and completing ballots correctly. Voters with disabilities face significant problems marking paper ballots. Furthermore, manual duplication is often required of ballots which are returned. When a voter uses the onscreen marking wizard, BALLOT <i>safe</i> provides a mechanism for the automated replication onto an optical scan ballot.	Voters who use an intuitive and accessible onscreen marking interface will have a higher probability of completing the ballot correctly which will increase the number of ballots returned successfully. The ballot replication mechanism with BALLOT <i>safe</i> will provide greater operational efficiencies in the return processing of the ballot.
Absentee Ballot Return and Tabulation	BALLOTsafe will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOTsafe will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assist in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately upon processing through BALLOTsafe and through email notifications.	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their ballot is returned and if it was accepted. Furthermore, without automated interfaces, there are delays in the processing and tracking of ballots.	The use of an online electronic portal to provide correct return information and return documents will improve the case and rate of successful return of ballots. Automated interfaces and the use of barcodes and ballot on demand printers will shorten the processing delay and shorten the time it takes to provide tracking information to voters.

#### 4.6. Performance Management

#### 4.6.1. Performance Management Approach

To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the USE Program goal and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- To manage the project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 4.4. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

#### 4.6.2. Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success		
Improve the rate of completed UOCAVA voting transactions from registration to ballot return.	At each step in the absentee voting process, the number of voters who complete each phase of the process increases. This will be measured on a per election basis, comparing previous election of that type to the current election. For example, the 2012 Primary Election will be compared with the 2008 Primary Election.		
Increase the percentage of UOCAVA voters participating and voting in Federal elections.	For each Federal Election, there is an increase in percentage of UOCAVA voters who participate in at least one portion of the voting process.		
Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.	Based on a comparison of the average failure rates for each stage in the absentee voting process with the failure rates of the current election, there is a decrease in the failure rate in each stage.		
Provide tools and services that can benefit other jurisdictions.	The solution provided supports the legal, procedural, and technical requirements of other jurisdictions.		

Provide security measures to protect users' personal identifying information and any transmitted election material.	Data collected through system audit logs, internal auditing, and interactions with voters does not indicate that any user's personal identifying information or sensitive election material was compromised in any way.
Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives	Reports provided through the USE Program include reliable data, complete analysis, and discerning conclusions for each of the objectives above.

#### 4.7. Risk Management

#### 4.7.1. Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- Risk identification. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis**. Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- Commence at the Project planning stage, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

- **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.
- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - The risk owner who is the person responsible for managing the response plan
  - The risk response strategy that will be used
  - The description of the mitigation or contingency plan
  - Any stakeholders impacted by the risk
  - o The cost of the risk response
- **Risk Mitigation plans**: This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

#### 4.7.2. Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated against.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- e. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

4.8. Current and pending project proposal submissions

<NA>

Title of proposal and summary:	NA	
Source and amount of funding:	NA	
Percentage of effort devoted to each proj	ect:	NA
Identity of prime applicant:		ŇA
List of subcontractors:		NA

Technical contact:

Name:	XXX
Address:	XXX
Phone:	XXX
Fax:	XXX
eMail:	XXX

Period of Performance:	XXX
Award period:	XXX
Award amount:	XXX
Man months:	XXX

Relationship (if any) with the current request:  $\boldsymbol{X}\boldsymbol{X}\boldsymbol{X}$ 

#### 4.9. Qualifications

#### 4.9.1. Introduction

To assist personnel from Oregon, the Oregon Secretary of State's Office has selected ES&S and Scytl to provide operational, research and technology support with their key personnel list below. Oregon believes ES&S and Scytl have the best product and personnel to provide the services and support sought for the EASE grant execution in Oregon.

# 4.9.2. Key personnel

#### Steve Trout, Director of Elections, Oregon Secretary of State

Steve Trout currently serves as Oregon's Director of Elections, a position he has held since 2009. He has 13 years experience in election law and administration. Prior to becoming Oregon's Director of Elections, Steve worked in the private sector for 5 years assisting local governments with compliance with election laws, including HAVA and the Voting Rights Act, as well as with election administration and training. Steve has previously served as Senior Election Counsel to the California Secretary of State and as Assistant Registrar of Voters in San Bernardino County, CA. Steve has defended election procedures in both state and Federal courts, including the US Supreme Court. He holds a Bachelor of Arts degree in Political Science, a Bachelor of Sciences degree in Managerial Economics, and a Juris Doctor degree all from the University of California at Davis.

# Don DeFord, HAVA Grants Manager, Oregon Secretary of State

Don DeFord studied microbiology and business communication. He began working in regulatory compliance in the cosmetic and pharmaceutical industries. He spent three years learning federal grant management in environmental remediation at the Hanford Nuclear Site. He moved back to the pharmaceutical industry for 15 years, working on federal grants supporting research and sales of pharmaceutical and biotech products for infectious diseases, asthma, mental health and diabetes. He joined the Oregon Secretary of State's office in the elections division in May of 2010 as the HAVA Grants Manager, responsible for the management and distribution of federal HAVA funds in Oregon.

# Ericka Haas, HAVA/OCVR Business Analysis, Oregon Secretary of State

Ericka Haas is a Business Analysis with the Oregon Secretary of State's office, focusing on HAVA and the Oregon Centralized Voter Registration (OCVR) system. As a Business Analysis, she provides project and contract management functions as well as systems analysis and design. She has been with the Oregon Secretary of State for 3-1/2 years working with the Oregon County Election Officials on maintaining and enhancing the statewide system and other election initiatives. Ms. Haas was the project manager for Oregon online voter registration implementation and has been participating in workgroups on Voting Information and Voter Registration Modernization with the Election Initiatives division of the Pew Center on the States. Prior to joining the Oregon Secretary of State's office, Ms. Haas spent 4 years as part of the team working on the development and implementation of OCVR while working for Helion Software, Inc. With Helion and other software companies, Ms. Haas has been working with County Election, Recording, Taxation, Assessment, and Road departments, plus other Oregon state agencies, for over 15 years.

# Thomas H. Ferguson, National Director, Electronic Ballot Access, Election Systems and Software

Thomas Ferguson is currently serving as the National Director, Electronic Ballot Access and an Election Product Specialist for ES&S. He has approximately ten years of government management experience as the Director of Elections for the Office of the Secretary of the State of Connecticut. Prior to taking the position with the state, Mr. Ferguson served as the Registrar of Voters for the Town of Manchester, Connecticut for six years. Additionally, he is a past-president of the National Association of State Election Directors (NASED). During his tenure with the Secretary of the State, he was the Project Manager for the development and implementation of the Statewide, Centralized Voter Registration System. Mr. Ferguson was also the Project Manager for the development of Connecticut's browser based Campaign Finance Information System, as well as systems that house and manage the Connecticut's chief polling place officials. He has an extensive elections and project management background from his 25 years of work and experience in local and state elections.

#### Peter M Zelechoski, MBA-TM, CISSP, CISA, Election Systems & Software

Peter Zelechoski has 9 years experience in the voting systems business sector with experience at county and state levels (US) and in international countries defining, customizing, and deploying voting systems, and operating voting systems/machines in elections. Mr. Zelechoski has experience as president, board, committee chair and committee member levels for large and small non-profit and not-for-profit groups. With 30+ years experience in computer systems, he has hands-on experience with data interchange in financial, business, and election applications and as an architect for computer systems integration across platforms, networks, security boundaries. Mr. Zelechoski is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), a member of IEEE P1622 Voting Systems Electronic Data Interchange standards workgroup, and a member OASIS EML task group (Election Markup Language). He has a Master of Business Administration in Technology Management.

#### Paul Miller, Business Development Manager, Scytl USA, LLC

Paul A. Miller, a former State and County Elections Official, is a highly qualified Project Manager, Elections Subject Matter Expert, and Technologist with more than 30 years'+ experience in technology and software development industries, foremost being in State and County Government Elections. He has been called upon by the EAC time and again, to provide Election Subject Matter expertise to panels, workshops, working committees, and testimony before the EAC commissioners. He was selected by the National Association of State Elections Directors (NASED) to serve as one of two NASED representatives to the Technical Guideline Development Committee (TGDC). The TGDC is a small panel of national experts tasked to work with the EAC and NIST to draft next generation voting systems standards.

Mr. Miller's election related experience has made him a nationally known subject matter expert within the elections community. Beginning with his tenure as Assistant Elections Superintendent-Data Processing in King County to Senior Technology/Policy Analyst at the Washington Secretary of State, he has gained a comprehensive knowledge of County Administrative Processes, Election Processes and Procedures, State and local Voter Registration Databases, Voting Systems, State Certification procedures, the Federal Testing and Certification Processes, Voluntary Voting System Guidelines and Federal and State Election Statutes. He has led innovative changes to county elections processes, most notably the most extensive use of its day in the nation of high-speed scanning to sort, process, and validate signatures in the absentee return ballot processes. He led the state's efforts to completely modernize its petition/signature checking processes, upgrade its voting system certification program in a high-visibility environment, and develop the state's HAVA- compliant Voter Registration System.

After being the state project manager for the 2010 implementation of U.S. Federal Voting Assistance Program's Electronic Voting System Wizard project in Washington state, Mr. Miller joined Scytl as Business Development Manager in April 2011.

#### Aaron Wilson, Project Engineer, Scytl USA, LLC

Aaron Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

#### Thad E. Hall, Ph.D. (Researcher)

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* (Princeton University Press) and *Abortion Politics in Congress: Strategic Instrumentalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

#### R. Michael Alvarez, Ph.D (Researcher)

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, *New Faces, New Voices: The Hispanic Electorate in America*) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal *Political Analysis*, and co-director of the Caltech/MIT Voting Technology Project.

# State of Oregon Budget Information Non-Construction Program

Under the USE program, BALLOT*safe* will be offered by ES&S-SCYTL as a software as a service (SaaS) model in order to facilitate its adoption and use by jurisdictions across the United States in a cost effective manner. This model has several price components: Activation and Implementation Services Fees, Annual Right-To-Use License and Service Fees during the Research Program, and ongoing Right-To-Use License Fees and Per Ballot Processing Fees after the Research Program is completed.

For the initial Research Program, which includes the 2012 Election Cycle, the following deliverables will be provided:

Activation and Implementation Services	Software License and Services - 2012
System Activation & Initial configuration	Right-to-use license of BALLOTsafe
Definition of specifications	Election Specific System Configuration
Customization to meet specifications	Secure Primary and Backup Hosting
Installation and deployment	Help-desk / Technical Support
Integration with existing EMS	Enhancements, New Releases & Upgrades
Integration with existing VR	Account Management
Training & Documentation	
Project management	

#### Budgetary Quote for the participation in the USE Research Program

The budget for the State of Oregon to participation in the USE Research Program is \$300,000.00, as set forth in the table below. This budgetary quote includes the Activation and Implementation Services and Annual Right-To-Use License and Service Fees through the 2012 General Election Year.

Description	Fee
Activation and Implementation Services:	
Activation, Configuration, Customization, and Documentation	\$171,025.00
System Integration	\$50,000.00
Acceptance Testing	\$10,000.00
Project Management and Research Support	\$31,500.00
Training and Documentation	\$4,725.00
Total Activation and Implementation Services	\$267,250.00
Software License and Services – 2012: Right-to-use license of BALLOT <i>safe</i> , Secure Primary and Backup Hosting, Help Desk/Technical Support, Software Maintenance and Support for all elections through Nov 2012	\$67,000.00
Account Management and Research Data Support	\$28,250.00
Election Specific System Configuration	\$12,500.00
Total Annual License Fees and Services - 2012	\$107,750.00
Less: Discount	(\$75,000.00)
Total Fees	\$300,000.00

# **Ongoing Fees**

Following the initial phase of the Research Program, Ballot*Safe* is available for use and research in supporting UOCAVA voters, as well as disabled voters and absentee-by-mail voters. The ongoing Annual Software License and Service Fees will consist of a fixed price per year and a per ballot processing fee as follows.

Description	UOM	2013	2014	
Annual Right-To-Use Software License	License	\$67,000.00	\$70,350.00	
Outgoing Ballot Processing Fee	Each	\$1.00	\$1.05	
Incoming Ballot Processing Fee	Each	\$0.25	\$0,26	
Automatic Ballot Duplication Fee	Each	\$0.75	\$0,79	

#### The above fees entitle the State to the following:

- Right-To-Use License
- Upgrades, Enhancements, New Releases, and Bug Fixes (Except State-mandated changes)
- Help Desk & Troubleshooting Support
- Primary and Backup Secure Hosting
- Research Data and Support

#### **Total Fixed Fees**

The total fixed fees budget (excluding Ballot Processing/Duplication Fees) to the State of Oregon for participation in the USE research program through the 2016 General Election Year is \$581,568.00. However, the State Oregon has authorization to only request \$500,000.00 from the State Legislature. Oregon, working with its selected vendor and research partner ES&S/Scytl will diligently work in concert to reduce the over-all budget price provided through efficiencies and experiences gained to work within the \$500,000.00 funding provided through the grant process.

#### Return on Investment Analysis for the USE Research Program

Based on initial analysis of information gathered, Oregon expects over a 5 year period, to see a 49% return on investment. The enhancements and research being provided and conducted through the UOCAVA Systems Enhancement Research Program, cost and time savings will be realized for multiple costs items associated with the absentee voting process. Overall, the easier process and technology of the USE Program will enfranchise more voters such that the number of ballots processed and registrations will increase.

• Return on Investment – postal mail of ballots

Currently, ballots delivered by postal mail incur per-election personnel and capital expenditures to print, package, and mail the ballots. By providing electronic ballot delivery, established in a onetime development and integration effort, there will be less

costs over time as the cost to maintain the initial expenditure is much less than the perelection cost now incurred to print and mail ballots to the UOCAVA voters.

• Return on Investment – email of ballots

To support the email of ballots, it requires a significant per-election time investment from an IT official in the office to attach PDFs and address each email. By providing electronic ballot delivery via an online website, established in a onetime development and integration effort, there will be fewer costs over time as the cost to maintain the initial expenditure is much less than the per-election cost now incurred to print and mail ballots to the UOCAVA voters.

• Return on Investment – duplication of ballots

Currently, ballots returned by voters who receive them by email or fax must be duplicated manually. This normally takes 2 or more people at least 5 - 15 minutes to duplicate one ballot. This accounts for the time it takes to duplicate and verify correct duplication in front of witnesses. The automated ballot duplication provided by BALLOT*safe* provides an automated work flow which reduces the number of people and time it takes to duplicate a ballot. This process also reduces the errors which are introduced and expedites the accounting which must be done. This saves time and money invested in employing many permanent and temporary election workers to perform this task.

• Return on Investment – communication with voters

The online presence of BALLOT*safe* will provide UOCAVA voters the ability to retrieve jurisdiction specific communication in the form of messages, online chat, and help menus. This will reduce the amount of support required by dedicated personnel and, thereby, reduce per-election cost associated with providing assistance.

These cost and time savings will add up to a positive return on investment. Specifically, the jurisdiction will save more money over time, by reducing per-election costs, than the amount of the initial investment through the grant. The research and analysis conducting during the grant period will collect real statistics and provide a more quantitative ROI analysis based on improved data collection policies and procedures.

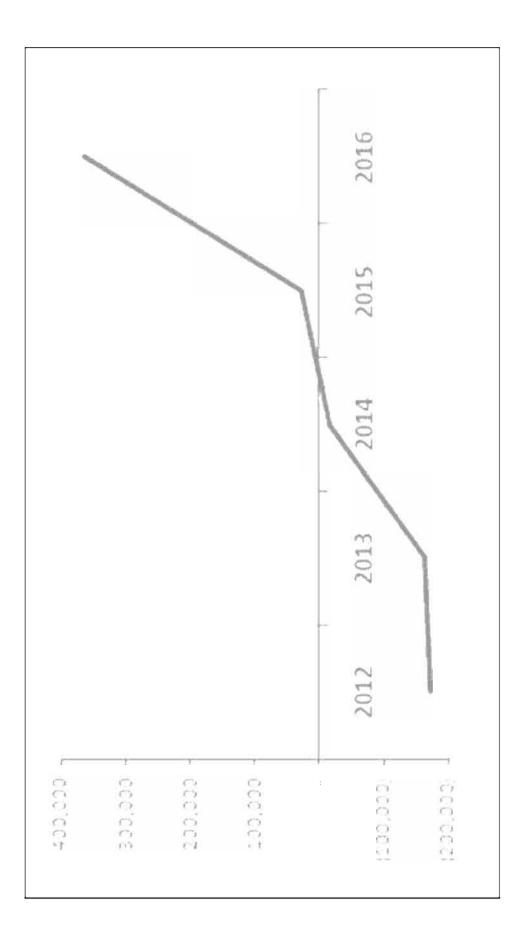
#### Initial Return on Investment

	2012	165	2034	3165	2005
BUDGET - actual costing	574,397	202,325	401.306	210,561	619,827
a) Direct Labor	388,420	132,609	265,081	135,274	404,191
1 Registration process	17,847	7,782	12 931	7.939	18.364
2. Ballot request process	116,295	39,153	79.088	39,940	121,017
3 Ballot return process	254,477	85.674	173.062	87,396	264,610
b) Administrative and Clerical labor	29,131	9.946	19,881	10,146	30,314
c) Fringe benefits and Indirect Costs	55,263	19,891	39.762	20,291	60.625
d) Travel					
e) Subcontracts/sub awards			,		
f) Consultants	-		L	-	
g) Materials and Supplies	91,468	32,334	68,580	36,365	115,694
h) Other direct costs	7,114	7,545	8,001	8,485	8,998
UDGET - new costing	747.362	192,302	255,620	165,430	284,325
a) Direct Labor	233,052	66,305	106.032	47,345	121.25
1. Registration process	10,588	3,891	5,172	2,779	5,508
2 Ballot request process	69,777	19,576	31,635	13,979	36,30
3. Ballot return process	152,686	42,837	69 225	30,589	79,44
b) Administrative and Clerical labor	34,958	9,945	15,905	7.102	18,18
c) Fringe benefits and Indirect Costs	34,958	9.946	15,905	7,102	18,18
d) Travel		.e.	-		
e) Subcontracts/sub awards			N <sup>1</sup>		
f) Consultants	385,245	86,167	87.145	88.182	89,28
Initial set up	300,000	-	-	-	
Annual subscription	70.000	70,000	70,000	70,000	70 000
Bailot processing	15,245	16 167	17 145	18,182	19,28
g) Materials and Supplies	54,881	16,167	27,432	12,728	34,701
h) Other direct costs	4.269	3,772	3,200	2,970	2,700
ost reduction	(172,965)	10,022	145,686	45,131	335,50
	-:30%	5%	36%	21%	,54%
Accumulated	(172,965)	(162,942)	(17,256)	27,875	363,377

ROI (Return on Investment over 5 years) =

49%

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#### Catalog of Federal Domestic Assistance Number: 12.217

BAA number: H98210-BAA-11-0001

 Title of proposal:
 Electronic Absentee Systems for Election Grant Applications

 CAGE Code:
 (b)(4)

 DUNs Number:
 (b)(4)

 Tax ID Number:
 (b)(4)

Applicant:	Salt Lake County Clerk
Sub Contractor:	Scytl USA LLC

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# Period of Performance: September 2011 to December 2016

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#### 2. Technical Approach and Justification

#### 2.1. Executive Summary

The Salt Lake County Clerk is conscious of the challenges facing our military and overseas voters and is committed to growing and adapting our services and supporting technologies to meet their continuing needs. Salt Lake County's participation in the Electronic Absentee Systems for the Elections Grant initiative will allow us to continue efforts to research and evaluate innovative technologies and associated services that we believe will improve, and increase the successful level of participation within this valuable constituency group. The Salt Lake County Clerk intends on addressing these challenges as well as others through the establishment of the UOCAVA System Enhancement Research (USE) Program.

The Salt Lake County Clerk's key program objectives include establishing and successfully improving electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The Salt Lake County Clerk also believes the efficacy of our efforts can be shared and will benefit other jurisdictions.

Considering Salt Lake County's background and current UOCAVA solution, we believe that working with Scytl as well as academic researchers from Cal Tech University and the University of Utah will best address our unique requirements and result in the most effective, innovative, repeatable, documented, and sustainable solution for Salt Lake County. Scytl has committed to providing a unique solution customized to fit the requirements of Salt Lake County.

Overall, we view the collaboration with Scytl, and their electronic absentee balloting product – BALLOT safe, as the best solution to overcome and eliminate the UOCAVA barriers which now face the affected voters of Salt Lake County. Its robustness, flexibility, usability, and innovation will pave the way to ensuring that the number of ballots sent equals the number of ballots returned successfully addressing our goals and objectives in the following section.

#### 2.2. Goals and Objectives

#### 2.2.1. UOCAVA System Enhancement Research (USE) Program Overview

The Salt Lake County Clerk proposes a UOCAVA System Enhancement Research (USE) Program with Scytl where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate in the ballot return process.

#### 2.2.2. Factors Achieved

The Salt Lake County Clerk believes that our unique assets, capabilities, locations, and personnel through the UOCAVA System Enhancement Research (USE) Program with Scytl will foster and develop products and processes which will lessen the impediments that exist for the UOCAVA voter and will strongly address the Evaluation Factors stipulated in the FVAP EASE Grants program. For example, these factors are achievable through the deployment and use of the BALLOT*safe* solution complimented with customizations for Salt Lake County and related research and analysis. Our research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

#### 2.2.2.1. Significance

Knowing that research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate, the USE Program will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- Voter Registration BALLOTsafe will work in coordination with any online voter registration system and through the use of tools and procedures will provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot Request BALLOT*safe* will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT*safe* to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.
- Absentee Ballot Delivery BALLOTsafe will utilize the ballot data from any Salt Lake County election management system and deliver the precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOTsafe online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.
- Absentee Ballot Marking BALLOT*safe* provides an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write-ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.
- Absentee Ballot Return and Tabulation BALLOT*safe* will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT*safe* will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assists in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately through BALLOT*safe* and through email notifications.

#### 2.2.2.2. Sustainable

The Salt Lake County Clerk is focused on constructed cost-effective and sustainable solutions which successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in Salt Lake County's assessment of sustainability shown below. The Salt Lake County Clerk believes these factors are achievable through a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. Salt Lake County will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the USE Program. Further information can be found in the ROI analysis provided in the Budget Proposal.
- The program and solution will be **logistically sustainable**. The USE Program will seek to realize operational efficiencies over the current processes through the BALLOT*safe* technology which will provide a lower level of effort which can be sustained even with decreasing budgets. Examples of this include easier exchange of ballot and voter information between technology systems, less effort and cost in the delivery of ballots electronically, quicker processing of returned absentee ballots, and quicker and more reliable replication of ballots upon return.
- The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform which relies on advances in cryptographic protections, advances in Java based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

By selecting the Scytl product offering of BALLOT*safe*, Salt Lake County is ensured of a long term commitment from a vendor who has a long history of election experience and can continue to provide updates and enhancements to the product for many years to come. Furthermore, by incorporating the cost for the USE Program through the year 2016, Dallas County is ensuring a consistent and sustaining offering to its voters and election officials. Also, utilizing multiple election cycles to gather and analyze statistics and feedback will strengthen the USE Program's findings and allow for a greater impact and significance. Specifically, the Dallas County Elections Office expects to support the following through 2016:

- Maintain BALLOT*safe* services with ES&S and Scytl through an annual Right to Use License
- Ongoing research and evaluation of BALLOT*safe* for each election cycle
- Generation of Election Analysis and Assessment Reports (EAAR) after major elections

#### 2.2.2.3. Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage which provides for the broadest impact to voters and election officials. Some advanced concepts which will provide greater impact to voters are:

- Sample Ballot The sample ballot feature of BALLOT*safe* allows voters the opportunity to access the jurisdiction's sample ballot before the election. Through the election official's interface, officials are allowed to publish campaign statements from candidates as well as additional information that will be available to voters in the sample ballot.
- News Feed BALLOT*safe* provides specific news feed to voters. The news feed is provided in a sidebar of the voter web site and includes news events generated by the local election official. As desired, the news feed may also be linked to FVAP or the jurisdiction's social media feeds.
- Accessibility BALLOT*safe* has been purposefully constructed to be in compliance with the applicable web accessibility standards and to provide an intuitive interaction when

being understood or controlled through personal assistive devices. Below are the usability and accessibility standards which BALLOT*safe* follows:

- Web Content Accessibility Guidelines (WCAG) 2.0
- o User Agent Accessibility Guidelines (UAAG) 1.0
- Section 508 of the US Rehabilitation Act, Web-based Intranet and Internet Information and Applications (1194.22)
- NIST Accessibility and Usability Considerations of Remote Voting Systems, Draft – June 28, 2010

#### 2.2.2.4. Strategic approach

The Salt Lake County Clerk has presented a credible hypothesis and will provide a well-defined and appropriate plan to test that hypothesis. The plan is further defined in 2.3 Schedule and Milestones and the Management Approach, Section 3. We believe the hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

#### 2.2.2.5. Innovation

The USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The Salt Lake County Clerk believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of BALLOT*safe*:

- Security. The groundbreaking cryptographic protocols inherent in BALLOT*safe* provide elections with the highest levels of security, in terms of voter's privacy, voter verifiability, election integrity, system availability, and access control. BALLOT*safe* provides security through the use of a physically secure data center, complete redundancy of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.
- Ballot Choice Barcode. BALLOT*safe* provides accurate and reliable automated remake of returned ballots with its ballot choice barcode feature. Using a barcode on a ballot generated through the voter's onscreen marking wizard, the ballot choice barcode can replicate the voter's selections onto the local jurisdictions optical scan readable ballot.
- Social Media Interaction. BALLOT*safe* provides mechanisms for the voter to interact with social media content (Facebook, Twitter, etc) through BALLOT*safe*. This is done through multiple concepts such as a Newsfeed and interactive sample ballots.
- FPCA barcode. BALLOT*safe* provides a feature whereby the voter can complete an FPCA through the BALLOT*safe* FPCA wizard with an absentee data barcode. This barcode provides for the automated exchange of the voter's information from the FPCA through an FPCA import module, and into the local voter registration processing queue. This reduces the need to manually enter voter information.
- UOCAVA community forum. With BALLOT*safe*, Scytl has established and will maintain a pipeline of ideas, techniques and best practices of election officials and their services for UOCAVA voters. This is done through a secure online data repository and message board.

#### 2.2.2.6. Scalability

The USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGi. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of:

- Usage increases in the number of voters and number of ballots styles it can support;
- Impact changes to and increases in the types of voters and their requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality which it employs.

Furthermore, our agreement with Scytl is to obtain all of the existing features and functionality of BALLOT*safe* regardless of our current need. With the ability to access and use features on an as needed basis thereafter, we are able to adjust our growth and use of the product in such a way that we can meet the demands of tomorrow as easily as the demands of today.

# 2.2.2.7. Collaborative

The Salt Lake County Clerk has designed the USE Program to be a collaborative program involving a key election technology provider –Scytl, reputable academic researchers from Cal Tech University and University of Utah, and other election jurisdictions through a data and experience sharing portal in BALLOT*safe*. This consortium of election officials, election service and system providers, and researchers will collaborate together to address and improve the absentee voting process. To do this, we will use a six-sigma approach to improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current processes based upon data analysis to create an improved, future state process.
- *Control* the future state process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

# 2.2.2.8. Cost Benefit Analysis

Each major component of BALLOT*safe* can separately, or in total, be evaluated for ROI against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

#### 2.2.3. Security Measures

The USE Program will provide administrative, technical, and physical controls to protect voter personal identifying information (PII) and sensitive election material. At a minimum, **administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by Scytl through the BALLOT*safe* solution. First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls and where it is under 24/7 physical and application monitoring to ensure the security, health and integrity of the system around the clock. The infrastructure, including all hardware, software, and security controls are also monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software to be free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to seamlessly verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect voters' identifying information from ever being associated with their ballot selections.

#### 2.3. Schedule and Milestones

The Salt Lake County Clerk has identified the following as the initial schedule assuming an award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

#### 1. Initiation and Planning Phase

Start Date: August 1, 2011 Duration: 45 days

The initiation and planning phase will initialize the project and introduce all stakeholders. During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown structure, statement of work with each sub-contractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

- a) Completion of Project Management Plan
- b) Completion of Quality Management Plan

#### 2. Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

With the program stakeholders, this phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success in this area. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution amongst the stakeholders. The approach will lead into a detailed requirements gathering and specification development effort to capture the analysis into quantifiable measures necessary to improve the UOCAVA voting process. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of these will be addressed directly through BALLOT*safe* while others will be addressed through policy changes.

Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization

#### 3. Technology Modernization

Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for the customization, activation, and outreach efforts in preparation for the first election and continuously through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase 2, BALLOT*safe* and other systems will be customized to address Salt Lake County's requirements such that UOCAVA voters are best supported.
- Voter Education During this phase, voters will be notified of the modernization and how it impacts them through multiple communication channels.
- Integration and Testing The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters.

Milestones:

- a) Technology Modernization Completion Presidential Preference Primary
- b) Technology Modernization Completion Primary Election
- c) Technology Modernization Completion General Election

# 4. Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the USE Program to enhance the technology and services provided to UOCAVA voters. Each progressive election will include greater enhancements to achieve the incremental goals established in phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental and overall goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan.

Milestones:

- a) Presidential Preference Primary Completion
- b) Completion of Election Analysis and Assessment Report Presidential Preference Primary
- c) Primary Election Completion
- d) Completion of Election Analysis and Assessment Report Primary Election
- e) General Election Completion
- f) Completion of Election Analysis and Assessment Report General Election

#### 5. Final Analysis and Reporting

#### Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase will collect the relevant data from the 2012 General Election(s) as well as reports and data from the previous elections. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of USE Program Final Report

# 2.4. Reports

#### 1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Salt Lake County Clerk will prepare quarterly programmatic and financial progress reports. For the purposes of the USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

The financial progress report will provided:

• Will be provided in accordance with project schedule and reports.

The following programmatic and financial progress reports will be prepared:

- a. Fourth Quarter 2011 Programmatic and Financial Progress Reports
- b. First Quarter 2012 Programmatic and Financial Progress Reports
- c. Second Quarter 2012 Programmatic and Financial Progress Reports
- d. Third Quarter 2012 Programmatic and Financial Progress Reports
- e. Fourth Quarter 2012 Programmatic and Financial Progress Reports
- f. First Quarter 2013 Programmatic and Financial Progress Reports

#### 2. Data collection points reports

There will be several data collection point reports prepared throughout the USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned

- Types and number of problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

- a. Presidential Preference Primary EAAR
- b. Primary Election EAAR
- c. General Election EAAR (will be incorporated in the Final Report)

#### 3. Final Report

The USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

## 3. Management Approach

## 3.1. Introduction

Scytl will provide the necessary technology and tools to allow Salt Lake County to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. The Salt Lake County Clerk intends on using an organized project management methodology with Scytl to achieve these goals in a sustainable and organized way. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, local election personnel, and election officials from other jurisdictions. This cooperative of the Salt Lake County Clerk, election officials, election service and system providers, and researchers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- Define the problem, the voice of the customer (i.e. the voter), and the project goals.
- *Measure* key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved, future state process.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

## 3.2. Project Organization

## 3.2.1. Project Director

The Salt Lake County Clerk will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

#### 3.2.2. Project Steering Committee

The project steering committee will be comprised of the project director, project manager, key personnel from Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with the strategic goals and objectives and key factors in Section 3.4.

#### 3.2.3. Project Manager

Scytl will serve as project manager for the USE Program. Scytl maintains a global team of PMI certified Project Management Professionals and Elections Experts with specific experience in election solution implementations. The Scytl Project Management Office (PMO) has extensive combined elections experience, which has allowed the PMO to develop election specific best practices to accommodate the unique and challenging aspects of the election industry. This team of professionals is trained to manage projects pursuant to the Project Management Institute's project management principles. Each Project Manager is supported by a team of Technical

Engineers, Subject Matter Experts, and Support Specialists to assure that each aspect of the project is managed effectively and efficiently.

## 3.2.4. Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project manager and will be responsible for data collection and analysis. The research team will form hypotheses and will report findings. All research products will be validated with the steering committee which will prepare the conclusions.

## 3.3. Project Resources

## 3.3.1. Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the USE Program, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department.

## 3.3.2. Academic Researchers

The USE Program will utilize outside academic researchers – Michael Alvarez and Thad Hall – for some of the research and analysis efforts. In their academic careers, they have focused on elections, voting behavior, election technology, and research methodologies. The Salt Lake County Clerk believes that the addition of these experts will enhance the quality of the program's research and assist in tackling some of the prevalent challenges facing democratic elections.

#### **3.4.** Project Strategic Goals

The UOCAVA System Enhancement Research (USE) Program will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

## **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.

- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), Salt Lake County will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

**<u>Plan</u>:** Implement tools and services provided by Scytl in a phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving Salt Lake County's capabilities to support our overseas voter population.

## 3.5. Research Methodology

The USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

## 3.5.1. Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis, considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

#### 3.5.2. Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies to better meet their needs. As a starting point, the Salt Lake County Clerk knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens who are located in remote locations. In addition, although active duty military members complete Federal Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, Salt Lake County citizens are likely to experience widely divergent voting experiences depending upon their country of residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries also varies widely. The aforementioned are but a few of the well known challenges faced by our overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

## 3.5.3. Technology Enhancements

While Salt Lake County is already aware of many areas where BALLOT*safe* can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of Salt Lake County's voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT <i>safe</i> will work in coordination with online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on time.
Absentee Ballot Request	BALLOTsafe will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOTsafe to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.	Traditional postal delivery and return of ballot requests introduce unpredictable delays into the process which delay future steps. Voters can often forget when a ballot request is due for an election or may complete it incorrectly.	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them correctly.
Absentee Ballot Delivery	BALLOT <i>safe</i> will provide online ballot delivery of precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT <i>safe</i> online portal provides instructions for all screens, a help and support section to assist with multiple help topies, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	Traditional postal delivery of ballots is lengthy and unpredictable. It is also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	The electronic delivery of ballots through a secure internet based portal will provide consistent access to eligible voters which will improve the successful completion and return rates of ballots.

Absentee Ballot Marking	BALLOT <i>safe</i> will provide an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write- ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.	Some absentee voters have difficulty understanding ballot content and completing ballots correctly. Voters with disabilities face significant problems marking paper ballots. Furthermore, manual duplication is often required of ballots which are returned. When a voter uses the onscreen marking wizard, BALLOTsafe provides a mechanism for the automated replication onto an optical scan ballot.	Voters who use an intuitive and accessible onsereen marking interface will have a higher probability of completing the ballot correctly which will increase the number of ballots returned successfully. The ballot replication mechanism with BALLOT <i>safe</i> will provide greater operational efficiencies in the return processing of the ballot.
Absentee Ballot Return and Tabulation	BALLOT <i>safe</i> will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT <i>safe</i> will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assist in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately upon processing through BALLOT <i>safe</i> and through email notifications.	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their ballot is returned and if it was accepted. Furthermore, without automated interfaces, there are delays in the processing and tracking of ballots.	The use of an online electronic portal to provide correct return information and return documents will improve the case and rate of successful return of ballots. Automated interfaces and the use of barcodes will shorten the processing delay and shorten the time it takes to provide tracking information to voters.

# 3.6. Performance Management

#### 3.6.1. Performance Management Approach

To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the USE Program goal and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- To manage the project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 3.4. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

## 3.6.2. Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success
Improve the rate of completed UOCAVA voting transactions from registration to ballot return.	At each step in the absentee voting process, the number of voters who complete each phase of the process increases. This will be measured on a per election basis, comparing previous election of that type to the current election. For example, the 2012 Primary Election will be compared with the 2008 Primary Election.
Increase the percentage of UOCAVA voters participating and voting in Federal elections.	For each Federal Election, there is an increase in percentage of UOCAVA voters who participate in at least one portion of the voting process.
Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.	Based on a comparison of the average failure rates for each stage in the absentee voting process with the failure rates of the current election, there is a decrease in the failure rate in each stage.
Provide tools and services that can benefit other jurisdictions.	The solution provided supports the legal, procedural, and technical requirements of other jurisdictions.
Provide security measures to protect users' personal identifying information and any transmitted election material.	Data collected through system audit logs, internal auditing, and interactions with voters does not indicate that any user's personal identifying information or sensitive election material was compromised in any way.
Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives	Reports provided through the USE Program include reliable data, complete analysis, and discerning conclusions for each of the objectives above.

## 3.7. Risk Management

## 3.7.1. Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- Risk identification. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis**. Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- Commence at the Project planning stage, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

• **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.

- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - The risk owner who is the person responsible for managing the response plan
  - The risk response strategy that will be used
  - The description of the mitigation or contingency plan
  - Any stakeholders impacted by the risk
  - The cost of the risk response
- **Risk Mitigation plans**: This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

## 3.7.2. Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated against.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- e. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

# 3.8. Current and pending project proposal submissions

Not Applicable

Title of proposal and summary: XXX		
Source and amount of fund	ling: XXX	
Percentage of effort devote	d to each project:	XXX
Identity of prime applicant:		
List of subcontractors:		XXX
Technical contact:		
Name: XXX		

Address:	xxx
Phone:	XXX
Fax:	XXX
eMail:	XXX

Period of Performance:	XXX
Award period:	XXX
Award amount:	XXX
Man months:	XXX

Relationship (if any) with the current request:  $\boldsymbol{X}\boldsymbol{X}\boldsymbol{X}$ 

## 3.9. Qualifications

To assist personnel from Salt Lake County, the County has selected Scytl to provide operational, research and technology support with their key personnel list below. Salt Lake County believes Scytl has the best product and personnel to provide the services and support sought for the EASE grant execution in Mississippi.

#### 3.9.1. Introduction Jason Yocom, Salt Lake County Chief Deputy

Jason was appointed to Chief Deputy Salt Lake County Clerk in 2004, where he acts as the chief administrator and chief of staff overseeing the Elections, Marriage and Passport, and Council Clerk divisions of the Clerk's office. Jason is currently the Chair of the Board of Directors for the Salt Lake County Employees' University, Chair of the Salt Lake County IT Governance Committee, member of the Salt Lake County Communications Committee, co-chair of the Internal Communications Committee, and past chair of the External Communications Committee. He is a member of the Salt Lake County Performance Management Task Force and the Customer Service Champions Committee. Prior to serving as Chief Deputy Clerk, Jason served as an assistant to a Salt Lake County Council member and as a Management Analyst for the Salt Lake County Clerk. Jason graduated from Westminster College in Salt Lake City with a Master of Professional Communication, specializing in public relations planning and management and holds a Bachelor of Arts in English and Philosophy from the University of Utah.

## Rozan Mitchell, Salt Lake County Associate Director

Rozan began her career at Salt Lake County in 2005. As the Deputy Director of Elections, Rozan oversees projects such as voter registration data entry, absentee voting, early voting, poll worker training and poll worker recruitment. Prior to coming to Salt Lake County she was the Deputy Director of Elections for the State of Utah where she worked for six years. Rozan has attended Dixie State College and University of Phoenix.

#### 3.9.2. Key personnel Paul Miller, Business Development Manager, Scytl USA, LLC

Mr. Paul A. Miller, a former State and County Elections Official, is a highly qualified Project Manager, Elections Subject Matter Expert, and Technologist with more than 30 years'+ experience in technology and software development industries, foremost being in State and County Government Elections. He has been called upon by the EAC time and again, to provide Election Subject Matter expertise to panels, workshops, working committees, and testimony before the EAC commissioners. He was selected by the National Association of State Elections Directors (NASED) to serve as one of two NASED representatives to the Technical Guideline Development Committee (TGDC). The TGDC is a small panel of national experts tasked to work with the EAC and NIST to draft next generation voting systems standards.

Mr. Miller's election related experience has made him a nationally known subject matter expert within the elections community. Beginning with his tenure as Assistant Elections Superintendent-Data Processing in King County to Senior Technology/Policy Analyst at the Washington Secretary of State, he has gained a comprehensive knowledge of County Administrative Processes, Election Processes and Procedures, State and local Voter Registration Databases, Voting Systems, State Certification procedures, the Federal Testing and Certification Processes, Voluntary Voting System Guidelines and Federal and State Election Statutes. He has led innovative changes to county elections processes, most notably the most extensive use of its day in the nation of high-speed scanning to sort, process, and validate signatures in the absentee return ballot processes. He led the state's efforts to completely modernize its petition/signature checking processes, upgrade its voting system certification program in a high-visibility environment, and develop the state's HAVA- compliant Voter Registration System.

After being the state project manager for the 2010 implementation of U.S. Federal Voting Assistance Program's Electronic Voting System Wizard project in Washington state, Mr. Miller joined Scytl as Business Development Manager in April 2011.

## Aaron Wilson, Project Engineer, Scytl USA, LLC

Mr. Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

## Thad E. Hall, Ph.D. (Researcher)

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* (Princeton University Press) and *Abortion Politics in Congress: Strategic Incrementalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

## R. Michael Alvarez, Ph.D (Researcher)

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, *New Faces, New Voices: The Hispanic Electorate in America*) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal *Political Analysis*, and co-director of the Caltech/MIT Voting Technology Project.

## **Technical Proposal**

- 1. Catalog of Federal Domestic Assistance (CFDA) Number: 12.217
- 2. BAA Number: H98210-BAA-11-0001
- 3. Title of Proposal: Proposal to Enhance Capabilities for UOCAVA Voters in California
- CAGE Code: (b)(4)
   DUNs Number: (b)(4)
- 6. Applicant: County of San Bernardino
- 7. Partner Contractor: None
- Technical Contact: James Hakala, Business Applications Manager, County of San Bernardino, Registrar of Voters Department, 777 E. Rialto Avenue, San Bernardino, CA 92415-0770, Phone: (909) 387-2078, Fax: (909) 387-2022. eMail: <u>jhakala@rov.sbcounty.gov</u>
- Administrative Contact: Michael Scarpello, Registrar of Voters, County of San Bernardino, Registrar of Voters Department, 777 E. Rialto Avenue, San Bernardino, CA 92415-0770, Phone: (909) 387-2083, Fax: (909) 387-2022, eMail: <u>mscarpello@rov.sbcounty.gov</u>
- 10. Period of Performance: Date of Award to December 31, 2012

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## **TECHNICAL APPROACH AND JUSTIFICATION:**

## **Executive Summary**

San Bernardino is a county with approximately 2 million residents, 800,000 registered voters and three major military installations, and it is pleased to submit this application for a grant from the Electronic Absentee Systems and Elections (EASE) program in an effort to support our efforts to make the voting process easier and more efficient for absent military and overseas citizens to request, receive and return their ballots. We believe that UOCAVA voters deserve the same chance to vote privately, independently, securely and in a timely fashion as all voters and that the program that we will build with grant funds will help us achieve this goal. In addition, we believe that our research will provide meaningful research data for FVAP now and in future elections over the years.

The tools developed with the EASE grant will address each mandate as required by UOCAVA, including easing the registration and absentee ballot sign up process, transmitting the ballot electronically, providing UOCAVA voters with the opportunity to electronically track their ballot, ensuring that ballots are transmitted a full 45 days prior to an election, and, finally, providing reporting on the data collected.

Specifically, it will allow for ballots to be delivered, received and processed more quickly. As a result, we foresee an increase in the number of UOCAVA voters served. Our project approach is based upon data from EAC and FVAP, which demonstrates that ballots delivered by mail are less likely to be received and mailed back in time to be counted. Initial research demonstrates that electronic transmission and various methods for returning ballots reduce the risk that the ballots will not be counted. In addition, electronic marking of ballots ensures that fewer ballots are spoiled, and, therefore, more ballots are counted.

Through the use of new technologies, processes will be replicable so that other jurisdictions may also serve their important UOCAVA population in a similar manner. These jurisdictions may include those of similar size from the same state or those utilizing the same VRS or EMS solutions. There is a clear cost benefit and return on investment with regard to sustainability and scalability. This program will reduce the cost of serving voters over time, and, at the same time, it will increase the number of UOCAVA voters who have access to a ballot that can be reliably counted.

#### **Goals and Objectives:**

#### **Research Module 1: Online Ballot Access**

# Problem: Failure rates experienced by UOCAVA voters associated with ballot delivery Current Process for UOCAVA Absentee Registration and Ballot Delivery

- UOCAVA voters register to vote, typically by using a Federal Form 76, FPCA or State Absentee Registration forms. These forms serve as both a registration
  - State Absentee Registration forms. These forms serve as both a registration document and as well as a request for an absentee ballot.

- Facsimile ballots are mailed via United States Postal Service no later than 45 days prior to election. Return envelopes are provided. Upon request, facsimile ballots are emailed (PDF) or faxed to voters. Replacement or follow-up ballots are emailed or faxed as well.
- Voter returns voted facsimile ballot by mail or by fax, pursuant to state law. The votes on the facsimile ballots are manually duplicated onto official ballots prior to counting.
- Assistance to UOCAVA voters is provided via our website and webmail address, as well as by telephone.

## **Goals of Online Ballot Access**

- Compliance: Provide a full, Section 508, and HAVA compliant ballot to UOCAVA voters
- Advanced Availability: Ensure the availability of the election on-time, in compliance with the MOVE Act's 45 day voting period requirement
- Ballot Accuracy: Ensure all of the ballot styles, contests, and candidates are correct
- Preference marking accuracy: Eliminate human error by preventing voter marks which spoil ballots
- Reliability: Ensure the availability and accuracy of the election remain in place for the full 45 day time period
- Participation: Higher percentage of ballots included in the final count due to lower error rates. We derived this by comparing to a similar, previous election. Our estimation of the reduction of failure rates for UOCAVA voters is: 35% (800 UOCAVA voters)
- Simple Receipt Tracking: Allow voters to track their ballot online at each stage in the process

## **Process Description**

- Provide a full, Section 508, and HAVA compliant website for UOCAVA voters to identify themselves
- Upon authenticating, the voter is provided with their unique ballot style, based on their registration
- Provide voter with interface to mark ballot, including logic preventing over-voting and warning of under-voting
- Provide voter with the opportunity to confirm their ballot
- Provide voter with ability to print their marked ballot, oath and return instructions. Return of ballots would be allowed through the mail system or through a toll free fax number
- Voter will be provided with an optional survey to provide feedback about their voting experience
- Voter will be provided the opportunity to track the progress of their ballot in the system

#### Justification for Pursuing this Strategic Approach

Ballot delivery has proved to be difficult for Election Officials serving their UOCAVA voters. Research in San Bernardino County has shown that approximately 35% of UOCAVA voters requesting absentee ballots never return their ballots. We assume that a certain percentage of these voters did not cast their vote because of their inability to receive mail in a timely manner, particularly for voters who are deployed in remote and/or hostile areas. With the electronic delivery of ballots, the time a ballot is in transit will be greatly reduced.

#### Scalable, Sustainable, and Successful

- Scalable: Delivery of ballot will be fully automated providing a highly scalable platform
- Sustainable: After setup, the reoccurring cost should be maintainable by count
- Sustainable: As a fully-hosted and monitored solution, there will be no need for dedicated county IT staff, servers, software upgrades, etc., resulting in lower cost
- Success: Multiple vendors have successfully implemented the online delivery of ballots in the past with little or no problems

## Security measures

- Transmission: All information transmitted between the voter's browser and the election server will be secured utilizing the encrypted Secure Socket Layer (SSL).
- Encrypted Storage: All voter-related data will be stored in encrypted containers
- Secure Policies: The National Institute of Standards and Technology's (NIST) guidelines for encryption, threat modeling, physical server security, and tamper-detection will be followed
- Physical Security: All hardware systems associated with an election will be located within a secure facility with redundant power supplies, internet connections, and environmental protections
- Voting preferences will never be stored or saved on the server
- Election material will never be transmitted over the Internet

## **Research Module 2: Automated Ballot Remaking**

# Problem: Paper ballots returned to San Bernardino require a manual transcription process.

Ballot remaking drives higher staff, time, and cost requirements to serve UOCAVA voters, and is more prone to human error than an automated process.

#### Solution: Implementation of commercially available software and hardware tools.

We intend on purchasing and implementing one of the many commercially available software and hardware tools that allow for the elimination of the time-intensive process of remaking ballots. These tools automate the process of the remaking of ballot print-outs returned to our office from our UOCAVA voters.

#### Goal: Reduce staff, time, and costs for ballot remaking

#### **Process Description**

- Commercially available software tools automate the process of reading a mailed absentee ballot and translating it to language that can allow for the automated reprinting of the voted ballot.
- Commercially available ballot on demand printers allow for the automated reprinting of the voted paper ballot onto a 110 lb. ballot card that is optically scanable.
- The reprinted 110 lb. ballots will be run through our Dominion ballot scanners

## Justification for Pursuing this Strategic Approach

• Paper ballots returned to the jurisdiction currently require a time-consuming manual transcription process

## Scalable and Sustainable

- Scalable: Commercially available barcode scanning will allow us to process more UOCAVA ballots with less staff and lower costs
- Sustainable: The one time purchase of ballot printers will allow for their use in future elections

## Security measures

• All digital barcodes on voted paper ballots will be required to be encoded with ballot preferences only. No personal information will ever be stored within any digital barcodes

## Module 1 & 2 Project Information

## Schedule and Milestones

Milestones in the project shall consist of the following for each election during the EASE grant time period:

- RFP from vendors
- Awarding of contract to selected vendor
- Kickoff Meeting the first meeting after the contract has been awarded, during which team members are introduced, stakeholders documented, and key election project properties defined
- Data Delivery San Bernardino County provides vendor with data
- Election Logic and Accuracy Testing the completion of client User Acceptance Testing, after which the election is locked for voters
- Election Go Live the first day when voters can vote in the online election
- Election Close the final day of voting in the election
- Reporting upon close of the election, the research data will be aggregated and a final report will be written

## **Reports:**

- Voter Activity: The Voter Activity Report provides insight into system use. This includes:
  - o Voting Activity / Hour
  - o Voting Activity / Day
  - o Total Voting Activity (within date range)
- Voter Participation: This report provides
  - Turnout by District
- Voter Locations: Report showing the source location of voting activity. Reports are based on the IP address, Source City, Source Domain

## MANAGEMENT APPROACH:

#### **Data Analysis**

Upon the conclusion of all elections, data will be analyzed to measure the effectiveness of each election.

#### **Project Management Reports**

Regular reports on project management milestones, as well as reports regarding financial progress of the project, will be provided to FVAP as key milestones are reached.

#### **Measurement of Performance**

- Increase in percentage of ballots successfully returned by UOCAVA voters will be measured by comparing UOCAVA return rates from the 2008 Primary and General Elections to the 2012 Primary and General Elections and performing a statistical analysis of whether any change in ballot return has been statistically significant.
- Reduction of staff, time, and costs associated with ballot remaking will be measured by comparing the same against manual transcription.

#### **Financial Management**

This project will include financially-based milestone deliverables. Payment to the vendor will be due upon successful completion of predefined acceptance tests for each milestone.

#### **Risk Management**

Risks for this project will be maintained using a risk register, with identified risks listed along with impact, probability, and mitigations.

#### BUDGET PROPOSAL

#### **Itemized Budget**

Direct Labor	\$0
Administrative and clerical labor	\$0
• Fringe Benefits and Indirect Costs (F&A, G&A, etc.)	\$0
Travel	\$0
Subcontracts/sub awards:	
<ul> <li>Electronic Ballot Delivery Software License</li> </ul>	\$100,000
o Annual Maintenance	\$ 20,000
<ul> <li>Software/Hardware for Automated Ballot Remakin</li> </ul>	ig \$ 60,000
<ul> <li>Annual Maintenance/licensing</li> </ul>	\$ 6,000
<ul> <li>Vendor support</li> </ul>	\$ 4,000
Consultants	\$0
Materials and Supplies	\$0
Other Direct Costs:	
<ul> <li>Voter Education</li> </ul>	\$10,000
TOTAL COSTS PROPOSAL	<b>\$200.0</b> 00

#### **CONSIDERATIONS**

#### Debarment and Suspension

One of the elected members of the San Bernardino County Board of Supervisors is Supervisor Neiland Kenneth Derry. On or about April 26, 2011, the California Attorney General's Office filed a criminal case entitled People v. Neiland Kenneth Derry, FSB1101877 in San Bernardino County Superior Court. The charges are violations of the following code sections: Penal Code section 118 – Perjury (felony); Penal Code section 115 (a) – Procuring or offering false or forged instrument for record (felony); and Penal Code section 84302 – Contributions by intermediary or agent (misdemeanor). As a result of these charges Supervisor Derry has been suspended by the Federal Highway Administration (FHWA) as of May 19, 2011. By way of correspondence dated May 19, 2011, Supervisor Derry has voluntarily recused himself from any participation with any items or actions involving federal funding. By way of correspondence dated May 25, 2011 from Special Counsel to FHWA, Supervisor Derry's recusal is sufficient and the County's ability to participate in federal programs and projects is not affected.

#### **Technical Proposal**

- 1) Catalog of Federal Domestic Assistance Number: 12.217
- 2) BAA number: HQ0034-FVAP-11-BAA-0001

   (also has been listed with BAA number H98210-BAA-11-0001)
- Title of Proposal: Upgrading Local Support Documents, Tracking and Procedures for FVAP Ballots for Long Term, Sustainable Improvements in Successful Military, Overseas and Federal Voting.
- 4) CAGE Code and DUNs Number: (b)(4) and (b)(4)
- 5) Contractors and/or Sub Recipients: County of Santa Cruz (in the capacity of the primary applicant) and Transcend Translation
- 6) Technical contact: Tricia Webber, 701 Ocean St Room 210, Santa Cruz, CA 95060, (831) 454-2409 phone / (831) 454-2445 fax, <u>tricia.webber@co.santa-cruz.ca.us</u>
- 7) Administrative/ business contact: Gail Pellerin, 701 Ocean St Room 210, Santa Cruz, CA 95060, (831) 454-2409 phone / (831) 454-2445 fax, gail.pellerin@co.santa-cruz.ca.us
- 8) Proposed period of performance: award to December 4, 2012

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## TECHNICAL APPROACH AND JUSTIFICATION

#### **Executive Summary**

The Santa Cruz County Clerk and Elections Department is requesting funding for upgrades to the local support documentation, tracking systems and internal handling procedures for ballots covered under the Federal Voting Assistance Program (FVAP). The goal is to create a long term, sustainable program that improves successful voting for military, overseas and federal voters. After analyzing ballot statistics from the 2/2008 Presidential Primary, 11/2008 Presidential General, 6/2010 Gubernatorial Primary, 11/2010 Gubernatorial General, and the primary and general elections for a special vacancy in State Senate District 15 in 2010, trends have been identified that demonstrate an increased failure rate for FVAP voters versus the general population. The programmatic improvements being proposed address the most common areas of failure and also look at anecdotal experiences from office staff relating to break downs in the system or an increased number of correspondences on certain issues. The goal is to reduce the number of voters "lost" due to change of addresses and the number of ballots rejected for being received too late or incomplete. The proposed improvements are in the following areas:

- Provide detailed information on registering, voting, and changes in eligibility to military recruiters, parents and families of military servicepersons, passport agents, overseas voters and American citizens living abroad by creating packets for distribution on our website and in hard copy which should educate voters and increase participation.
- Upgrade the digital tracking methods and information collected for FVAP voters via a new contact form and integrating it with the Election Information Management System (EIMS) to better address changes of address when voters are abroad.
- Establish a dedicated computer to manage safe and secure transmission of electronic ballots via secure email and an isolated fax machine which should increase the security and privacy of the ballots, while making the ballots easier to obtain and return in a timely manner.
- Update internal ballot handling procedures to include the latest information on FVAP laws such as transmission methods, signature verifications, required supplemental documentations, etc. to ensure that every eligible vote is fully counted.
- Strengthen the dialog with the military, customs officials, and other parties that interface with FVAP ballots to reduce barriers, where possible, particularly in the area of delivery delays.

Two rounds of testing are proposed to both volume test the digital capacities and test the effectiveness of the new processes. Additionally, the Presidential Primary and General Elections will be conducted during this period which will help test the improvements.

When the final products are refined, the resulting documents and processes should be sustainable for little to no ongoing costs. It is anticipated that the improvements suggested should increase the number of valid registrations and the number of counted ballots by an estimated 3-10%. The work products and processes developed here should be scalable for other counties that do not have military bases, regardless of size.

## Goals and Objectives

As the local election officials for the County of Santa Cruz, the Elections Department has the legal responsibility to ensure the rights of Uniform and Overseas Citizen Absentee Voter Act (UOCAVA) voters are enforced. While they vote by mail, UOCAVA voters have special rules, statutory deadlines, and handling procedures. Electronically, voters need the ability to register to vote, request a ballot, transmit ballots, and check on the status of their ballots. Officials are required to make sure that ballots are issued between 60 and 45 days prior to the election and report on UOCAVA voter program topics such as tracking the receipt of the ballots, registrations and ballot rejections. Additionally, it is the department's responsibility to notify voters of rejected ballots, and the reason why, as well as handling the Federal Write-In Absentee Ballots.

There are four individual projects being proposed to assist in meeting our statutory requirements. Each project will be discussed separately, though all work collaboratively to reach the end goals. Because funds may be awarded on a project by project basis, a less than fully funded application may result in less than full results yielded over the course of the award. When possible, the programs have been developed to stand on their own, though some overlap does exist.

A key component to successful implementation of any work being done will be opening and ongoing dialog with the military recruiters and local Service Voting Action Officers for the branches of the armed forces, customs officials, postal officials, the Department of Defense, the California Secretary of State, local universities and colleges, passport acceptance facilities, and other parties that interface with FVAP registrations or ballots to reduce barriers, where possible, particularly in the area of delivery delays or "lost" voters. To this end, meetings would need to be held either in person, via conference calls, or through email exchanges for the various projects that are being proposed so that the information disseminated is accurate, useful, practical, and relevant to the target audiences. With participation of these agencies and entities, the final work products discussed below should meet the needs of the UOCAVA voters by bolstering participation from these groups in the dissemination of the information which they had a hand in shaping.

## Project 1 Internal Procedural Upgrades

Significance and Approach: During the last several years, a great deal of research and gathering of best practices has occurred in the area of FVAP eligible voters. Laws that govern FVAP voters have had many changes in the last few years including the Help America Vote Act (HAVA) and Military and Overseas Voter Empowerment Act (MOVE) Act. Additionally, with the changes to state laws regarding ballots, the current best practices documents in the state and county are out of date. Updating the procedures with current information as well as translating them into plain language and posting them online would increase transparency and voter confidence, reduce staff errors in inserting the required documents, and overall improve consistency between elections.

The following documents that need to be drafted or revised for the County of Santa Cruz are:

- UOCAVA Voter Registration Handling Procedure Manual
- UOCAVA Ballot Issuing Guidelines
- UOCAVA Ballot Acceptance Handbook
- UOCAVA Returned Ballot Handling Procedures

• Envelopes for UOCAVA ballots

Staff time would be required to do research on the new laws, updating the manuals, and posting them to the web as well as a small duplication budget for internal copies. Staff will also be responsible for translating the documents into plain language. Should California have a special fall election, or should the primary election be moved to a date other than June 5, 2012, then a plain language translation company, Transcend, would be contacted to do the translation for the County.

Additionally, the Santa Cruz County Clerk, Gail Pellerin, is the President of the California Association of Clerks and Elections Officials (CACEO). The CACEO released a best practices manual in 2007 which needs to be updated. To accomplish this Santa Cruz County would be working with other counties in the state to gather the current information, samples of work being done by other counties and updating the existing document which is disseminated on the CACEO website for all 58 counties in California.

A travel budget would be necessary for site visits and attending meetings with other local officials, as well as meetings to understand the implementation of the new laws and regulations by partnering agencies such as the Department of Defense, the branches of Armed Services, Customs Officials; Postal Workers, the Election Assistance Commission, and the California Secretary of State. This would include rental cars, parking, hotels, airfare, cab fees, per diems, and other standard travel costs.

By updating and improving the instructions for election workers, the UOCAVA voters would be better served which would result in more voters being registered in a timely manner, sent the correct ballots, and having those ballots returned and counted in a time efficient manner while protecting the voter's privacy.

- Innovation, Scalability, Collaboration and Sustainability: These improvements would be available for the first time for voters who are unable to come to the office to visit us in person. By posting the procedures online, voters would be able to understand how their vote fits into the whole of the process and how to ensure their ballot is fully counted. The procedures produced would be easily replicated and adapted by any county that does not have a military base. With some modifications, counties with military bases could also use the procedures. When working with the other counties to update the CACEO manual, the resources and experience of all 58 California counties will be tapped. There would be no ongoing costs for these manuals and they would remain valid until the laws change, at which time they would be easily upgraded at little additional cost.
- *Potential Return on Investment:* The return on the initial investment would be significant as training costs would go down, transparency and therefore voter confidence would go up with a low initial cost and minimal ongoing cost.

## Project 2 Upgrading Digital Tracking Methods

Significance, Impact, Innovation, and Approach: Non-UOCAVA voters have a safety net in National Change of Address and Third Party Change of Address programs which catch them when their addresses change and they fail to reregister. This net keeps them in the voting process by alerting elections officials to the voter's new address and allows us to contact them and get them reregistered. UOCAVA voters have no such safety net. Using statistics from the 2008 and 2010 primary and general elections, 5.18% of ballots returned to the elections office are returned unvoted as undeliverable. Additionally 31.21% of all UOCAVA ballots are not returned at all. Combined, this is a 3.71% higher failure rate than the 14.49% of regular voters in similar situations. Santa Cruz County is proposing creating a new voluntary form that would be sent to all current and any future UOCAVA voters requesting that they give us a third party to contact in the event that their ballot is returned as undeliverable or in the event that their email address is found to not work. By upgrading the county's digital tracking system to be able to capture this data, it is hypothesized that the number of correctly registered UOCAVA voters will increase over time and number of UOCAVA voters that remain successfully registered and therefore return ballots will also increase. Additionally, by having better voter information, less personal information will be sent overseas therefore making the process more secure.

By using the data gathered from the simple form, via hard copy, the internet, and email, the county would then be able to use the third party contact or email address gathered from the forms to follow up on ballots that are returned undeliverable. Additionally California Elections Code Section 3100 defines UOCAVA voters as permanent VBM voters and states that their applications shall be handled according to the other permanent VBM code sections. California Election Code Section 3206 requires election officials to purge permanent VBM voters from the permanent VBM system if they fail to vote in two consecutive statewide general elections. With the information gathered on the form, the department would be able to send notifications to the UOCAVA voters on the same schedule as the other permanent VBM voters, easing procedures and giving the UOCAVA voters the greatest opportunity to remain currently and accurately registered over time.

In order to accomplish these things, the County would need to "test" the system by sending all current UOCAVA voters information on the program and the form. This test would serve three functions:

- 1. Purging voters who are no longer at the mailing addresses on their FVAP cards.
- 2. Gathering voters' emails and third party contacts for future use.
- 3. Volume testing capacity of the computer system.

The test would last 60 days, which is the time allowed for standard UOCAVA balloting.

- *Scalability and Sustainability:* Due to the simplicity of the third party solution, the program produced is completely able to be integrated with any system, either electronically, or as a hard copy form attached to the paper applications, which means there is no additional software costs. Regardless of the size of the jurisdiction, the ability to implement and administer this process over time for virtually no additional cost should mean the program becomes self-sustaining.
- *Potential Return on Investment:* This process will yield the largest return on investment of all the programs proposed. The ease of sustainability will mean that for a very small initial investment, the county will be able to address the two largest problems with UOCAVA voters and be able to virtually eliminate undeliverable ballots and reduce the number of ballots not returned due to mail failures.

## Project 3 Dedicated, Isolated, Secure Electronic Balloting Station

Significance, Impact, Innovation, and Approach: Currently, Santa Cruz County accepts faxed ballots and emails ballots to voters using the normal office equipment which has low levels of security. The machines are available to anyone in the department and therefore have a risk associated with each ballot being seen or handled by unauthorized staff, or of having portions of the submitted materials separated or lost before being received by the VBM section of the office. Since the ballots are being sent to voters on non-secure email, there is the potential, though remote, that the ballots could be intercepted or tampered with. The County is proposing establishing a dedicated computer with an associated fax with higher levels of security to better protect the secrecy and security of the ballots. The computer would be password protected and only contain the software (Microsoft Windows, Microsoft Office, Adobe Reader, virus protection software, Internet Explorer, and the secure email software) necessary to send the ballots to the UOCAVA voters and to receive them back. Since the computer and fax would only be used for UOCAVA purposes and it would be isolated within the office and the staff assigned to work on it would be limited only to senior VBM personnel, the security and secrecy of the ballots would be greatly improved. Also, by not commingling the returned ballot faxes with other faxes that are being received at the same time, the instances of ballot materials being separated or lost would be reduced as well. Furthermore, by having a dedicated printer, ballots would be printed on official ballot paper pursuant to California Election Code Section 3103(b).

California currently has Senate Bill 908 which is moving through the legislature with bipartisan support which would allow the email return of UOCAVA ballots. By moving to the secure email system used by the County Health Department for HIPPA compliance, the eventual return of ballots via this manner should also be assured. By limiting the software placed on the computer to include only the reader version of Adobe's software, a ballot that is sent as a pdf file would not be able to be tampered with. If the bill passes, this set up would afford the voter the most secure ballot transmission option of all the available delivery methods open to them.

In addition to these benefits, the isolated computer and email will make sure that UOCAVA votes have a single point of contact for questions and information which would help to provide correct and consistent information.

Once a dedicated computer and email are established, the County can further expand the emailed ballot program to a wider UOCAVA audience. The speed of emailed ballots would greatly improve the chances of UOCAVA ballots arriving in a timely manner via regular mail, and would offer the additional benefit of allowing the elections office to be able to contact the voter quickly if there is a problem with their ballot submission, such as a missing oath or a corrupt file. The ability to do a "second" ballot would be a new improvement for the UOCAVA community. Additionally, this process benefits your "on-the-move" UOCAVA voter, such as someone deployed to a combat zone or someone who is traveling to a great number of locations during the 60 day window for ballot transmission.

While the proposed computer set up would be for Santa Cruz County voters only, the documentation, configuration and processes would be a model for others to follow.

The system would need to undergo stress testing to assure that it could handle a large number of responses in a short time, as is common with VBM ballot returns by mail and at the polling

places. Two tests would be conducted. The first test, as described in Project 2, would be to send all current UOCAVA voters information on the new system and the form developed in Project 2. The second test would be for the voters who have opted in for the email delivery of ballots. This test would consist of a simulated ballot being sent to email voters via the new delivery system wherein they would "vote" and return the "ballot". Regardless of whether or not CA SB908 or a similar bill passes and takes effect prior to this testing phase, the test would include the return of "ballots" so that it could be determined if the ballot design is effective and the instructions are clear. The test has the added benefit of field training the voters on what to expect for future elections. The test would last approximately 14 days to simulate the rapid distribution of ballots which is required to happen between 60-45 days prior to an election. Additionally, it has the added benefit of testing the return rate expected via the email system should online returns be authorized.

- Scalability and Sustainability: While Santa Cruz County is a relatively mid-size voting population, the set up described here could easily be scaled up for larger sizes or be modified for smaller jurisdictions. The upkeep costs would include licensing fees for the secure email and use fees for the analog fax line. Due to the low memory and hardware requirements, the computer should last a very long time without needing to be replaced. Additionally, with the increasingly warm reception to email returns of UOCAVA ballots, should that become legal, the system would already be in place to handle that workload with no additional costs.
- *Potential Return on Investment:* For a relatively low initial investment, the potential services and security upgrades for the voters are incredible. The ability to issue second ballots, service votes with no fixed mailing address, and quickly address missing information clearly provides a very high return on the investment. The testing of the online system would prepare the County for the heavy volume associated with presidential voting years, ensuring smooth voting for the UOCAVA voters without ever risking ballot issues during a real election.

## Project 4 Informational Packets for UOCAVA Voters, Their Families, and Service Providers

- Significance, Impact and Approach: Every election the County receives phone calls from frantic parents, students and voters who find themselves or their loved ones away from the County and unable to vote in person or perhaps unable to receive regular mail. Most of these phone calls are received too late to help the voters receive ballots. An outreach program to catch the potential UOCAVA voters before they leave the county would remove significant barriers to participation. Because anyone can become a UOCAVA voter by choosing to travel, studying, or being deployed abroad, the strategy the county would employ would entail developing an informational packet, in plain language, possibly in Spanish as well, that could be provided to the potential UOCAVA voter by the group that is allowing or causing the travel abroad as well as posting it to the county website. The agencies that would be targeted are:
  - Local Military Recruiters
  - Passport Agents in the local jurisdiction
  - Local Study Abroad Programs
  - Local International Companies
  - Parents and families of Military Servicepersons
  - Expatriates and Students abroad
  - Other interested parties that provide services to people traveling abroad.

The information packets may include such items as posters, fliers, pamphlets, handouts and internet postings. The topics covered in the materials would include:

- Who is eligible to participate
- What participation means
- How to register
- How to get a ballot
- How to return a ballot
- Where to get more information and/or forms

Prior to creating the packets, the County would need to meet with some of the local partners in the armed forces, at the universities and the postmaster to discuss how to target the groups they serve. The information gathered at those meetings would influence the way in which the materials are designed and distributed so that they would be as effective as possible in garnering participation. Once designed, the materials would be duplicated and distributed to partnering agencies in an approximate 30 mile radius from Santa Cruz County as well as posted to the County's website. The digital copies would be referenced in the materials sent to all UOCAVA voters with their ballots. By distributing to an area larger than the immediate boundaries of the county, the county's electorate should be mostly served, not to mention the voters of the surrounding areas that also partake of services at the same facilities.

- *Innovation, Scalability, Collaboration and Sustainability:* The proposed outreach is innovative because it is proactively targeting likely UOCAVA voters before they are abroad where they can not easily or readily access our services. It is innovative for bringing other related industries into the concept of providing more holistic services for their customers. This also is strategic for hitting the potential UOCAVA voter from all angles, thereby reducing the number of uninformed voters. The handouts should be almost entirely universal, except they would direct voters to Santa Cruz County information sources, which could easily be updated for any locality. The outreach program itself is adaptable to any size locality, with or without a military base.
- *Potential Return on Investment:* The true returns on the investment cannot be tracked during the grant period. The results of outreach take time to develop as relationships are formed and the partnering agencies begin to get positive feedback from their clients.

#### Concluding Remarks

While it is understood that the awarding agency has the ability to fund only portions of any application, funding the entire application creates a compounding effect for the returns based on investment. The overall expected returns are greatly increased when all projects are funded. Because this application is developed with all aspects of the County program in mind, the more programs that are funded, the smaller the likelihood for failures in the system and/or in the safety net that informs voters and keeps them active and participating.

## Schedule and Milestones

Below is a summary of activities and progress milestones and the reporting periods they will be discussed in. The reporting periods are discussed in detail in the next section of this proposal. The reporting period information for the fiscal reports is approximate. Some expense information may only become available on a quarterly basis and may miss the listed report deadlines and therefore be included in a later fiscal report.

Date Range	Activity	Project Number	Reporting Period	
Award to 11/30/2011	Complete the revision of the internal procedures	1	Fiscal Rpts 1 & 2, Annual Rpt, Mid-Award Data Rpt, Final Rpt	
Award to 12/15/2011	Create tracking form for updating registrant information	2	Fiscal Rpts 1-3, Annual Rpt, Mid-Award Data Rpt, Final Rpt	
Award to 1/2/2012	Complete the set up for the dedicated computer, email, fax, etc.	3	Fiscal Rpts 1-4, Annual Rpt, Mid-Award Data Rpt, Final Rpt	
Award to 1/2/2012	Work on meetings with local partnering organizations such as local higher education institutions, travel agencies, international drivers license facilities, international businesses, local passport agents, local military recruiting offices, etc. to assist in drafting the informational packets.	4	Fiscal Rpts 1-3, Annual Rpt, Mid-Award Data Rpt, Final Rpt	
Award to 1/2/2012	Complete informational packets for posting and distribution	4	Fiscal Rpts 1-3, Annual Rpt, Mid-Award Data Rpt, Final Rpt	
Award to 1/13/2012	Work with EIMS vendor on interface for FVAP voters information and an email-able ballot	2	Fiscal Rpts 1-3, Annual Rpt, Mid-Award Data Rpt, Final Rpt	
1/17/2012 to 1/31/2012	Conduct the test for all FVAP voters and solicit info	2&3	Fiscal Rpt 3, Annual Rpt, Mid- Award Data Rpt, Final Rpt	
Award to 3/1/2012	Work on meetings with partnering organizations, such as military recruiters, passport agencies, universities, customs officials, Department of Defense (DOD), CA Secretary of State (CA SOS), Election Assistance Commission (EAC), CACEO, etc.	I	Fiscal Rpts 1-4, Annual Rpt, Mid-Award Data Rpt, Final Rpt	
3/16/2012	Complete the acceptance of test replies (60-45 days over)	2&3	Fiscal Rpts 2-4, Annual Rpt, Mid-Award Data Rpt, Final Rpt	
Primary Election	Conduct the Presidential Primary Election	N/A	Mid-Award Data Rpt, Final Rpt	
8/6/2012 to 8/20/2012	Conduct the test for voters who prefer email ballots	3	Fiscal Rpts 5, Annual Rpt, Later Award Data Rpt, Final Rpt	
General Election	Conduct the Presidential General Election	N/A	Later Award Data Rpt, Final Rpt	

# **Reporting Milestones:**

Report Name	Report Type	Subject	Data Deliver- ables	Period Covered	Due Date
Fiscal Report (1)	<ul> <li>Programmatic</li> <li>Fiscal</li> <li>Data Collection</li> </ul>	Detail of all expenses paid for during the period covered	NO	Award to 9/30/2011	10/30/2011
Fiscal Report (2)	<ul> <li>□ Programmatic</li> <li>∞ Fiscal</li> <li>□ Data Collection</li> </ul>	Detail of all expenses paid for during the period covered	NO	10/1/2011 to 12/31/2011	1/30/2012
Fiscal Report (3)	<ul> <li>□ Programmatic</li> <li>∞ Fiscal</li> <li>□ Data Collection</li> </ul>	Detail of all expenses paid for during the period covered	NO	1/1/2012 to 3/31/2012	4/30/2012
Fiscal Report (4)	<ul> <li>□ Programmatic</li> <li>∞ Fiscal</li> <li>□ Data Collection</li> </ul>	Detail of all expenses paid for during the period covered	NO	4/1/2012 to 6/30/2012	7/30/2012
Fiscal Report (5)	<ul> <li>□ Programmatic</li> <li>∞ Fiscal</li> <li>□ Data Collection</li> </ul>	Detail of all expenses paid for during the period covered	NO	7/1/2012 to 9/30/2012	10/30/2012
Fiscal Report (6)	<ul> <li>Programmatic</li> <li>Fiscal</li> <li>Data Collection</li> </ul>	Detail of all expenses paid for during the period covered and final grant accounting	NO	10/1/2012 to 12/31/2012	3/3/2013
Annual Report	<ul> <li>Programmatic</li> <li>Fiscal</li> <li>Data Collection</li> </ul>	Update on meeting milestones and progress of working projects	YES	365 days from award date	455 days after award date
Mid-Award Data Report	<ul> <li>Programmatic</li> <li>Fiscal</li> <li>Data Collection</li> </ul>	Data obtained during Presidential Primary Election	YES		
Late Award Data Report	<ul> <li>Programmatic</li> <li>Fiscal</li> <li>Data Collection</li> </ul>	Data obtained during the Presidential General Election	YES	Mid-Award to 12/3/2012	1/2/2013
Final Report	FINAL	Final report regarding program impact	YES	Award to 12/3/2012	3/3/2013

## MANAGEMENT APPROACH

The Santa Cruz County Clerk / Elections Department will administer this grant using three permanent staff and potentially an extra help worker. The activities described in the projects proposed will be carried out by Tricia Webber, the Program Coordinator for Vote-By-Mail Services and Canvass Management. In the event of unscheduled elections being called during the award period, Ms. Webber may be assisted by an extra help staff person. Additionally, should there be an unscheduled election, the County would contract with Transcend Translations, a translation and plain language company, to execute portions of Project 1. Fiscal oversight will be handled by Rafaela Hoessel, the Senior Account Clerk for the County Clerk / Elections Department. Administrative oversight will be provided by Gail Pellerin, the County Clerk for Santa Cruz County and President of the CACEO.

Below you will find a description of each project and the management approach for that project.

## Project 1 – Internal Procedural Upgrades

**Strategic Goals and Justification:** Clear, current processes should exist for handling UOCAVA voters. With written procedures, both election official staff and members of the public can understand what goes into the production, handling, security, tabulation and canvassing of an UOCAVA ballot. Election officials have the added benefit of greater consistency both in training and in the processing of UOCAVA ballots. Voters have the added understanding of why they are required to do particular things with their ballots and how the security and secrecy of their ballots is maintained, even when total anonymity cannot be achieved. Additionally, with improved envelopes, voters will not need to resend ballots multiple times due to post offices not sending the ballot to which it is addressed, but back to the voter based on a difficult to understand envelope design.

**Current Processes:** Santa Cruz County is proposing the updating of the CACEO statewide best practices manual, four Santa Cruz County specific manuals, and the Santa Cruz County Military and Overseas Ballot Envelope.

The current CACEO manual was completed in 2006. It does not contain the latest postal regulations, MOVE Act provisions, and other current changes to ballot handling and processing in California.

Santa Cruz County's internal handling procedures are an oral tradition coupled with samples from previous elections. No comprehensive or dedicated documents exist. The processes currently in place were developed for a voting system no longer in use in Santa Cruz County and, other than small technical changes to accommodate the new voting system, rethinking of the process has not been done in over 20 years. With the recent retirement of the UOCAVA ballot coordinator, the 33 year institutional knowledge was lost.

Individual Proposed Processes and Relevant Performance Measures: The following

processes must be completed to achieve the goals of the project:

1. Research the most current UOCAVA regulations and laws

- Manual will be updated with postal regulations and other UOCAVA laws that are in place as of the time of the award of funds
- 2. Update the CACEO manual with current regulations and best practices from around the state
  - Performance will be based on the completed manual being approved by the post master, the CA SOS, and the president of the CACEO
- 3. Disseminate the CACEO manual at conferences and via the CACEO website
  - Performance will be based on the posting of the manual on the CACEO website and an email notification being sent to all 58 counties and the CA SOS.
- 4. Draft Santa Cruz County specific internal manuals and handbooks
  - Performance will be based on the finished Santa Cruz County specific manuals being approved of by the County Clerk that it matches the legal requirements spelled out in the CACEO manual.
- 5. Post local manuals on the county website
  - Performance will be based on successful uploading of the materials to the county website in the Military and Overseas portion of the website.
- 6. Train internal staff using the new manuals
  - Performance will be based on reduced staff time to prepare ballots for the Presidential Primary and General Elections when the overall preparation time is averaged to a pre ballot cost as compared to prior elections.
  - Performance will also be based on fewer errors in missing or extra voting materials in the UOCAVA ballot packets based on requests for additional materials or questions about items they received that do not match their correct ballot.
- 7. Redesign the local envelopes for UOCAVA voters
  - Performance will be based on approval from the postmaster for compliance with postal regulations.

**Projected Effectiveness:** By updating the manuals both for the CACEO and the local office, and the envelopes used by Santa Cruz County, the following improvements in performance are expected:

- A reduction of staff time to prepare the ballots from 12 minutes per ballot to 8 minutes per ballot.
- A higher percentage of ballots returned that are correctly assembled with their supporting documentation (estimated at a 10% increase).
- A reduction in ballots with ambiguous voter intent as shown anecdotally.
- A larger number of ballots being returned in a timely manner (prior to the deadline) due to a reduction in foreign postal errors (estimated at a 3% increase).

# Project 2 – Upgrading Digital Tracking Methods

**Strategic Goals and Justification:** Unlike voters who are located in the U.S., UOCAVA voters have no failsafe system for address updates. By collecting an additional point of contact from each UOCAVA voter and tracking that information digitally, a smaller number of UOCAVA voters will end up in the inactive file and therefore not get a ballot for future elections. There are two basic types of UOCAVA voters: transitional (typically military and voter temporarily

residing abroad) and stationary (typically voters who have permanently moved abroad). The hypothesis is that voters who are transitional are more likely to reestablish their residence between elections without notifying elections officials than voters who have moved abroad permanently and because there is no failsafe system to alert elections officials of the new information, the transitional voters are more likely to be inactivated due to a returned ballot with a bad address. Based on the voter file as of 6/30/2011, 42% of military voters and 21% of voters temporarily residing overseas are in an inactive status which is in sharp contrast to 9.4% of overseas voters permanently living abroad. The proposed "emergency contact" collection should reduce the number of bad addresses to bring them more in line with one another.

**Current Processes:** Currently, when a ballot is returned as undeliverable, the County Elections Department removes any mailing address and sends a post card to the residence address to confirm the change of address. If no mailing address exists, then the voter is moved directly to the inactive file. If a new address is provided on the returned ballot, the voter file is updated with the new address and a postcard is sent to new address to confirm change of mailing address. Once in the inactive file, no further ballots or notifications are sent to the voter.

# Individual Proposed Processes and Relevant Performance Measures: The following

processes must be completed to achieve the goals of the project:

- 1. Create the tracking form including a confirmation of current mailing address, email, emergency contact and preferred method of ballot delivery.
  - Performance will be based on the completion of the form and posting a similar web interface to the county website in the Military and Overseas portion of the website.
- 2. Disseminate via email and regular mail to existing voters.
  - Performance will be based on the successful mailing or emailing of the form to all current UOCAVA voters as of the date of the mailing.
- 3. Receive back the form/information from UOCAVA voters
  - Performance will be based on the successful and unsuccessful return of forms from the UOCAVA voters.
- 4. Update the EIMS system with form and information
  - Performance will be based on the procedures being finalized for inputting the information into the EIMS system
  - Performance will be based on the successful update of UOCAVA voters with the newly collected form and information.
  - Performance will be based on the updated information about ballot distribution on each UOCAVA voter including an increase of the number of voters using email as their preferred delivery method.
- 5. Run a test of the web interface system and train voters on its use prior to an actual election.
  - Performance will be based on the number of successful transactions via the web interface.

**Projected Effectiveness:** By creating the form and tracking the information, the following improvements in performance are expected:

- A reduction of percentage of military and temporarily abroad voters moved to the inactive file due to undeliverable ballots by up to 35%.
- A higher percentage of ballots returned (estimated at a 10% increase).
- A larger number of ballots being returned in a timely manner (prior to the deadline) due to a reduction in foreign postal errors (estimated at a 3% increase) and an increase in the number of ballots returned well in advance of the deadline as shown anecdotally.

## Project 3 - Dedicated, Isolated, Secure Electronic Balloting Station

Strategic Goals and Justification: Ballot emailing and fax handling have been significant issues for the Elections Department due to logistical issues with equipment. Ballots are currently emailed from a standard county email address which is widely known and contains no special security enhancements. Ballots are currently received on the only office fax machine which means it can be out of paper, documents can get "shuffled" or lost, and all office staff have access to any ballots that are transmitted in this manner, thereby reducing the secrecy of the ballot even further than necessary. By dedicating a computer with a secure email system, dedicated printer, and dedicated fax, the ballots issued and returned by UOCAVA voters would be afforded the same high level of security as other regular ballots handled by the office. Additionally, the dedicated computer with limited programs would provide for high security for ballots being issued and returned as they must be prepared on another work station and imported using a USB drive to the system. Should CA SB 908 continue to receive bipartisan support and become a law, then the high level of security would be ensured for emailed ballot returns by using an email system similar to those that are HIPPA compliant. The lack of sophisticated software such as Adobe Acrobat would prevent returned ballots from being tampered with prior to printing. Furthermore, ballots returned by fax or email would be produced on official ballot paper as required by California Elections Code Section 3103. Finally, by including these improvements in the documentation posted to the website and sent to UOCAVA voters, voter confidence would increase. UOCAVA voters requesting a ballot by email would likely increase, saving valuable time and money by further automating the voting process.

**Current Processes:** Ballots are currently sent from the regular office email system and returned on the regular office fax. The regular office email and fax have no extraordinary security or privacy protections in place. The regular office fax is located in the center of the office and is used by all of the department staff. Any staff person can currently remove or move materials from the fax machine. During high use periods, materials often become "shuffled" coming off the fax and before they reach the proper staff. When fax-returned ballots are shuffled, it takes a great deal of time to contact the voters and sort out the various documents. If contact is not possible, ballots run the risk of not being counted due to clerical issues on the elections department end of the process.

Individual Proposed Processes and Relevant Performance Measures: The following processes must be completed to achieve the goals of the project:

- 1. Obtain the necessary hardware and software.
  - Performance measured by the purchase of a computer, monitor, mouse, keyboard, printer / fax machine, and assorted cables.

- Performance measured by the purchase/obtaining of a license for Microsoft Windows, Microsoft Office, WinZip, Adobe Reader, a secure email system, Virus Protection Software, and any other mandated software.
- 2. Notify all UOCAVA voters of new options for voting
  - Performance will be based on the successful notification of all UOCAVA voters of the option to receive ballots by email. (NOTE: If Project 2 is not funded, Project 3 will include the mailing described in Project 2 which will still be performed on the Project 2 timeline.)
- 3. Stress test the email system and train UOCAVA voters on how to use the system during a "mock election"
  - Performance will be based on the number of emails successfully sent to UOCAVA voters.
  - Performance will be based on the number of successful returns of "mock" ballots.
- 4. Go live for the November 2012 Presidential General Election.
  - Performance will be based on the number of successfully returned actual ballots during the November Presidential General Election.

**Projected Effectiveness:** By creating an isolated computer and fax system, the following improvements in performance are expected:

- A 100% increase in ballot transmission and reception security as shown anecdotally.
- A reduction in percentage of faxed ballots that have missing pages due to internal clerical issues as shown anecdotally.
- A higher percentage of ballots returned (estimated at 3% increase).
- A reduction in the number of ballots rejected for missing information due to an increased ability to contact and make quick adjustments with UOCAVA voters as shown anecdotally.

## Project 4 - Informational Packets for UOCAVA Voters, Their Families, & Service Providers

**Strategic Goals and Justification:** The single most important factor in the success of any type of voting improvement program is the sharing of information to the service providing community and the service seeking community. While all three other projects described here have focused on improving the internal processes for handling voters and ballots, little attention has been given to catching and informing UOCAVA voters prior to them heading abroad. A comprehensive outreach program to groups, agencies and other entities that serve people who are about to travel abroad will create partnerships and open dialogs about what works and doesn't work in assisting voters with getting into the UOCAVA system. By holding meetings, attending conferences, and working via correspondence, informational pamphlets, fliers, and posters can be created to educate prospective UOCAVA voters about their rights and options.

**Current Processes:** Other than compliance with California Election Code Section 3004, no outreach program is in place to reach UOCAVA voters who are not yet registered as UOCAVA voters.

## Individual Proposed Processes and Relevant Performance Measures: The following

processes must be completed to achieve the goals of the project:

- 1. Meet with interested parties to define their roll in the process and take feedback on how best to reach their clients.
  - Performance measured by the number of meetings held.
- 2. Create informational packets/fliers/pamphlets.
  - Performance measured by the completion of the materials as approved by the County Clerk.
- 3. Distribute pamphlets/fliers to all UOCAVA voter related groups within an approximate 30 mile radius of Santa Cruz County.
  - Performance measured by the number of meetings held.
  - Performance measured by the number of packets distributed.
  - Performance measured by the number of agencies that partner with the department.
- 4. Post the information on the county website in the Military and Overseas portion of the website.
  - Performance measured by the successful posting of materials on the county website in the Military and Overseas portion of the website.

**Projected Effectiveness:** By creating the UOCAVA outreach packets and distributing them to partnering agencies, the following improvements in performance are expected:

- An increase of materials available at partnering agencies as demonstrated by requests for information packets.
- A 5-10% increase in the number of registered UOCAVA voters registering earlier than historically shown as demonstrated by statistical analysis.
- An increase in overall UOCAVA registered voters.

## Current and Pending Proposal Submissions

Santa Cruz County has experience with \$3,816,656 in grant funds awarded via the California Secretary of State (state bond money and Federal HAVA funds, from grants, some of which were competitive) and the United States Election Assistance Commission (competitive Federal grant). Below is a description of each of the active outside funding sources for the County Elections Department. While none of them directly, or even indirectly, cover the same project focus, they are included here for full disclosure.

## Help America Vote Act (HAVA) Funding

**Proposal Summary:** The Help America Vote Act of 2002 covers a wide variety of processes with four main areas: Statewide Voter Registration Databases, Provisional Voting, UOCAVA voters, and the elimination of punch card voting systems. The federal funds are administered to the states and then the states awarded funds to the individual counties. The

allocations were awarded to individual project areas. The remaining funds for Santa Cruz County are pertaining only to voting equipment.

Source: California Secretary of State, Agreement #07G30131

Amount of Funding: Total Award: \$1,698,327.79 Spent: \$1,350,360.79 Remaining: \$347,967.00

Percentage of Effort Devoted to Project: As needed only and only in the voting equipment category now.

Identity of Prime Applicant: County of Santa Cruz

**Complete List of Subcontractors:** Dominion Voting Systems, Inc. and IT Fleet Services, Inc. currently receive licensing fees for software. Contractors who received funds previously for good or services and are no longer funded can be provided upon request.

### **Technical Contact Name:**

Name: Gail L. Pellerin Address: 701 Ocean Street, Rm. 210, Santa Cruz, CA 95060 Phone/Fax: 831-454-2419 / 831-454-2445 Email Address: gail.pellerin@co.santa-cruz.ca.us

Period of Performance: December 19, 2005 to December 31, 2011

**Projects of Senior Personnel:** No outstanding projects. Money is in reserve to pay for equipment licensing, repairs, parts and the purchase of new equipment.

Award Period: December 19, 2005 to December 31, 2011

Amount and Labor Hours Devoted to Project: Staff time for equipment repairs are on an as needed basis.

How Projects are Related to Proposal: Current projects are in no way related to the proposal. Prior projects included revised instructions, envelopes, the purchase of an envelope printer, etc.

### <u>Pre-Election Logic and Accuracy Testing and Post-Election Audit Initiative from the U.S.</u> <u>Election Assistance Commission</u>

**Proposal Summary:** Santa Cruz County Clerk/Elections Dept. was awarded the Pre-Election Logic and Accuracy Testing and Post-Election Audit Initiative from the U.S. Election Assistance Commission for a blended application of \$25,000 to document and improve current effective practices Pre-Election testing and Post-Election Auditing. The current California Election Code, certification mandates, and Use Procedures and manuals released from the vendor. The focus of the work is on more comprehensive testing prior to the election and a more detailed series of post-election audits focusing on easy audits and clear and comprehensive chain of custody procedures to promote greater transparency and more uniform results. The project will do the following:

- Create a library of current practices on pre-election testing and post election canvassing.
- Examine ballot & equipment testing procedures
- Examine ballot, equipment & procedural audit practices from close of polls to certification
- Develop uniform escalation procedures
- Revise audit log reviews & storage based auditing
- Comprehensive reports will be created for the Statement of the Vote
- Ask other counties with the same equipment vendor to participate in sharing experiences, procedures & data, and if resources allow, to test procedures

Source: U.S. Election Assistance Commission, Award #EAC110150D

### **Amount of Funding:**

Total Award: \$25,000 Spent: \$0.00 Remaining: \$25,000

Percentage of Effort Devoted to Project: 21.92%

Identity of Prime Applicant: County Of Santa Cruz

### Complete List of Subcontractors: None

#### **Technical Contact Name:**

Name: Gail L. Pellerin Address: 701 Ocean Street, Rm. 210, Santa Cruz, CA 95060 Phone/Fax: 831-454-2419 / 831-454-2445 Email Address: gail.pellerin@co.santa-cruz.ca.us

Period of Performance: May 23, 2011 to April 30, 2012

**Projects of Senior Personnel:** Tricia Webber – Post Election Canvass / Jaime Young - Pre-Election Testing

Award Period: May 23, 2011 to April 30, 2012

Amount and Labor Hours Devoted to Project: Regular staff- \$18,750.00, 720/Hrs.

Extra Help \$2,500.

How Projects are Related to Proposal: The programs are only related in that these ballots are handled during the canvass and therefore are included referentially.

## VoteCAL from the Secretary of State

**Proposal Summary:** This funding is provided by the U.S. Election Assistance Commission to the Secretary of State which funds the County to provide the county with funds to all for participation in the following activities:

- Workshops and Meetings
- VoteCal System Training
- EMS Modification Training

- Data Conversion, Correction and Verification and VoteCal Implementation
- Pilot Testing and Implementation.

Source: Secretary of State, Agreement #09G30332

### Amount of Funding:

Total Award: \$468.00 Spent: \$0.00 Remaining: \$468.00

#### Percentage of Effort Devoted to Project: None

Identity of Prime Applicant: County Of Santa Cruz

#### Complete List of Subcontractors: None

#### **Technical Contact Name:**

Name: Gail L. Pellerin Address: 701 Ocean Street, Rm 210, Santa Cruz, CA 95060 Phone/Fax: 831-454-2419/831-454-2445 Email Address: gail.pellerin@co.santa-cruz.ca.us

Period of Performance: January 1, 2010 to December 31, 2011

Projects of Senior Personnel: None

Award Period: January 1, 2010 to December 31, 2011

Amount and Labor Hours Devoted to Project: None

**How Projects are Related to Proposal:** The VoteCAL system will be California's Statewide Voter Registration Database. Because UOCAVA voters are tracked by that system, the projects are related referentially, but in no practical way. Additionally, since the VoteCAL system is yet to be designed, there is no overlap in project focus.

#### **Qualifications**

#### Gail Pellerin Administrative Oversight

Gail Pellerin first joined the county in 1993, heading the Elections Division of the County Clerk/Recorder. Gail was appointed as County Clerk in 2004 and has since run unopposed two times. Prior to her work with the County, she was Assistant Director, Speaker's Office of Majority Services (1991-1992), Director of Legislative Unit – Speaker's Office of Majority Services (1988-1992), Legislative Aide, Speaker' Office of Majority Services (1987-1988) as well as working on many campaigns and as an aide throughout the state (1985-1992), teaching at Merced Community College (1985-1987), and writing for several newspapers (1985-1992). Gail is the current President of the CACEO, Co-Chair of the Secretary of State's Voter Accessibility Advisory Committee, instructor for the Cal-PEAC Accessibility and Budget courses, as well as teaching innumerable election officer training classes at the local level. Gail is also published as a co-author in a UC Berkeley study on Risk-Limiting Audits. Gail has received many awards, the most notable being the American Civil Liberties Union Hammer of Justice Award and Proclamations from the City of Santa Cruz and County of Santa Cruz. Gail is also a graduate of the inaugural class of California Professional Election Administration Credential Program in 2005.

# Tricia Webber Project Principal

Tricia Webber joined the department in May 1998 as a temporary worker assisting with many of the department functions. She worked in this capacity until November 2007 when she moved to a permanent position where she oversaw election officer staffing and training. In this position she was charged with finding over 900 people to work on Election Day and train them to fill the various positions. During her tenure in this position, she worked on building relationships with local high schools (student poll worker program), colleges, and non-profit organizations (adopta-poll program), as well as updating the training materials to reflect changes in the state's election codes and mandates. Due to a retirement in March 2010, she also took on the Vote-By-Mail Services position and ran both programs until August of the same year when a replacement for the Election Officer position was hired, but continued to help with the training through the November 2010 election. Since 2008 she has been actively involved with the post election canvass activities and was recently name Canvass Manager. In addition to her commitments at the Elections Office, Tricia serves on several committees locally and on the state level. She is a member of the CACEO Legislative Committee, Summer Institute Training Committee, Voters with Specific Needs Committee, the State Poll Worker Guidelines Committee, the Post Election Audit Committee where she helped draft California Assembly Bill 2023, and is President of her local PEO Chapter and the school's Parent's Association. She was a participating member of the Risk-Limiting Audit Pilot in 2008 with Phil Stark and UC Berkley (published) and will be participating again in the second round of the pilot in 2011 and 2012. Tricia became a California Registered Election Official in 2010 after completing courses offered through the Election Center and CACEO. She has also been nominated for the County of Santa Cruz Employee Recognition Award for General Government twice, winning the gold award in 2008. In 2011 she was awarded a \$25,000 competitive grant from the EAC for Pre-Election Testing and Post-Election Audits. Tricia is also an accredited teacher and has taught a variety of studies, including high school students with disabilities.

# Rafaela Hoessel Fiscal Oversight

Rafaela Hoessel is the Senior Account Clerk. Rafaela joined the department in January 2011 after working as an Account Clerk for the Civil Division of the Santa Cruz County Sheriff-Coroner's Office from 2006 to 2011. Rafaela also has 10 years of corporate bookkeeping and personnel experience. During her corporate employment, she was rewarded as the employee of the quarter and received a certificate for her service.

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#### BUDGET PROPOSAL NARRATIVE

This proposal is broken down into four independent projects. The projects weave together to create a comprehensive reform package. If fully funded, the projects will create an advanced, modern, and secure network of information and processes that will significantly improve the voting experience for UOCAVA voters. The programs described are all sustainable, long term solutions that are scalable for any size jurisdiction. The ongoing costs for each project are minimal and easily absorbed by the local jurisdictions. The new and innovative projects described in this proposal will make a substantial impact on reducing the high failure rates of each stage of the UOCAVA process.

For each project below a synopsis of the program is provided along with the associated justifications and estimated costs. The costs are structured to match the SF424A form attached to this proposal. The County is not claiming any Fringe Benefits, Construction, or Indirect Costs including Administrative or Clerical costs generated by this proposal.

California has two possible elections that may impact the ability to deliver on the projects. The Presidential Primary Election is currently set by code in February. Because the Democratic Party rules would not allow California's votes to be considered in choosing the nominee, there are several bills currently in the works to reconsolidate the Presidential Primary and the Direct Primary or to move it a later date, but not consolidate it. This proposal was written with the assumption that the Primaries will be consolidated. Secondarily, the Governor has indicated his desire to have a statewide election some time in fall of 2011. Should either of these scenarios occur, the alternate budgets listed below would be used. The alternate budgets allow for the use of a contractor to assist with the manual layout and language simplification and structuring.

Finally, should only portions of the proposal receive funding, some expenses from one project may need to move to another project. These costs have been broken out separately for easy conversion, but they have not been incorporated into the alternate project.

## <u> Project 1 – Internal Procedural Upgrades</u>

This project consists of an update of the CACEO manual and then the development of local manuals. As stated above, if an election is called for 2011 or a third election is scheduled for 2012, the alternate budget will need to be used for the development of the local manuals. Both budgets are listed here.

# <u>CACEO Mamual</u>

Activity Synopsis

- Update the 74 page manual that is posted on the CACEO website
- Host 2 meetings in association with the CACEO Legislative Subcommittees (1 in northern CA, the other in southern CA) to gather information and best practices from attending counties
- Visit counties with large UOCAVA participation to see their practices (up to 10 counties statewide)
- Host conference calls to gather information and best practices from counties not attending CACEO Legislative Subcommittee meetings
- Make individual calls to counties for clarification of procedures and information

Costs

## Direct Labor

- o 140 hours for Tricia Webber's time at \$28.19/hour (at the time of submittal)
- o Not to exceed \$4000.00
- Travel
  - o 2 subcommittee meetings
  - o 10 statewide county visits
  - Plane tickets/vehicle mileage and expense/hotel (if overnight)/per diem
  - o Not to exceed \$3000.00

# Supplies

- Photocopying envelopes and other materials submitted by counties
- o Photocopying sections for counties to review/edit before final posting to website
- o Not to exceed \$50.00

# Other Direct Costs

- Telecom charges for the conference call capability and applicable long distance charges
- o Not to exceed \$230.00

Santa Cruz County Manual (in house)	Santa Cruz County Manual (using contractor)	
Activity Synopsis	Activity Synopsis	
<ul> <li>Create/update manuals for use in</li> </ul>	<ul> <li>Create/update manuals for use in Santa</li> </ul>	
Santa Cruz County Elections and to	Cruz County Elections and to post on	
post on the website	the website	
<ul> <li>UOCAVA Voter Registration</li> </ul>	<ul> <li>UOCAVA Voter Registration</li> </ul>	
Handling Procedure Manual	Handling Procedure Manual	
<ul> <li>UOCAVA Ballot Issuing</li> </ul>	<ul> <li>UOCAVA Ballot Issuing</li> </ul>	
Guidelines	Guidelines	
<ul> <li>UOCAVA Ballot Acceptance</li> </ul>	<ul> <li>UOCAVA Ballot Acceptance</li> </ul>	
Handbook	Handbook	
<ul> <li>UOCAVA Returned Ballot</li> </ul>	<ul> <li>UOCAVA Returned Ballot</li> </ul>	
Handling Procedures	Handling Procedures	
<ul> <li>Update outgoing and return</li> </ul>	<ul> <li>Update outgoing and return</li> </ul>	
UOCAVA ballot envelopes	UOCAVA ballot envelopes	
Costs	Costs	
<ul> <li>Direct Labor</li> </ul>	Direct Labor	
<ul> <li>30 hours for Tricia Webber's</li> </ul>	<ul> <li>17.5 hours for Tricia Webber's</li> </ul>	
time at \$28.19/hour (at the	time at \$28.19/hour (at the time	
time of submittal)	of submittal) for creation and	
<ul> <li>Not to exceed \$850.00</li> </ul>	editing	
<ul> <li>Supplies</li> </ul>	<ul> <li>Not to exceed \$500.00</li> </ul>	
<ul> <li>Photocopying manuals for</li> </ul>	<ul> <li>Supplies</li> </ul>	
training purposes	<ul> <li>Photocopying manuals for</li> </ul>	
<ul> <li>Binder and tabs for a</li> </ul>	training purposes	
procedure manual	o Binder and tabs for a procedure	
<ul> <li>Not to exceed \$100.00 (based</li> </ul>	manual	
on County's Duplicating	<ul> <li>Not to exceed \$100.00 (based on</li> </ul>	
prices and catalog list prices)	County's Duplicating prices and	
	catalog list prices)	
	<ul> <li>Contractual</li> </ul>	
	o 20 hours at \$87.50/hour (based	
	on current purchase order with	
	Transcend Translations)	
	<ul> <li>Not to exceed \$1750.00</li> </ul>	
Totals:	Totals:	
In House	<ul> <li>Contractor</li> </ul>	
o Direct Labor - \$4850.00	<ul> <li>Direct Labor - \$4500.00</li> </ul>	
o Travel - \$3000.00	o Travel - \$3000.00	
<ul> <li>Supplies - \$150.00</li> </ul>	<ul> <li>Supplies - \$150.00</li> </ul>	
o Contractual - \$0.00	o Contractual - \$1750.00	
<ul> <li>Other Direct Costs - \$230.00</li> </ul>		
Grand Total - \$8230.00	Grand Total - \$9630.00	

As discussed in the Goals and Objectives portion of the Technical Approach and Justification Section, the County anticipates that the return on the initial investment would be significant as training costs would go down, transparency and therefore voter confidence would go up with a low initial cost and minimal ongoing cost. Furthermore, as discussed in the Management Approach Section, the performance measures for these upgrades are:

- Completed CACEO Manual being approved by the post master, the CA SOS, and the president of the CACEO
- Posting of the manual on the CACEO website and an email notification being sent to all 58 counties and the CA SOS.
- Finished Santa Cruz County specific manuals being approved of by the County Clerk that it matches the legal requirements spelled out in the CACEO manual.
- Successful uploading of the materials to the county website in the Military and Overseas portion of the website.
- Reduced staff time to prepare ballots for the Presidential Primary and General Elections when the overall preparation time is averaged to a pre ballot cost as compared to prior elections.
- Fewer errors in missing or extra voting materials in the UOCAVA ballot packets based on requests for additional materials or questions about items they received that do not match their correct ballot.
- Approval from the postmaster for compliance with postal regulations.

Finally, the County expects to see the following changes in the UOCAVA statistics as of a result of these projects:

- A reduction of staff time to prepare the ballots from 12 minutes per ballot to 8 minutes per ballot.
- A higher percentage of ballots returned that are correctly assembled with their supporting documentation (estimated at a 10% increase).
- A reduction in ballots with ambiguous voter intent as shown anecdotally.
- A larger number of ballots being returned in a timely manner (prior to the deadline) due to a reduction in foreign postal errors (estimated at a 3% increase).

# Project 2 – Upgrading Digital Tracking Methods

## Activity Synopsis

- Create a contact form for each UOCAVA voter that lists the current mailing address, email address, phone number, preferred voting method (email versus regular post), and name/address/phone number for a contact person
- Meet with DFM (the EIMS vendor) to create a way to integrate the contact information into the UOCAVA registration records
- Update all UOCAVA registration records
  - To reflect any information changes
  - To reflect voting preference (email versus regular post)
  - Scan as a supporting document the contact information to registration record
- Test the new equipment (dedicated electronic balloting station) by sending out these forms to all UOCAVA voters that are currently on the email preference list

Costs

- Direct Labor
  - 16 hours for Tricia Webber's time at \$28.19/hour (at the time of submittal) (for stuffing the mailings)
  - 92 hours for Tricia Webber's time at \$28.19/hour (at the time of submittal) (for remaining activities)
  - 40 hours at \$18.30/hour (extra help for data entry) (wage is an average of current extra help employees as of the time of submittal)
  - Not to exceed \$3800.00
- Travel
  - I trip to Irvine to meet with the EIMS vendor to work on a program enhancement to integrate contact information
  - Plane tickets/vehicle mileage and expense/hotel/per diem
  - o Not to exceed \$600.00
- Supplies
  - Photocopying the form for sending through regular post (\$20.00)
  - Mailing packets (envelopes \$105.00; mailing labels \$25.00, postage -\$1650.00)
  - Not to exceed \$1800.00 (based on County's Duplicating prices and catalog list prices)

# Totals:

- Direct Labor \$3800.00
- Travel \$600.00
- Supplies \$1800.00
  - Grand Total \$6200.00

As discussed in the Goals and Objectives portion of the Technical Approach and Justification Section, the County anticipates that the return on the initial investment would be the largest return on investment of all the programs proposed. The ease of sustainability will mean that for a very small initial investment, the county will be able to address the two largest problems with UOCAVA voters and be able to virtually eliminate undeliverable ballots and reduce the number of ballots not returned due to mail failures. Furthermore, as discussed in the Management Approach Section, the performance measures for these upgrades are:

- Completion of the form and posting a similar web interface to the county website in the Military and Overseas portion of the website.
- Successful mailing or emailing of the form to all current UOCAVA voters as of the date of the mailing.
- Successful and unsuccessful return of forms from the UOCAVA voters.
- Procedures being finalized for inputting the information into the EIMS system
- Successful update of UOCAVA voters with the newly collected form and information.
- Updated information about ballot distribution on each UOCAVA voter including an increase of the number of voters using email as their preferred delivery method.

• The number of successfully transactions via the web interface during the test of the system.

Finally, the County expects to see the following changes in the UOCAVA statistics as of a result of these projects:

- A reduction of percentage of military and temporarily abroad voters moved to the inactive file due to undeliverable ballots by up to 35%.
- A higher percentage of ballots returned (estimated at a 10% increase).
- A larger number of ballots being returned in a timely manner (prior to the deadline) due to a reduction in foreign postal errors (estimated at a 3% increase) and an increase in the number of ballots returned well in advance of the deadline as shown anecdotally.

### Project 3 – Dedicated, Isolated, Secure Electronic Balloting Station

#### Activity Synopsis

- Obtain a computer with a printer/fax to create a dedicated electronic balloting station
- Set up a secure email account
- Set up a fax line to the balloting station
- Test the new station with a mock election

#### Costs

- Direct Labor
  - o 21 hours for Tricia Webber's time at \$28.19/hour (at the time of submittal)
  - Not to exceed \$600.00
- Equipment
  - o Computer \$800.00 (based on County's ISD price list)
  - Monitor \$250.00 (based on County's ISD price list)
  - o Printer/Fax \$850.00 (based on County's ISD price list)
  - Secure Email Encryption Software \$100.00 (based on County's ISD price list)
  - Fax Line \$100.00 (based on County's ISD price)
  - o Not to exceed \$2100.00
- Supplies
  - Printer Toner Cartridge \$100.00 (based on catalog price list)
  - o Paper \$10.00 (based on catalog price list)
  - o Envelopes \$110.00 (based on catalog price list)
  - o Not to exceed \$220.00

#### Totals:

- Direct Labor \$600.00
- Equipment \$2100.00
- Supplies \$220.00
  - o Grand Total \$2920.00

As discussed in the Goals and Objectives portion of the Technical Approach and Justification Section, the County anticipates for a relatively low initial investment, the potential services and security upgrades for the voters are incredible. The ability to issue second ballots, service votes with no fixed mailing address, and quickly address missing information clearly provides a very high return on the investment. The testing of the online system would prepare the County for the heavy volume associated with presidential voting years, ensuring smooth voting for the UOCAVA voters without ever risking ballot issues during a real election. Furthermore, as discussed in the Management Approach Section, the performance measures for these upgrades are:

- Purchase a computer, monitor, mouse, keyboard, printer / fax machine, and assorted cables.
- Purchase/obtaining of a license for Microsoft Windows, Microsoft Office, WinZip, Adobe Reader, a secure email system, Virus Protection Software, and any other mandated software.

- Successful notification of all UOCAVA voters of the option to receive ballots by email. (NOTE: If Project 2 is not funded, Project 3 will include the mailing described in Project 2 which will still be performed on the Project 2 timeline.)
- Number of emails successfully sent to UOCAVA voters.
- Number of successful returns of "mock" ballots.
- Number of successfully returned actual ballots during the November Presidential General Election.

Finally, the County expects to see the following changes in the UOCAVA statistics as of a result of these projects:

- A 100% increase in ballot transmission and reception security as shown anecdotally.
- A reduction in percentage of faxed ballots that have missing pages due to internal clerical issues as shown anecdotally.
- A higher percentage of ballots returned (estimated at 3% increase).
- A reduction in the number of ballots rejected for missing information due to an increased ability to contact and make quick adjustments with UOCAVA voters as shown anecdotally.

## <u>Project 4 – Informational Packets for UOCAVA Voters, Their Families, & Service</u> <u>Providers</u>

Activity Synopsis

- Create a campaign to inform UOCAVA voters, families and service providers of UOCAVA voting rights
- Meet with local agencies that provide service to UOCAVA voters to discuss their stake in the process and what their needs/wants are in this information packet
- Create pamphlets, fliers, handouts, posters, etc. to be distributed at various locations for the UOCAVA voters. These pamphlets would include information on eligibility, registration, obtaining and returning ballots, and where to get more information
- After creating the pamphlets, distribute to all applicable agencies within a 30 mile radius of Santa Cruz County (military recruiting offices, universities, passport acceptance facilities, international companies, etc.)
- Create a letter campaign to distribute to all travel agencies within a 30 mile radius of Santa Cruz County
- Post handouts and other information on website

Costs

- Direct Labor
  - o 84 hours for Tricia Webber's time at \$28.19/hour (at the time of submittal)
  - o Not to exceed \$2400.00
- Travel
  - 7 "pre-meetings" with military recruitment officers, postal service representatives, colleges (UC, CSU, and Junior Colleges)
  - o 50 locations to distribute the completed packets
  - o Vehicle mileage and expenses
  - Not to exceed \$750.00
- Supplies
  - Photocopying/folding of the finished materials (pamphlets, posters, flyers) in color (based on County's Duplicating prices)
  - Display holders (based on catalog price list)
  - Paper, envelopes, postage for mailing to travel agents (based on catalog price list and US postage rates)
  - o Not to exceed \$2500.00
- \* Contractual
  - Translation of the finished packet into Spanish at \$.20/word (based on current purchase order with Transend)
  - o Not to exceed \$600.00

# Totals:

- Direct Labor \$2400.00
- Travel \$750.00
- Supplies \$2500.00
- Contractual \$600.00
  - Grand Total \$6250.00

As discussed in the Goals and Objectives portion of the Technical Approach and Justification Section, the true returns on the investment cannot be tracked during the grant period. The results of outreach take time to develop as relationships are formed and the partnering agencies begin to get positive feedback from their clients. Furthermore, as discussed in the Management Approach Section, the performance measures for these upgrades are:

- Number of pre-meetings held.
- Completion of the materials as approved by the County Clerk.
- Number of meetings held.
- Number of packets distributed.
- Number of agencies that partner with the department.
- Successful posting of materials on the county website in the Military and Overseas portion of the website.

Finally, the County expects to see the following changes in the UOCAVA statistics as of a result of these projects:

- An increase of materials available at partnering agencies as demonstrated by requests for information packets.
- A 5-10% increase in the number of registered UOCAVA voters registering earlier than historically shown as demonstrated by statistical analysis.
- An increase in overall UOCAVA registered voters.

### Total for the 4 projects:

#### In House

- Project #1 \$8230.00
- Project #2 \$6200.00
- Project #3 \$2920.00
- Project #4 \$6250.00
  - Grand Total \$23600.00

#### Contractor

- ▶ Project #1 \$9630.00
- Project #2 \$6200.00
- Project #3 \$2920.00
- Project #4 \$6250.00
  - Grand Total \$25000.00

### Shelby County, Tennessee Technical Proposal

### i. Cover Page

### 1) Catalog of Federal Domestic Assistance Number: 12.217

- 2) BAA number: H98210-BAA-11-0001
- 3) Title of proposal: Shelby County, Tennessee Electronic Absentee Systems for Election Grant Applications
- 4) CAGE Code: (b)(4) DUNs Number: (b)(4)
- 5) Applicant: Shelby County Government, Election Commission

Sub Contractors: Election Systems and Software, Inc and Scytl USA LLC

### 6) Technical Contact:

Name:	Richard Holden, Administrator of Elections
Address:	150 Washington Avenue, Suite 205, Memphis TN 38103
Phone:	(901) 545-2600
Fax:	(901) 545-5676
Email:	richard.holden@shelbycountytn.gov

## 7) Administrative Contact:

Name:	Dorothy D Jones, Director
Address:	160 North Main, Suite 801, Memphis TN 38103
Phone:	(901) 545-4274
Fax:	(901) 545-3796
Email:	dottie.jones@shelbycountytn.gov

8) Period of Performance: September 2011 to December 2016

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### iii. Technical Approach and Justification

### **Executive Summary**

The Shelby County, Tennessee Election Commission is conscious of the challenges facing military and overseas voters and is committed to growing and adapting its services and supporting technologies to meet their continuing needs. Shelby County's participation in the Electronic Absentee Systems for the Elections Grant initiative will allow for continued efforts to research and evaluate innovative technologies and associated services that will improve – and increase – the successful level of participation within this valuable constituency group. The Election Commission intends on addressing these challenges as well as others through the establishment of the UOCAVA System Enhancement Research (USE) Program.

The key program objective is to establish and improve electronic systems for UOCAVA voters that are sustainable, affordable and reduce the failure rates for UOCAVA voters in each stage of the absentee voting process. The Shelby County, Tennessee Election Commission also believes the efficacy of its efforts will be replicable and will benefit other jurisdictions.

Considering Shelby County's background and current UOCAVA solution, the Election Commission believe that working with ES&S and Scytl as well as academic researchers from Cal Tech University and the University of Utah will best address the unique requirements and result in the most effective, innovative, repeatable, documented, and sustainable solution for Shelby County. ES&S and Scytl have committed to providing a unique solution customized to fit the requirements of Shelby County.

### SHELBY COUNTY TENNESSEE BACKGROUND

Overall, the collaboration between Shelby County and ES&S and Scytl, with their electronic absentee balloting product, BALLOT*safe*, offers the best solution to overcome and eliminate the UOCAVA barriers which now face the affected voters of Shelby County. Its robustness, flexibility, usability, and innovation will pave the way to ensuring that the number of ballots sent equals the number of ballots returned successfully addressing the goals and objectives in the following section.

#### **Goals and Objectives**

## i) UOCAVA System Enhancement Research (USE) Program Overview

The Shelby County, Tennessee Election Commission proposes a UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl where state of the art secure online tools will be used to assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate in the ballot return process.

#### ii) Factors Achieved

The Shelby County, Tennessee Election Commission believes that its unique assets, capabilities, locations, and personnel through the UOCAVA System Enhancement Research (USE) Program with ES&S and Scytl will foster and develop products and processes which will lessen the impediments that exist for the UOCAVA voter and will strongly address the Evaluation Factors stipulated in the FVAP EASE Grant program. For example, these factors are achievable through the deployment and use of the BALLOT*safe* solution complimented with customizations for

Shelby County and related research and analysis. Research and resulting reports will provide statistics and findings related to the progress towards achieving these factors.

## iii) Significance

Knowing that research indicates that UOCAVA voters experience a higher failure in every stage of the voting process than comparable populations in the general electorate, the USE Program will address each phase through greater information dissemination, monitoring, increased operational efficiencies, and multi-channel confirmation of voter success or failure at each stage of the voting process. These phases/stages include:

- Voter Registration BALLOT*safe* will work in coordination with any online voter registration system and through the use of tools and procedures will provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.
- Absentee Ballot Request BALLOT*safe* will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT*safe* to track the return and processing of the AB request. With an account, the voter will also be able to setup email reminders to complete requests for each election.
- Absentee Ballot Delivery BALLOT*safe* will utilize the ballot data from any Shelby County election management system and deliver the precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT*safe* online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.
- Absentee Ballot Marking BALLOT*safe* provides an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write-ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.
- Absentee Ballot Return and Tabulation BALLOT*safe* will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT*safe* will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assists in the automated duplication of returned paper ballots into optical scan format for tabulation. Ballot return tracking updates are provided to the voter immediately through BALLOT*safe* and through email notifications.

# iv) Sustainable

The Shelby County, Tennessee Election Commission is focused on constructed cost-effective and sustainable solutions which successfully enhance voter awareness consistently across multiple election cycles. There are multiple factors in Shelby County's assessment of sustainability shown below. The Election Commission believes these factors are achievable through a unique approach using lean principals and incorporating a research evaluation of improvements to sustainability.

- The program and solution will be **financially sustainable**. Shelby County will see a future cost savings in the overall cost of UOCAVA absentee balloting through the execution of the USE Program. Further information can be found in the ROI analysis provided in the Budget Proposal.
- The program and solution will be **logistically sustainable**. The USE Program will seek to realize operational efficiencies over the current processes through the BALLOT*safe* technology which will provide a lower level of effort which can be sustained even with decreasing budgets. Examples of this include easier exchange of ballot and voter information between technology systems, less effort and cost in the delivery of ballots electronically, quicker processing of returned absentee ballots, and quicker and more reliable replication of ballots upon return.
- The program and solution will be **technologically sustainable**. The BALLOT*safe* solution is designed with an advanced technology platform which relies on advances in cryptographic protections, advances in Java based web platform technologies, and a redundant, robust, and reliable infrastructure setup to ensure sustainability.

By selecting the ES&S/Scytl product offering of BALLOT*safe* Shelby County is ensured of a long term commitment from a vendor who has a long history of election experience and can continue to provide updates and enhancements to the product for many years to come. Furthermore, by incorporating the cost for the USE Program through the year 2016, Shelby County is ensuring a consistent and sustaining offering to its voters and election officials. Also, utilizing multiple election cycles to gather and analyze statistics and feedback will strengthen the USE Program's findings and allow for a greater impact and significance. Specifically, the Shelby County, Tennessee Election Commission expects to support the following through 2016:

- Maintain BALLOT*safe* services with ES&S and Scytl through an annual Right to Use License
- Ongoing research and evaluation of BALLOT*safe* for each election cycle
- Generation of Election Analysis and Assessment Reports (EAAR) after major elections

## v) Impact

The ease of use and intuitive nature of BALLOT*safe* in concert with its consistent availability over multiple election cycles will result in increased familiarity and expectation for its usage which provides for the broadest impact to voters and election officials. Some advanced concepts which will provide greater impact to voters are:

- Sample Ballot The sample ballot feature of BALLOT*safe* allows voters the opportunity to access the jurisdiction's sample ballot before the election. Through the election official's interface, officials are allowed to publish campaign statements from candidates as well as additional information that will be available to voters in the sample ballot.
- News Feed BALLOT*safe* provides specific news feed to voters. The news feed is provided in a sidebar of the voter web site and includes news events generated by the local election official. As desired, the news feed may also be linked to FVAP or the jurisdiction's social media feeds.

- Accessibility BALLOT*safe* has been purposefully constructed to be in compliance with the applicable web accessibility standards and to provide an intuitive interaction when being understood or controlled through personal assistive devices. Below are the usability and accessibility standards which BALLOT*safe* follows:
  - o Web Content Accessibility Guidelines (WCAG) 2.0
  - o User Agent Accessibility Guidelines (UAAG) 1.0
  - Section 508 of the US Rehabilitation Act, Web-based Intranet and Internet Information and Applications (1194.22)
  - NIST Accessibility and Usability Considerations of Remote Voting Systems, Draft – June 28, 2010

#### vi) Strategic approach

The Shelby County, Tennessee Election Commission has presented a credible hypothesis and will provide a well-defined and appropriate plan to test that hypothesis. The plan is further defined in 0 Schedule and Milestones and the iv. Management Approach, Section 0. The hypothesis advances the body of knowledge needed to alleviate the obstacles faced by UOCAVA voters in their absentee voting process. It also identifies risk areas and provides mitigating strategies and controls as well as benchmarks for success.

#### vii) Innovation

The USE Program presents an innovative research and development approach that utilizes the best and most innovative technology component in the market with a credible research and analysis component. The Election Commission believes this will lead to further development of processes, technology, products and techniques that will be replicated in other jurisdictions. Included below are some of the innovative technological concepts of BALLOT*safe*:

- Security. The groundbreaking cryptographic protocols inherent in BALLOT*safe* provide elections with the highest levels of security, in terms of voter's privacy, voter verifiability, election integrity, system availability, and access control. BALLOT*safe* provides security through the use of a physically secure data center, complete redundancy of critical resources, and the application of cryptography at multiple levels that ensure authenticity, integrity, and confidentiality.
- *Ballot Choice Barcode*. BALLOT*safe* provides accurate and reliable automated remake of returned ballots with its ballot choice barcode feature. Using a barcode on a ballot generated through the voter's onscreen marking wizard, the ballot choice barcode can replicate the voter's selections onto the local jurisdictions optical scan readable ballot.
- Social Media Interaction. BALLOTsafe provides mechanisms for the voter to interact with social media content (Facebook, Twitter, etc) through BALLOTsafe. This is done through multiple concepts such as a Newsfeed and interactive sample ballots.
- *FPCA barcode*. BALLOT*safe* provides a feature whereby the voter can complete an FPCA through the BALLOT*safe* FPCA wizard with an absentee data barcode. This barcode provides for the automated exchange of the voter's information from the FPCA through an FPCA import module, and into the local voter registration processing queue. This reduces the need to manually enter voter information.
- *UOCAVA community forum.* With BALLOT*safe*, ES&S and Scytl have established and will maintain a pipeline of ideas, techniques and best practices of election officials and their services for UOCAVA voters. This is done through a secure online data repository and message board.

### viii) Scalability

The USE Program has been established with respect for the variances in election cycles, the electorate and changes in election statute, law or rules. Thus, BALLOT*safe* has been designed to meet a broad range of voter and election official needs now and in the future without impact to its level of performance or efficiency. BALLOT*safe* is constructed using a modular architecture with dynamic lifecycle management technology similar to OSGi. This allows for enhanced flexibility and scalability. The BALLOT*safe* solution is the most scalable in terms of:

- Usage increases in the number of voters and number of ballots styles it can support;
- Impact changes to and increases in the types of voters and their requirements it can support (i.e. extendable to other types of voters);
- Security changes to and increases in the types and number of changing threats it can mitigate and protect against; and
- Scope changes to and increases in the features and functionality which it employs.

Furthermore, the agreement with ES&S and Scytl is to obtain all of the existing features and functionality of BALLOT*safe* regardless of current need. With the ability to access and use features on an as-needed basis thereafter, growth and use of the product will meet the demands of tomorrow as easily as the demands of today.

### ix) Collaborative

The Shelby County, Tennessee Election Commission has designed the USE Program to be a collaborative program involving key election technology providers – ES&S and Scytl, reputable academic researchers from Cal Tech University and University of Utah, and other election jurisdictions through a data and experience sharing portal in BALLOT*safe*. This consortium of election officials, election service and system providers, and researchers will collaborate together to address and improve the absentee voting process. To do this, a six-sigma approach will be used to improving existing business processes:

- *Define* the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current processes based upon data analysis to create an improved process for future elections.
- *Control* the future election process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

## x) Cost Benefit Analysis

Each major component of BALLOT*safe* can separately, or in total, be evaluated for ROI against current processes and associated costs. The ROI analysis is provided in the Budget Proposal.

#### xi) Security Measures

The USE Program will provide administrative, technical, and physical controls to protect voter personal identifying information (PII) and sensitive election material. At a minimum,

**administrative** security controls include personnel training and awareness, adherence to written privacy policies, separation of duties, use of tamper evident seals, and document control.

**Technical** and **physical** security controls include protections afforded by ES&S and Scytl through the BALLOT*safe* solution. First, the BALLOT*safe* application is hosted in a secure Tier III data center behind a layer of redundant firewalls and where it is under 24/7 physical and application monitoring to ensure the security, health and integrity of the system around the clock. The infrastructure, including all hardware, software, and security controls are also monitored by trained onsite professionals. Physical and logical access control is also extremely limited to authorized personnel and is properly logged.

Second, BALLOT*safe* is run on hardened operating systems updated with the latest security patches. The BALLOT*safe* application is also digitally signed to ensure its integrity and is executed using Java Virtual Machines that require the software to be free of any maliciously inserted source code. At the application level, each connection over the Internet is required to utilize the HTTPS protocol to establish a separate authentic and encrypted communication channel with each user. This also allows the voter's web browser to seamlessly verify the authenticity of the web domain. Sensitive election materials such as ballot definitions are digitally signed to protect integrity and are encrypted while in transit. All personal identifying information (PII) is also protected through application level encryption and digital signatures. Furthermore, advanced routines are employed to protect voters' identifying information from ever being associated with their ballot selections.

#### Schedule and Milestones

The Shelby County, Tennessee Election Commission has identified the following as the initial schedule assuming an award date of August 1, 2011. During Phase 1, a detailed schedule will be agreed upon by the program team.

### i) Initiation and Planning Phase

Start Date: August 1, 2011 Duration: 45 days

The initiation and planning phase will initialize the project and introduce all stakeholders. During this phase, full project management and quality management plans will be developed. These will include a detailed schedule, work breakdown structure, statement of work with each sub-contractor, incremental project goals and approach to achieve them, and risk management plan.

Milestones/Deliverables:

a) Completion of Project Management Planb) Completion of Quality Management Plan

#### ii) Background Research and Specification Phase

Start Date: September 15, 2011 Duration: 60 days

With the program stakeholders, this phase will first consider the procedural and technological measures currently being employed to address UOCAVA voting barriers and establish a benchmark of success in this area. According to this analysis, the project team will conduct research into technological, legal, and logistical requirements which affect the development, feasibility, sustainability, and acceptance of an improved UOCAVA voting solution amongst the stakeholders. The approach will lead into a detailed requirements gathering and specification development effort to capture the analysis into quantifiable measures necessary to improve the UOCAVA voting process. This will result in procedural and technological requirements and specific information will be identified for each phase of the UOCAVA voting process. Much of these will be addressed directly through BALLOT*safe* while others will be addressed through policy changes.

Milestones:

- a) Completion of Requirements Specification Document
- b) Completion of Technology Modernization and Sustainability Plan
- c) Completion of initial test plan and test cases for technology modernization

#### iii) Technology Modernization

Start Date: November 14, 2011 Duration: 305 days

The technology modernization phase will provide for the customization, activation, and outreach efforts in preparation for the first election and continuously through the 2012 election cycle.

- Customizations Based on requirements and the specification developed in Phase 2, BALLOT*safe* and other systems will be customized to address Shelby County's requirements such that UOCAVA voters are best supported.
- Voter Education During this phase, voters will be notified of the modernization and how it impacts them through multiple communication channels.
- Integration and Testing The technology modernization effort will include an integration and test period where each component of the solution is tested and individual test cases are verified to achieve the proper results prior to going live to voters.

### Milestones:

- a) Technology Modernization Completion Presidential Preference Primary
- b) Technology Modernization Completion Primary Election
- c) Technology Modernization Completion General Election

## iv) Election Operations and Analysis Phase

Start Date: January 9, 2012 Duration: 305 days

The election operations and analysis phase consists of iterations of elections followed by a period of analysis and reporting. Specifically, each 2012 Federal Election will be supported by the USE Program to enhance the technology and services provided to UOCAVA voters. Each progressive election will include greater enhancements to achieve the incremental goals established in phase 1. The incremental goals are designed to progress toward achieving the full program goals and objectives. After each election, the program team will collect data, analyze statistics and trends, consider environmental and circumstantial factors, and determine findings against the incremental goals and objectives of the program. Based upon these findings, the team may decide to continue with the current approach or to make alterations to the program plan.

Milestones:

- a) Presidential Preference Primary Completion
- b) Completion of Election Analysis and Assessment Report Presidential Preference Primary
- c) Primary Election Completion
- d) Completion of Election Analysis and Assessment Report Primary Election
- c) General Election Completion
- f) Completion of Election Analysis and Assessment Report General Election

## v) Final Analysis and Reporting

Start Date: November 12, 2012 Duration: 90 days

At the conclusion of the 2012 election cycle, the final analysis and reporting phase will collect the relevant data from the 2012 General Election(s) as well as reports and data from the previous elections. This will include data related to the financial, programmatic, technological, and procedural factors of the program. During this phase, the final data will be analyzed by the program team to identify trends and ascertain important data points which will be used for generating findings and conclusions. This analysis will include considerations of environmental and circumstantial factors as well as an audit of anomalies reported. The findings and conclusions will include a comparison of the results against the goals and objectives, a report on lessons learned, and a final cost-benefit analysis.

Milestones:

a) Completion of USE Program Final Report

## Reports

### i) Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Shelby County, Tennessee Election Commission will prepare quarterly programmatic and financial progress reports. For the purposes of the USE Program, these reports will be prepared separately.

The programmatic report will provide

- Overall status
- Goals and Objectives progress
- Highlights during current reporting period. This includes current activity, accomplishments, and major and minor milestones met
- Highlights scheduled for next reporting period.
- Milestones. This is a log of major milestones, the goal date, and the current status
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status.
- Open Issues. This is a list of open issues and actions items being managed during the reporting period.

As required by federal regulations, financial reports will be submitted quarterly no more than thirty (30) days after the reporting period on OMB SF425.

The following programmatic and financial progress reports will be prepared:

a) Fourth Quarter 2011 Programmatic and Financial Progress Reports

b) First Quarter 2012 Programmatic and Financial Progress Reports

c) Second Quarter 2012 Programmatic and Financial Progress Reports

d) Third Quarter 2012 Programmatic and Financial Progress Reports

e) Fourth Quarter 2012 Programmatic and Financial Progress Reports

f) First Quarter 2013 Programmatic and Financial Progress Reports

#### ii) Data collection points reports

There will be several data collection point reports prepared throughout the USE Program. For the purposes of the program, these will be called Election Analysis and Assessment Reports (EAAR). Each EAAR will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Total number of voters with accounts
- Number of first time voters accesses
- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned

- Number of ballots not returned
- Types and number of problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

The following EAAR's will be prepared:

a) Presidential Preference Primary EAAR

- b) Primary Election EAAR
- c) General Election EAAR (will be incorporated in the Final Report)

## iii) Final Report

The USE Program Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

### iv. Management Approach

### Introduction

ES&S and Scytl have formed a strategic alliance to provide the necessary technology and tools to allow Shelby County to meet the proposed research goals and grant evaluation factors for the purpose of assisting UOCAVA voters. The Shelby County, Tennessee Election Commission intends on using an organized project management methodology with ES&S and Scytl to achieve these goals in a sustainable and organized way. The approach will incorporate formal financial management and project management principles. Furthermore, the program will incorporate important stakeholders and experienced researchers to help guide the direction of the program and analyze the results. At a minimum, stakeholders will include military and overseas voters, local election personnel, and election officials from other jurisdictions. This cooperative of the Shelby County, Tennessee Election Commission, election officials, election service and system providers, and researchers will provide an important steering committee for the direction and execution of the project. Furthermore, this approach will utilize six-sigma principles for improving existing business processes:

- *Define* the problem, the voice of the customer (i.e. the voter), and the project goals.
- Measure key aspects of the current process and collect relevant data.
- *Analyze* the data to investigate and verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered. Seek out root cause of the issue under investigation.
- *Improve* or optimize the current process based upon data analysis to create an improved process for future elections.
- *Control* the future process to ensure that any deviations from goals and objectives are corrected before they result in issues. Implement control systems and monitor the process.

## **Project Organization**

Shelby County Tennessee Government is applying for this grant on behalf of the Shelby County Election Commission. Shelby County Government has extensive experience managing federal grants of various amounts, from the \$25 million annual grant for Head Start services to much smaller grants from a number of federal agencies.

## **Project Director**

The Shelby County, Tennessee Election Commission will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

## i) Project Steering Committee

The project steering committee will be comprised of the project director, project manager, key personnel from ES&S and Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with the strategic goals and objectives and key factors in Section 0.

## ii) Project Manager

Richard Holden, Administrator of Elections for Shelby County Government will serve as project manager for the USE Program, with assistance from Election Systems and Software (ES&S).

ES&S maintains a global team of PMI certified Project Management Professionals and Elections Experts with specific experience in election solution implementations. The ES&S Project Management Office (PMO) has over 285 years of combined elections experience, which has allowed the PMO to develop election specific best practices to accommodate the unique and ehallenging aspects of the election industry. This team of professionals is trained to manage projects pursuant to the Project Management Institute's project management principles. Each Project Manager is supported by a team of Technical Engineers, Subject Matter Experts, and Support Specialists to assure that each aspect of the project is managed effectively and efficiently.

### iii) Project Research Team

The Project Research Team will consist of researchers from Cal Tech University and University of Utah and election research experts from Scytl. The research team will coordinate with the project manager and will be responsible for data collection and analysis. The research team will form hypotheses and will report findings. All research products will be validated with the steering committee which will prepare the conclusions.

#### **Project Resources**

### i) ES&S

ES&S and Scytl will work collaboratively to leverage the strengths of each company for the purpose of installing and supporting the BALLOT*safe* system. Specifically, ES&S will provide development expertise in the areas of system integration for voter registration and election management systems. The ES&S training department will provide instructional information and facilitate training activities. The ES&S support group will install and coordinate the usage of BALLOT*safe* with Scytl subject matter experts. The ES&S Helpdesk will provide 1<sup>st</sup> and 2<sup>nd</sup> tier level support to local election officials and ES&S and Scytl will work jointly to provide any 3<sup>rd</sup> tier level support required.

#### ii) Scytl

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. For the USE Program, Scytl will provide the BALLOT*safe* solution, election experts, and contribute to the research and analysis efforts with their dedicated research and development (R&D) department.

#### iii) Academic Researchers

The USE Program will utilize outside academic researchers – Michael Alvarez and Thad Hall – for some of the research and analysis efforts. In their academic careers, they have focused on elections, voting behavior, election technology, and research methodologies. The Shelby County, Tennessee Election Commission believes that the addition of these experts will enhance the quality of the program's research and assist in tackling some of the prevalent challenges facing democratic elections.

#### **Project Strategic Goals**

The UOCAVA System Enhancement Research (USE) Program will deploy state of the art secure online tools and will assess the ability of such tools to improve the participation and voter experience of the overseas voter community. At the same time, the program will propose and

analyze the implementation of efficient and innovative technology and processes to reduce the costs and the error rate at each point in the absentee voting process, particularly in the processing of documents and ballots received from voters.

**Goal:** Provide successful, sustainable, and affordable electronic tools that will improve absentee balloting success rates for voters covered by UOCAVA.

# **Objectives:**

- Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population in the jurisdiction.
- Improve the rate of completed UOCAVA voting transactions from registration to ballot return.
- Increase the percentage of UOCAVA voters participating and voting in Federal elections.
- Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process.
- Provide tools and services that can benefit other jurisdictions.
- Provide security measures to protect users' personal identifying information and any transmitted election material.
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives.

**Hypothesis:** By providing a repeatable and consistent portfolio of innovative tools and services over multiple election cycles to support overseas voters (independent variable), Shelby County will see an increase of ballots successfully returned by overseas voters either equal to, or greater than the percentage of ballots returned by the general absentee voting population (dependent variable).

<u>Plan</u>: Implement tools and services provided by ES&S and Scytl in a phased fashion to baseline, research and test their utility, functionality, risks, benefits and costs for improving Shelby County's capabilities to support its overseas voter population.

# **Research Methodology**

The USE Program will provide for a research effort in parallel and in collaboration with the technology innovation and election support aspects. As a critical component, the research effort will extract data from and provide inputs into the overall project. Primarily, the project research team will analyze and measure the data points of current processes, identify each process and the elements which are related to it, provide suggestions for improvements, project the effectiveness of modifications, and measure and report on progress throughout the project. The following sections outline the primary concepts in the research methodology.

# i) Analysis and Reporting

The project research team will be responsible for preparing the Election Analysis and Assessment Reports (EAAR) and the final report. This will include the data collection, analysis, considerations, and findings. The research team will work together with the steering committee to draw conclusions and finalize each report.

#### ii) Analysis and measurement of current processes

Part of the research approach is to conduct analysis and measurement of the current processes. The project research team is already conscious of the challenges facing overseas voters and is prepared to suggest ways to grow and adapt services and support technologies to better meet their needs. As a starting point, the Shelby County, Tennessee Election Commission knows firsthand that the logistics of overseas absentee voting is inherently difficult. Delays and limitations in traditional mail service can slow and, in some case, prevent mail delivery and return. Traditional mail cannot always reach military voters involved in rapid troop movements or find overseas citizens who are located in remote locations. In addition, although active duty military members complete Federal Post Card Absentee (FPCA) voting requests, sometimes this process cannot keep up with multiple address changes over the course of a year.

Furthermore, Shelby County citizens are likely to experience widely divergent voting experiences depending upon their country of residence. Worldwide postal delivery systems vary, and U.S. postal system coordination with other countries also varies widely. The aforementioned are but a few of the well known challenges faced by overseas voters. These challenges will be addressed and cataloged by the research project team in an effort to design and deploy the most impactful and meaningful technology solution for voters.

### iii) Technology Enhancements

While Shelby County is already aware of many areas where BALLOT*safe* can alleviate the difficulties faced by voters, this portion of research effort will seek to refine and propose exactly how BALLOT*safe* can reach voters and provide them tools to fully participate in the absentee voting process. This effort will focus on meeting the specific needs of Shelby County's voters in a significant, sustainable, impactful, innovative, and scalable way. The expectation is that the use of BALLOT*safe* will mitigate or eliminate almost all registration and ballot delivery difficulties faced by UOCAVA voters. The following provides a description of proposed modification with BALLOT*safe*, the justification, and the projection for the modification for each stage in the absentee voting process.

Stage	Description of Modification	Justification	Projection
Voter Registration	BALLOT <i>safe</i> will work in coordination with online voter registration tools and procedures to provide information to voters, enhance their voter registration interaction, and track the progress of the registration process.	Traditional postal delivery is much slower than electronic delivery and does not provide easy tracking of progress. Some voters also experience difficulty completing the registration form correctly.	The provision of online electronic assistance to voters in an intuitive way will increase the number of voters who successfully register to vote on time.
Absentee Ballot Request	BALLOT <i>safe</i> will provide an online absentee ballot request wizard which will guide the voter through the completion and return of the AB request. Further, this process will also allow the voter to setup an account on BALLOT <i>safe</i> to track the return and processing of the AB request. With an	Traditional postal delivery and return of ballot requests introduce unpredictable delays into the process which delay future steps. Voters can often	The provision of an online electronic ballot request wizard will shorten the time required to deliver ballot requests and will help ensure voters complete them

	account, the voter will also be able to setup email reminders to complete requests for each election.	forget when a ballot request is due for an election or may complete it incorrectly.	correctly.
Absentee Ballot Delivery	BALLOT <i>safe</i> will provide online ballot delivery of precinct specific ballots via its secure and accessible online portal. Voters will be notified by email of ballot availability. To assist in the ballot delivery, the BALLOT <i>safe</i> online portal provides instructions for all screens, a help and support section to assist with multiple help topics, a secure messaging service to the voter's local election official, a newsfeed to provide the latest important news items, and other helpful tools.	Traditional postal delivery of ballots is lengthy and unpredictable. It is also costly in terms of logistics, printing, and mailing. Voters who often move or are in inaccessible areas receive ballots late or not at all.	The electronic delivery of ballots through a secure internet based portal will provide consistent access to eligible voters which will improve the successful completion and return rates of ballots.
Absentee Ballot Marking	BALLOT <i>safe</i> will provide an intuitive onscreen marking wizard which conforms to the highest usability standards and has been tested for use with a broad spectrum of assistive devices which may be used by voters with disabilities. The ballot marking wizard also provides conventional protections against common mistakes made by voters, including over votes and under votes. Multiple languages, write- ins, straight party voting, candidate rotation, and other critical ballot marking requirements are also supported. The ballot marking wizard always concludes with a review screen where the voter can confirm the selections made or elect to change them before generating the marked ballot.	Some absentee voters have difficulty understanding ballot content and completing ballots correctly. Voters with disabilities face significant problems marking paper ballots. Furthermore, manual duplication is often required of ballots which are returned. When a voter uses the onscreen marking wizard, BALLOT <i>safe</i> provides a mechanism for the automated replication onto an optical scan ballot.	Voters who use an intuitive and accessible onscreen marking interface will have a higher probability of completing the ballot correctly which will increase the number of ballots returned successfully. The ballot replication mechanism with BALLOT <i>safe</i> will provide greater operational efficiencies in the return processing of the ballot.
Absentee Ballot Return and Tabulation	BALLOT <i>safe</i> will provide voters with exact state and county specific return information along with the ballot and will help facilitate the correct return. To provide faster and more accurate processing, BALLOT <i>safe</i> will also use ballot tracking barcodes to assist in the correct receipt and tracking of ballots. Furthermore, ballots may contain the ballot choice barcode which assist in the automated duplication of returned paper	Voters can get confused or have misunderstandings about how and when to return their ballot. Voters are often not aware of when their ballot is returned and if it was accepted. Furthermore, without	The use of an online electronic portal to provide correct return information and return documents will improve the ease and rate of successful return of ballots. Automated interfaces and the use of

automated interfaces, there are delays in the processing and tracking of ballots. barcodes will shorten the processing delay and shorten the time it takes to provide tracking information to voters.

#### **Performance Management**

#### i) Performance Management Approach

To ensure that the project is developing as expected, Performance Management measures will be used during the project life cycle. The project performance objectives are as follows:

- To achieve the USE Program goal and objectives while testing the hypothesis in a quantifiable and reportable way
- To deliver the agreed project outcomes on schedule and within budget.
- To manage the project using a defined and documented methodology.

There are three major processes in performance management:

- **Performance Planning**: Performance planning is a process that supports overall project planning and should be performed regularly throughout the project lifecycle. Performance planning is performed in parallel with other planning processes and establishes a performance threshold for each major project milestone.
- **Performance Assurance**: Performance assurance is the planned activities of a project that monitor all other performance management processes to ensure that the project will meet the performance objectives. The project steering committee will be responsible for performance assurance.
- **Performance Control:** Performance control is the monitoring and analysis of certain project results and data to determine if they comply with the relevant performance standards and performance objectives such as meeting the project goal and objectives in Section 0. Analysis is performed to determine ways to eliminate causes of unsatisfactory results. The performance control activity will also include taking remedial steps to address unsatisfactory results and progress toward the project goals.

#### ii) Performance Measurements

The following are the initial performance measurements indicated for each of the project objectives. These measurements will be defined in greater detail during the performance planning.

Objective	Measurement of Success
Improve the rate of completed UOCAVA voting transactions from registration to ballot return.	At each step in the absentee voting process, the number of voters who complete each phase of the process increases. This will be measured on a per election basis, comparing previous election of that type to the current election. For example, the 2012 Primary Election will be compared with the 2008 Primary Election.
Increase the percentage of UOCAVA voters participating and voting in Federal elections.	For each Federal Election, there is an increase in percentage of UOCAVA voters who participate in at least one portion of the voting process.
Reduce the failure rates for UOCAVA	Based on a comparison of the average failure rates for each

voters experienced in each of the various stages of the absentee voting process.	stage in the absentee voting process with the failure rates of the current election, there is a decrease in the failure rate in each stage.
Provide tools and services that can benefit other jurisdictions.	The solution provided supports the legal, procedural, and technical requirements of other jurisdictions.
Provide security measures to protect users' personal identifying information and any transmitted election material.	Data collected through system audit logs, internal auditing, and interactions with voters does not indicate that any user's personal identifying information or sensitive election material was compromised in any way.
Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives	Reports provided through the USE Program include reliable data, complete analysis, and discerning conclusions for each of the objectives above.

#### **Risk Management**

#### i) Risk Management Plan

A Risk Management Plan, including procedural and security risks, will be implemented in order to identify the risks that could prevent voters from participating in the voting process. These risks will be focused on identifying possible obstacles in the process, design, logistics and implementation of different procedural steps during the election process. Risk management activities will be conducted to minimize negative risk impacts and maximize the positive (opportunity) risks identified for the project in order to meet the project's objectives.

The purpose of the Risk Management Plan is to describe how risk management activities will be organized and performed during the project's life cycle. Risk management activities are:

- Risk Management Planning. Determine the approach to risk management
- **Risk identification**. Identify all known project delivery risks, system security risks, etc.
- **Risk Analysis.** Perform an assessment of the probability of occurrence and potential impact of each risk
- Risk Response Planning. Create action plans to manage the identified risks
- Risk Monitoring and Control. Monitor, review and update risk status and plans
- Risk Closeout. Document lessons learned

The risk management plan does not address the responses to individual risks – these are documented in the Risk Log.

Risk planning is an iterative process, beginning as early as possible in the project and concluding at project close-out. The approach to and appropriateness of risk management activities should be reviewed throughout the project at the regular project status meetings, as defined above.

The risk identification activity will:

- Commence at the Project planning stage, be repeated at intervals as defined by the project and conclude at Project Closeout.
- Identify a comprehensive list of potential risk events that have a negative (threat) or positive (opportunity) impact.

The identification of risks will be based on several sources, including:

- Examining each element of the project work breakdown structure
- Comparing the current project with previous similar experiences
- Interviews with the stakeholders

Analyzed risks will be prioritized to identify the top ten risks with threats and opportunities. When selecting the top ten risks, consideration will be given to those risks with overall rating of "HIGH" as well as risks that are important to the customer or other stakeholders. The remaining risks that will not be the focus of immediate risk management effort will be reconsidered at monthly intervals.

Risk Response plans (Risk mitigation plans) will be developed for both threats and opportunities for each of the top 10 risks selected from the prioritization process.

Deliverables:

- **Risk Management Plan**: This document describes how risk management activities will be organized and performed during the project's life cycle.
- **Risk Log**: This document contains the details of all the risks identified, especially the ones with higher impact. This document will contain the following for each specific risk identified:
  - o The risk owner who is the person responsible for managing the response plan
  - o The risk response strategy that will be used
  - o The description of the mitigation or contingency plan
  - o Any stakeholders impacted by the risk
  - o The cost of the risk response
- **Risk Mitigation plans**: This document, one for each of the high priority risks detected, describes the risk details, planned mitigation actions and possible contingency plan(s).

#### ii) Security Risk Assessment

Security risks are also considered for detecting possible issues that could damage the election accuracy or voter privacy. A security risk assessment will be performed to ensure that security risks are properly considered and mitigated against.

To perform the Security Risk Assessment, the following steps will be executed:

- a. <u>Assets Identification</u>: The assets managed or accessed by the election processes shall be identified as well as the interactions with them and their importance/value (e.g. voter credentials, votes, ballot box, election configuration ...).
- b. <u>Issues/Threats Identification</u>. Identification of the adverse actions, such as workflow execution problems or security threats that could affect the assets of the election. This includes the analysis of the context that generates these issues.
- c. <u>Issue/Threat Assessment</u>. An estimation of the complexity of the issue, the occurrence probability, and the impact in case it happens.
- d. <u>Controls/Countermeasures identification</u>. Identification of measures that are reducing the issue/threat probability or the impact level. The effectiveness of these controls shall be evaluated in order to estimate the issue probability/impact mitigation.
- c. <u>Risk Assessment</u>: Finally, an estimation of the risk level that the voters are facing is evaluated combining the issues/threats assessment and the implemented controls/countermeasures studies.

# 1) Current and pending project proposal submissions

Title of proposal and summary: N		NA	
Source and amount of fun	ding:	NA	
Percentage of effort devoted to each project:		ect:	NA
Identity of prime applicant:			NA
List of subcontractors:			NA
Technical contact:	NA		
Period of Performance:	NA		
Award period:	NA		
Award amount: NA			
Man months: NA			
Relationship (if any) with the current request: NA			

#### 2) Qualifications

#### Introduction

To assist personnel from Shelby County, the Election Commission has selected ES&S and Scytl to provide operational, research and technology support with their key personnel list below. Shelby County believes ES&S and Scytl have the best product and personnel to provide the services and support sought for the EASE grant execution in Shelby County.

#### Key Personnel - Shelby County, Tennessee Election Commission

#### Shelby County Election Commission

#### Robert D. Meyers Title: Chairman

Mr. Robert D. Meyers is certified as a civil trial specialist by the Tennessee Commission on Continuing Legal Education and Specialization and the National Board of Trial Advocacy. He has also been selected for inclusion in the 2007 Edition of Best Lawyers in America and Mid-South Super Lawyers.

Mr. Meyers received his B.S. degree from the University of Tennessee at Martin in 1979. He received his B.S.N. degree in 1981 from the University of Tennessee at Memphis, and his J.D. degree from the University of Tennessee at Knoxville in 1986. He was a member of The Tennessee Law Review and president of the Student Bar Association.

Mr. Meyers has varied litigation experience. He has defended companies and individuals before courts in Tennessee, Mississippi, Arkansas, Alabama, Texas, Georgia, Louisiana, Indiana, and Virginia. Mr. Meyers has been instrumental in assisting clients in dealing with employee medical issues including ADA, FMLA, and workers' compensation concerns.

Mr. Meyers also has extensive experience representing public employers in claims brought under Title VII, § 1981 and § 1983. Mr. Meyers is admitted to practice before the state courts in Tennessee and Arkansas, the federal district courts in Eastern, Western, and Middle Tennessee and Eastern and Western Arkansas, the Sixth Circuit Court of Appeals, and the United States Supreme Court. He is a member of the Memphis, Tennessee and American Bar Associations. He is also a member of the Defense Research Institute's Employment

#### **Richard Holden, Administrator of Elections**

Mr. Richard L Holden is certified as an administrator of elections in Tennessee. He has 14+ years election experience serving in Shelby County. Mr. Holden served as an Election Commissioner prior to being certified as administrator of elections.

Mr. Holden has extensive experience in electrical engineering and factory automation. . He has led innovative changes to county elections processes. His work with computers and software assists the election commission in being on the cutting edge. He has served as customer advisor to election automation vendors at international conferences. Shelby Election Commission is among the national leaders in adopting technology to assist voter participation and improve the voter experience.

#### Key Personnel - Election Systems and Software

# Thomas H. Ferguson, National Sales Director, Electronic Ballot Access, Election Systems and Software

Thomas Ferguson is currently serving as the National Sales Director, Electronic Ballot Access and an Election Product Specialist for ES&S. He has approximately ten years of government management experience as the Director of Elections for the Office of the Secretary of the State of Connecticut. Prior to taking the position with the state, Mr. Ferguson served as the Registrar of Voters for the Town of Manchester, Connecticut for six years. Additionally, he is a pastpresident of the National Association of State Election Directors. During his tenure with the Secretary of the State, he was the Project Manager for the development and implementation of the Statewide, Centralized Voter Registration System. Mr. Ferguson was also the Project Manager for the development of Connecticut's browser based Campaign Finance Information System, as well as systems that house and manage the Connecticut Statement of Vote, Annual Election Calendar and the certification criteria for Connecticut's chief polling place officials. He has an extensive elections and project management background from his 25 years of work and experience in local and state elections.

#### Peter M Zelechoski, MBA-TM, CISSP, CISA, Election Systems & Software

Mr. Zelechoski has 9 years experience in the voting systems business sector with experience at county and state levels (US) and in international countries defining, customizing, and deploying voting systems, and operating voting systems/machines in elections. Mr. Zelechoski has experience as president, board, committee chair and committee member levels for large and small non-profit and not-for-profit groups. With 30+ years experience in computer systems, he has hands-on experience with data interchange in financial, business, and election applications and as an architect for computer systems integration across platforms, networks, security boundaries. Mr. Zelechoski is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), a member of IEEE P1622 Voting Systems Electronic Data Interchange standards workgroup, and a member OASIS EML task group (Election Markup Language). He has a Master of Business Administration in Technology Management.

#### Paul Miller, Business Development Manager, Scytl USA, LLC

Mr. Paul A. Miller, a former State and County Elections Official, is a highly qualified Project Manager, Elections Subject Matter Expert, and Technologist with more than 30 years'+ experience in technology and software development industries, foremost being in State and County Government Elections. He has been called upon by the EAC time and again, to provide Election Subject Matter expertise to panels, workshops, working committees, and testimony before the EAC commissioners. He was selected by the National Association of State Elections Directors (NASED) to serve as one of two NASED representatives to the Technical Guideline Development Committee (TGDC). The TGDC is a small panel of national experts tasked to work with the EAC and NIST to draft next generation voting systems standards.

Mr. Miller's election related experience has made him a nationally known subject matter expert within the elections community. Beginning with his tenure as Assistant Elections Superintendent-Data Processing in King County to Senior Technology/Policy Analyst at the Washington Secretary of State, he has gained a comprehensive knowledge of County Administrative Processes, Election Processes and Procedures, State and local Voter Registration Databases, Voting Systems, State Certification procedures, the Federal Testing and Certification Processes, Voluntary Voting System Guidelines and Federal and State Election Statutes. He has led innovative changes to county elections processes, most notably the most extensive use of its day in the nation of high-speed scanning to sort, process, and validate signatures in the absentee return ballot processes. He led the state's efforts to completely modernize its petition/signature checking processes, upgrade its voting system certification program in a high-visibility environment, and develop the state's HAVA- compliant Voter Registration System.

After being the state project manager for the 2010 implementation of U.S. Federal Voting Assistance Program's Electronic Voting System Wizard project in Washington state, Mr. Miller joined Scytl as Business Development Manager in April 2011.

#### Aaron Wilson, Project Engineer, Scytl USA, LLC

Mr. Wilson serves Scytl as a project manager and engineer for its U.S. based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification and, before joining Scytl, was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of election and voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

#### Thad E. Hall, Ph.D. (Researcher)

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* (Princeton University Press) and *Abortion Politics in Congress: Strategic Incrementalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

#### R. Michael Alvarez, Ph.D (Researcher)

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, *New Faces, New Voices: The Hispanic Electorate in America*) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal *Political Analysis*, and co-director of the Caltech/MIT Voting Technology Project.

# v. Budget Proposal

Direct Labor	\$0
Administrative and Clerical Labor	\$0
Fringe Benefits and Indirect Costs	\$0
Travel	\$0
Subcontracts / Sub Awards (see attached narrative)	\$525,201
Consultants	<b>\$0</b>
Materials and Supplies	\$0
Other Direct Costs	<b>\$0</b>
Return on Investment (see attached narrative)	21%

# Shelby County, TN Budget Information Non-Construction Program

Under the USE program, BALLOT*safe* will be offered by ES&S-SCYTL as a software as a service (SaaS) model in order to facilitate its adoption and use by jurisdictions across the United States and its Territories in a cost effective manner. This model has several price components: Activation and Implementation Services Fees, Annual Right-To-Use License and Service Fees during the Research Program, and ongoing Right-To-Use License Fees and Per Ballot Processing Fees after the Research Program is completed.

For the initial Research Program, which includes the 2012 Election Cycle, the following deliverables will be provided:

Activation and Implementation Services	Software License and Services - 2012
System Activation & Initial configuration	Right-to-use license of BALLOTsafe
Definition of specifications	Election Specific System Configuration
Customization to meet specifications	Secure Primary and Backup Hosting
Installation and deployment	Help-desk / Technical Support
Integration with existing EMS	Enhancements, New Releases & Upgrades
Integration with existing VR	Account Management
Training & Documentation	
Project management	

#### Budget for the participation in the USE Research Program

The budget for Shelby County to participate in the USE Research Program is \$265,954.00, as set forth below. This budgetary quote includes the Activation and Implementation Services and Annual Right-To-Use License and Service Fees through the 2012 General Election Year.

Description	Fee
Activation and Implementation Services:	
Activation, Configuration, Customization, and Documentation	\$95,500.00
System Integration	\$40,000.00
Acceptance Testing	\$10,000.00
Project Management and Research Support	\$23,625.00
Training and Documentation	\$7,875.00
Total Activation and Implementation Services	\$177,000.00
<b>Software License and Services – 2012:</b> Right-to-use license of BALLOT <i>safe</i> , Secure Primary and Backup Hosting, Help Desk/Technical Support, Software Maintenance and Support for all elections through Nov 2012	\$41,875.00
Account Management and Research Data Support	\$33,625.00
Election Specific System Configuration	\$6,300.00
Total Annual License Fees and Services - 2012	\$81,800.00
Ballot Processing Fee	\$7,954.00
Total Fees	\$265,954.00

#### **Ongoing Fees**

Following the initial phase of the Research Program, Ballot*Safe* is available for use and research in supporting UOCAVA voters, as well as disabled voters and absentee-by-mail voters. The ongoing Annual Software License and Service Fees will consist of a fixed price per year and a per ballot processing/duplication fee as follows.

Description	UOM	2013	2014	2015	2016
Annual Right-To-Use Software License	License	\$52,900.00	\$55,547.00	\$55,547.00	\$58,327.00
Outgoing Ballot Processing Fee	Each	\$1.00	\$1.05	\$1.05	\$1.10
Incoming Ballot Processing Fee	Each	\$0.25	\$0.26	\$0.26	\$0.27
Automatic Ballot Duplication Fee	Each	\$0.75	\$0.79	\$0.79	\$0.83

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#### The above fees entitle the State to the following:

- Right-To-Use License
- Upgrades and Enhancements from Product Roadmap and Bug Fixes
- Help Desk & Troubleshooting Support
- Primary and Backup Secure Hosting
- Research Data and Support
- Account Management

Should Shelby County require additional Training, Election Specific System Configuration, or other Services not included in the Ongoing Fees table above, those services will be subject to a separate charge to be agreed to by the parties.

#### Total Fees

The total fees budget (including Ballot Processing/Duplication Fees) to Shelby County for participation in the USE research program through the 2016 General Election Year is \$525,201.00.

#### Return on Investment Analysis for the USE Research Program

Based on initial analysis of information gathered, Shelby County expects over a 5 year period, to see a 21% return on investment. The enhancements and research being provided and conducted through the UOCAVA Systems Enhancement Research Program, cost and time savings will be realized for multiple costs items associated with the absentee voting process. **Overall, the easier process and technology of the USE Program will enfranchise more voters such that the number of ballots processed and registrations will increase.** 

• Return on Investment – postal mail of ballots

Currently, ballots delivered by postal mail incur per-election personnel and capital expenditures to print, package, and mail the ballots. By providing electronic ballot delivery, established in a onetime development and integration effort, there will be less costs over time as the cost to maintain the initial expenditure is much less than the per-election cost now incurred to print and mail ballots to the UOCAVA voters.

• Return on Investment – email of ballots

To support the email of ballots, it requires a significant per-election time investment from an IT official in the office to attach PDFs and address each email. By providing electronic ballot delivery via an online website, established in a onetime development and integration effort, there will be fewer costs over time as the cost to maintain the initial expenditure is much less than the per-election cost now incurred to print and mail ballots to the UOCAVA voters. • Return on Investment – duplication of ballots

Currently, ballots returned by voters who receive them by email or fax must be duplicated manually. This normally takes 2 or more people at least 5 - 15 minutes to duplicate one ballot. This accounts for the time it takes to duplicate and verify correct duplication in front of witnesses. The automated ballot duplication provided by BALLOT*safe* provides an automated work flow which reduces the number of people and time it takes to duplicate a ballot. This process also reduces the errors which are introduced and expedites the accounting which must be done. This saves time and money invested in employing many permanent and temporary election workers to perform this task.

• Return on Investment - communication with voters

The online presence of BALLOT*safe* will provide UOCAVA voters the ability to retrieve jurisdiction specific communication in the form of messages, online chat, and help menus. This will reduce the amount of support required by dedicated personnel and, thereby, reduce per-election cost associated with providing assistance.

These cost and time savings will add up to a positive return on investment. Specifically, the jurisdiction will save more money over time, by reducing per-election costs, than the amount of the initial investment through the grant. The research and analysis conducting during the grant period will collect real statistics and provide a more quantitative ROI analysis based on improved data collection policies and procedures.

#### Initial Return on Investment Calculation

		2012	2013	2014	2015	2016
BUDG	ET - actual costing	333,599	117.328	234.077	122.744	364.029
a)	Direct Labor	210,860	71,907	143,862	73,353	219,421
1.	Registration process	73,799	25,764	50,652	26.282	76,796
	Open mail, print email and data entry	42,609	14,345	28,977	14,633	44,339
	Resolve an inquiry of a voter calling to the Election Office	29,827	10,042	20,284	10,243	31,038
	Contact a voter when he/she has provided an invalid registration address, mail or email	1,364	1,377	1,391	1,405	1,419
2	Ballot request process	46,160	15,541	31,392	15.853	48.034
	Voter requests the ballot via email or fax	17,754	5,977	12,074	6.097	18,475
	Update voter record with date of request for tracking purposes	3,551	1,195	2,415	1,219	3,695
	Lookup correct ballot style for voter	3,551	1,195	2,415	1,219	3,695
	Locate correct ballot file for voter	3,551	1,195	2,415	1,219	3,695
	Sends ballot file or location of ballot file to voter via email or fax	7,102	2,391	4,830	2,439	7,390
	Voter requests the ballot via mail	28,406	9,563	19,318	9,756	29,560
	Locate correct scannable ballot	7,102	2,391	4,830	2,439	7,390
	Insert correct ballot with envelopes into mailer package	7,102	2,391	4,830	2,439	7,390
	Add postage and drop mailer package in the mail	7,102	2,391	4,830	2,439	7,390
	Update voter record with date of mailing for tracking purposes	7,102	2,391	4,830	2,439	7,390
3.	. Ballot return process	90.900	30,603	61,818	31,218	94,591
	Print email ballot image to paper	5,681	1,913	3,864	1,951	5,912
	Open envelopes	5,681	1,913	3,864	1,951	5,912
	Check signature to authenticate voter	11,363	3,825	7,727	3,902	11,824
	Update voter record with return date for tracking purposes	17,044	5,738	11,591	5,853	17,736
	Locate/obtain correct scannable ballot if returned ballot is not scannable (i.e. returned ballot was printed on voter's printer, or returned via fax or	17.044	5 700	44 504	5.050	47 700
	email.)	17,044	5,738	11,591	5,853	17,736
	Duplicate voter choices to scannable ballot	28,406	9,563	19,318	9,756	29,560
	Compare duplicated scannable ballot with original document of voter choices to ensure no errors made.	5,681	1,913	3,864	1,951	5,912
b)	Administrative and Clerical labor	15,814	5,393	10,790	5,501	16,457
c)	Fringe benefits and indirect Costs	31,629	10,786	21,579	11,003	32,913
d)	Travel	-	-	-	-	-
e)	Subcontracts/sub awards	-	-	^	-	-

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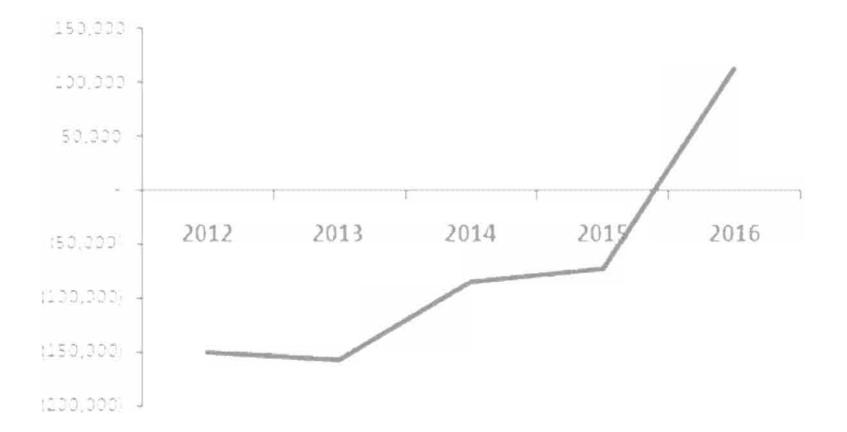
f)	Consultants	-	-	•	-	-
g	Materials and Supplies	71,584	25,305	53,672	28,459	90,54 <b>3</b>
	Ballots	23,861	8,435	17,891	9,486	30,181
	Stamps and other mailing costs	47,723	16,870	35,781	18,973	60,362
	Other office material and supplies	-	-	-	-	-
h)	Other direct costs	3,712	3,936	4,174	4,427	4,695
	Laptops and computers	2,121	2,249	2,385	2,530	2,683
	Report and publication	1,591	1,687	1,789	1,897	2,012
BUDG	ET - new costing	483,556	124.795	161,892	109,372	179.206
a)	Direct Labor	126,516	35,954	57,545	25,673	65,826
	Registration process	44,280	12,882	20,261	9,199	23,039
	Open mail, print email and data entry	25,566	7,173	11,591	5,122	13,302
	Resolve an inquiry of a voter calling to the Election Office	17,896	5,021	8,114	3,585	9,311
	Contact a voter when he/she has provided an invalid registration address,	·	•	·	·	·
	mail or email	818	689	556	492	426
2.	Ballot request process	27.696	7,770	12,557	5.549	14,410
	Voter requests the ballot via email or fax	10,652	2.989	4.830	2,134	5.542
	Update voter record with date of request for tracking purposes	2,130	598	966	427	1,108
	Lookup correct ballot style for voter	2,130	598	966	427	1,108
	Locate correct ballot file for voter	2,130	598	966	427	1,108
	Sends ballot file or location of ballot file to voter via email or fax	4,261	1,195	1,932	854	2,217
	Voter requests the ballot via mail	17.044	4,782	7,727	3,414	8,868
	Locate correct scannable ballot	4,261	1,195	1,932	854	2,217
	Insert correct ballot with envelopes into mailer package	4,261	1,195	1,932	854	2,217
	Add postage and drop mailer package in the mail	4,261	1,195	1,932	854	2,217
	Update voter record with date of mailing for tracking purposes	4,261	1,195	1,932	854	2,217
3.	Ballot return process	54,540	15,302	24,727	10,926	28,377
	Print email ballot image to paper	3,409	956	1,545	683	1,774
	Open envelopes	3,409	956	1,545	683	1,774
	Check signature to authenticate voter	6,818	1,913	3,091	1,366	3,547
	Update voter record with return date for tracking purposes	10,226	2,869	4,636	2,049	5,321
	Locate/obtain correct scannable ballot if returned ballot is not scannable (i.e. returned ballot was printed on voter's printer, or returned via fax or email.)	10.226	2,869	4,636	2,049	5,321
			-,000	1,000	~,   \	0,000

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	Duplicate voter choices to scannable ballot	17,044	4,782	7,727	3,414	8,868
	Compare duplicated scannable ballot with original document of voter					
	choices to ensure no errors made.	3,409	956	1,545	683	1,774
ь)	Administrative and Clerical labor	18,977	5,393	8,632	3,851	9,874
c)	Fringe benefits and Indirect Costs	18,977	5,393	8,632	3,851	9,874
d)	Travel	-	-	-	-	-
e)	Subcontracts/sub awards	-	-	-	-	-
1)	Consultants	265,954	61,335	64,492	65,033	<b>68,3</b> 87
	Initial set up	256 000	-	-		
	Annual subscription	-	52 900	55,547	55.547	58,327
	Ballot processing	7.954	8.435	8.945	<i>9,486</i>	10.060
g)	Materials and Supplies	42,950	12,652	21,469	9,961	27,163
	Ballots	14,317	4,217	7,156	3,320	9,054
	Stamps and other mailing costs	28,634	8,435	14,312	6,641	18,109
	Other office material and supplies	-	-	-	-	-
h)	Other direct costs	2,227	1,968	1,670	1,549	1,408
	Equipment	1,273	1,125	954	885	805
	Report and publication	954	843	716	664	604
Cost	reduction	(149.957)	(7,468)	72.185	13,371	184,823
		-45%	-5%	31%	11%	51%
Accur	mulated	(149.957)	(157,425)	(85,239)	(71,868)	112,955
ROI (F	Return on Investment) after 5 years≃	21%				

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#### South Carolina Technical Proposal for

#### Electronic Voting Accessibility Tool for Uniformed and Overseas Citizens

Federal Domestic Assistance Number BAA Number CAGE Code DUNs Number	12.217 H98210-BAA-11-0001 (b)(4)
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Proposed Period of Performance	September 2011 – August 2012

Submitted by:

South Carolina State Election Commission Marci B. Andino, Executive Director P.O. Box 5987 Columbia, SC 29250



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#### I. Technical Approach and Justification

#### 1) Executive Summary

South Carolina has historically been a leader in facilitating voting opportunities for uniformed service personnel, their dependents, and overseas civilian voters covered by the Uniformed and Overseas Citizens Absentee Voting Act of 1986 (UOCAVA). To further provide accessibility to the voting process by these voters, the South Carolina State Election Commission (SCSEC) will create an electronic tool for eligible UOCAVA voters to access, complete and securely deliver a ballot to their local election official (LEO) prior to the deadline for any election in the State.

The Electronic Voting Accessibility Tool (EVAT) will be accessible 24/7 via the SCSEC website <u>www.SCvotes.org</u> for all UOCAVA voters in the State. South Carolina conducts approximately 250 elections per year in addition to the statewide primary and general election. EVAT would allow UOCAVA voters to participate in any elections for which they are eligible.

After accessing <u>www.SCvotes.org</u>, the voter can view their voter record information continually maintained by all county voter registration offices through the Statewide Voter Registration and Election Management System (VREMS). The voter can choose an election in the near future for which they are eligible to vote and be prompted through the absentee voting process.

Voters will have the capability of viewing the status of their ballot at any time and will receive automatic acknowledgement at the time their application and ballot are received. All notification and acknowledgements will be via an email or phone text message per voter preference.

This innovative, seamless approach will allow a UOCAVA voter, no matter where they are in the world, to cast and deliver their ballot and receive receipt confirmation in a matter of minutes. Through the use of modern technology and the EVAT application, the reduction in failure rates and the increased percentage of ballots returned by Election Day will be significant.

#### 2) Goals and Objectives

- Increase the successful rate of return ballots from 71% to 100%
- Build the tool in time for use in the June 2012 statewide primaries
- Reduce costs associated with mailing ballots to UOCAVA voters

#### 2.1 Electronic Voting Accessibility Tool Description

A UOCAVA citizen will access the system through the SCSEC website, <u>www.SCvotes.org</u> where they will be presented with an option for UOCAVA voting information. In addition to South Carolina voting regulations and UOCAVA entitlements, the citizen will be presented with an option to download a voter registration application and/or complete an online request for absentee ballot.

If the citizen chooses the option to register to vote, the system will utilize name and birth date to ensure that they are not already registered to vote and will present them with a voter registration form which can be completed online. After completing the form, the citizen will download the form, sign it, scan it, and send via mail, email, or fax to their county voter registration office for processing. Another option, which is currently in place, is for the citizen to complete an FPCA form which serves as an absentee application and a voter registration application.



#### 2.1.1 View Voter Information Details

If the citizen is already a registered voter, does not currently have an application on file for absentee voting, and selects to apply for an absentee ballot, they will be presented with their personal voting information, voting districts, and a list of elections for which they are eligible. See upper portion of Figure 1 below.

OUTH CARO	LINA	Absentee Application		
1 C. C.	voter Informatio	o for allele state solo - Certifi	inate Nonsber: 215820459	
ales neg			Gen in which directions to the Effected	
	Date of Birth: 5/8/1982	Genzlers Mars	Race: VINBN	
	Residential Address: 195.RE,VUE 30-000: NO, TEP/	ELERS AGGT 29478)	Garenty: ORSENVELE	
/	Voting Prectocts Tubbs MSURTADE		Active Registered Veters: 1(%)	
	Precisci Localizet: 21/0426 BIOTET CHURCH	Presient Address: Bit TIGERYES	E AD YOU'R CITY, TRAVELING REET 20000	
<u> </u>	Vidiad Districts			
sonal	Congressional 14	SC Sanate District, 02	SE House District 117	
ormation	County Council 13	Schemf District 17	Oty Council District, 33	
	Nonicipality 325		H	Fig
\	events de ser anno ser ser			
,	sum Predicts Controls with the April Sciences			
	This size of all provide the status General design of the status		Physics terration (devices) 22,22 do and, which mere presented as painty expression	
	\			
	<sup>14</sup> Select the reason for which you are voting a	Osenteer Active Duty		
	Select the political party for which you would	like to receive a primary ballot:	Republican 💌	
(	<ul> <li>Taging the solution to be description of the sector of the</li></ul>	o the address above.		
ection	Please mail my beliet to the arkfress befow			
formation	Select the electron(s) for which you are elig	jible for an Absenter Application:		
	3/21/2013 Travelers Rest Municipality			

Prior to completing an absentee application, the voter will be presented with options for accessing the application and ballot online or by mail. See lower portion of Figure 1 above.

#### 2.1.2 View Candidates for Upcoming Elections

Voters will be allowed to view candidates for upcoming elections by selecting a specific election. Once the election is selected, the system will determine what offices the voter is eligible to vote for and display the candidates associated with those offices. This enhancement will have significant value to UOCAVA voters who may not have access to local media and candidates' campaigns. See Figure 2 below.



# SOUTH CAROLINA

OUTH CAROLINA	Contest a	nd Candidate Information
O OTTI CAROLINA		r ADAM & ICHASON Certificate Number: 235620459
Yales.org	Election: 11/6/2012 General Election	
[	PRESIDENT AND VICE PRESIDENT	
	Harry M. Morgan, President Thomas N. Sullivan, Vice President	Deniocratic
	virginia F. Elbertson, President Carlos G. Estavez, Vice President	Pepublican
	Jonathan K. Preston, President Montgomery Z. Smith, Vice President	Independent
	U.S. SENATE	
	Susan D. R chardson	Democratic
	Fredrick U. Williamson	Republican
	SCHOOL BOARD DISTRICT 17	
	Janet M. Harrison	Democratic
	Charlotte G. Lanning	Republican
L	paties. After downloading you must follow the inst	. Yourness click on the "Get My Official asilo" metan before to reconceal a number during the ballot to complete the webog process.
-		∃⊭t My OŘiču)∂ailot
	Hide Upcoming Elections	
		$\alpha$ , the subgroup of $\alpha$ , the subgroup of t
	3/21/2011 Trevelers Rest Municipality	
	6/14/2013 Statewide Republican Frimary	

Figure 2

#### 2.1.3 Completing Absentee Application

When the voter has selected the election, or elections, for which they are eligible, they will be presented with an absentee ballot application. This application will be completed online. Background program edits built into this process will significantly enhance the success rate of applications as they will be verifying that the voter has not already received a ballot for this election, and in addition, the edits will eliminate current issues experienced with legibility which is an important factor for UOCAVA voters who are not easily contactable.

When the absentee ballot has been completed, the voter will have the option of printing the application and mailing it in, or, sign, scan and attach the application to an email message to the LEO.

#### 2.1.4 Application Status Notification

A key component of this project involves personalized communication directly with the UOCAVA voter to provide notification of key events of interest. The first of such notifications is the status of a voter's application. Once the absentee application has been received and processed by the LEO, the voter will automatically receive an email or short message service (SMS), or phone text







message, notifying them that their ballot is ready to view. This SMS feature is an innovative solution for communicating with the UOCAVA voter who may not remember to follow-up on their application status as well as for those who may not use the Internet daily. The impact of this personal communication will be realized by encouraging the UOCAVA voter to continue the absentee process by connecting to the SCVotes.org website and casting their ballot.

#### 2.1.5 Ballot Status Notification

After receiving notification that their absentee application has been approved the voter will receive notification that their official ballot is available. They may then return to the SCVotes.org website where the official ballot can be accessed. Instructions will be presented to the voter that indicate they can select their voting choices online and that they must save the voted ballot to their computer and send it to their LEO by email or regular mail.

When the ballot is visible on the screen, the voter will be allowed to:

- Cast a straight party vote if voting in the General Election
- Select individual candidates for each office (see Figure 4 below)
- Write in candidates for offices which allow write-in votes
- Vote for any referenda or question on the ballot

SOUTH CAROLINA	Voter Information for all-	Ballot 9 - 13-ASOn Certificate Number: 115624434	
Etapes.org	Bection: 11/5/2312 General Election		
	U.S. Senate One Seat to FIF		
	Susen D. Richardson Fredrick U. Williamson	Democratic Republican	Figure 4
	Wr Ye in	I.	

When the entire ballot has been marked and reviewed, the voter will then have the option to print the ballot and return it by fax or mail to the LEO or, save it as a PDF and attach it to an email to the LEO. Specific instructions on security of the ballot will be presented to the voter before their ballot is printed or saved on the computer.

An automatic acknowledgement to the voter that their ballot has been received by their LEO, whether the ballot was mailed, faxed or emailed, is the second key event triggering voter communication. The voter will receive a confirmation message via SMS or email that their ballot was received. This is significant to the voter because it informs them that their ballot was received at the LEO office.

#### 2.1.6 UOCAVA Voters with an Absentee Application on File for the Year

Voters who have completed an absentee application for all elections during the calendar year will receive notification as soon as ballots for any election for which they are eligible are available.



See Ballot Status Notification above. The message will be received based on the preferred communication method given by the voter when the application was originally processed. At the time of this notification, the voter will also have the opportunity to request notifications via SMS in addition to the other available methods of communication.

#### 2.2 Key Factors of the Electronic Accessibility Tool

Factor	System Capabilities
Significance	• Immediate voter controlled access and system notifications will ensure that ballots are returned.
	<ul> <li>Seamless application in that the voter can check their voting information, apply for an absentee application, receive a ballot, complete the ballot, and return the ballot in a matter of minutes and the voter is not required to branch to other websites. All functions associated with absentee voting will reside on SCVotes.org.</li> <li>SCVotes.org is very user friendly and will have front page notification for UOCAVA voters. This site recently won the Notable State Document award by the S.C. State Library for the most user friendly website.</li> <li>Voter receives notification for every step of the process. These notifications confirm success or failure and are delivered via email or SMS.</li> <li>Alleviates current obstacles such as the time required for voter registration applications and absentee ballot materials to travel through the postal system.</li> <li>Allows voting up to the last minute on Election Day. Alleviates current</li> </ul>
	problem of voter unaware that their ballot was not received until it is too late to receive another one in the mail. Now, they can receive a duplicate ballot via the website.
Sustainable	<ul> <li>Once the system is developed, there will be no future charges for its use. This system will be a module of the current statewide voter registration system.</li> <li>Data on use and attempts to use can be generated at any time.</li> <li>For ballots returned via email or fax, no postage/envelope/ballot costs will be incurred.</li> <li>Surveys and UOCAVA voter comments will be encouraged and the results will be used to improve and enhance the system in the future. Once improvements and enhancements are made, there are no future costs associated.</li> <li>The most used method of access, i.e. Internet via computer, phone, PDA, etc., will be evaluated.</li> </ul>
Impost	No change in existing personnel job functions to support new capabilities.
Impact	<ul> <li>There is potential to reach over 80,000 citizens who are eligible for UOCAVA status. 41,000 of those citizens are military or their dependents.</li> <li>In the 2010 General Election, only 1,241 UOCAVA ballots were returned. Potentially, this tool could reach an additional 79,000 voters.</li> </ul>

Factor	System Capabilities
Strategic Approach	<ul> <li>Develop, as part of the VREMS, an online UOCAVA voter registration and absentee balloting tool that allows UOCAVA voters to log into SCVotes.org and view educational information, register to vote, check their status and voter details if they are already registered to vote, apply for an absentee ballot, vote a ballot for any election, receive notification of the status of their ballot at any time.</li> <li>This tool will leverage the VREMS for obtaining districts, offices and candidates to display a ballot for which the voter is eligible</li> <li>This tool will allow more UOCAVA voters to participate in the voting process and will provide valuable data to share with other states who have the same process.</li> </ul>
Innovation	<ul> <li>Use of text messaging and email to provide status updates and notifications to UOCAVA voters.</li> <li>Use of social media – Twitter, Facebook, etc., to let UOCAVA voters know when ballots are available, notification of upcoming elections, changes in candidate names on the ballot, etc.</li> <li>Use of smartphone, PDA, tablets, e-readers, computes and Google TV to provide notifications.</li> <li>Utilize the most advanced, C# and ASP.net, computer languages to develop an application which will generate a ballot based on any voter's S.C residence address and eligible offices and candidates associated to that address.</li> <li>Other jurisdictions with a statewide voter registration system could use this application and connect the two systems.</li> <li>Four states in the U.S. have shown interested in the SC VREMS and would benefit from this additional module.</li> </ul>
Scalability	Scaling is the ability to handle increasing demands at an acceptable performance level. The VREMS is built with scalability in mind. VREMS is architected to support both scaling-up and scaling-out. Scaling-up is achieved by adding more resources to the existing infrastructure, for example, adding memory, cores, and disk storage. Scaling-out is achieved by a robust and flexible VREMS application design that enables splitting the roles of servers into tiers (for example, separating web servers from application servers from database servers) and allowing tiers to run in load-balanced environments. This form of scaling also increases security and maintainability.
Collaborative	• All 46 counties in South Carolina will have access to this system. Any UOCAVA voter in the State will have the ability to east an absentee ballot for <u>any</u> election in the State.
Cost Benefit Analysis	<ul> <li>In 2010, \$5300.00 was spent on balloting materials and postage.</li> <li>In 2008, \$36,896.00 was spent on balloting materials and postage.</li> <li>These costs, in addition to any personnel costs to prepare the materials for mailing, would be eliminated.</li> <li>Return on Investment would be priceless because UOCAVA voters will participate without having to use the postal service and can be assured their ballot arrived.</li> <li>VREMS is already funded and nearly complete. This module would have to be initially developed and implemented with no future costs incurred.</li> </ul>



#### 3) Schedule and Milestones

#### 3.1 Schedule

The schedule for this project will be based on award date and funding availability. The estimated completion time for this project is 313 days or 10 months. If award and funding occur prior to August 2011, the EVAT may be deployed and used in the June 2012 statewide primary for Federal, State, and County level offices. The schedule for this project is outlined in Diagram 1 below:

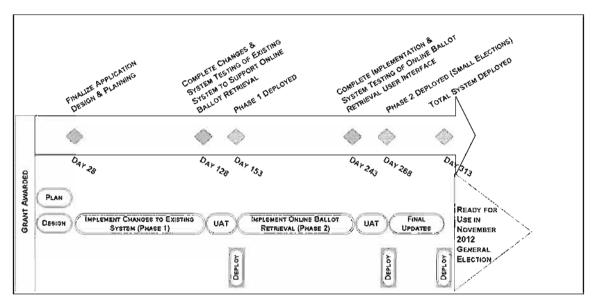


Diagram 1

#### 3.2 Milestones

Outlined below in Diagram 2, are milestones associated with this project. After the planning and designing phase, additional milestones may be added. The system will be assessed at each milestone through alpha testing by state and county election officials:

Project Work / Milestone	Time Required	Milestone	Award to Milestone Completion
Perform application design and create work breakdown structure for individual tasks	28 days		
Milestone: Finalize application design and planning		Yes	28 days
Make changes to existing system to support online ballot retrieval and perform testing (Phase 1)	100 days		
Milestone: Complete changes and system testing of existing system to support online ballot retrieval		Yes	128 days
User Acceptance Testing and Rollout Phase 1	25 days		
Milestone: Phase 1 Deployed		Yes	153 days



Project Work / Milestone	Time Required	Milestone	Award to Milestone Completion
Implement and system test online ballot retrieval user interface (Phase 2)	90 days		
Milestone: Complete implementation and system testing of online ballot retrieval user interface		Yes	243 days
User Acceptance Testing (UAT) and Rollout Phase 2	25 days		
Milestone: Phase 2 Deployed (Small Elections Only)		Yes	268 days
Make final updates to system	45 days		
Milestone: Total System Deployed		Yes	313 days

#### II. Reports

Diagram 2

The following reports will be provided:

- EVAT will produce a report containing the number of absentee applications and ballots for any election held in the State. These numbers will be broken down by county into the following categories: 1) applications requested, issued, and returned; 2) ballots requested, issued, returned before election, returned after election. This is an on-demand report that will be monitored daily prior to a statewide election and will be delivered to the FVAP weekly prior to a statewide election and 30 days after any election held in the State.
- EVAT will produce a report containing a list of the voters participating in any election and the status of their ballot. Voter personal information, except private information protected by law, will be included in this report.
- System reports will be monitored for performance and response time on a monthly, weekly, and daily basis depending on the amount of activity. If activity increases, SCSEC staff will ensure that response time to users does not suffer.
- Project status reports will be provided on a bi-weekly basis. These reports will list tasks accomplished, tasks proposed, and risks associated with the project.
- Financial progress reports containing expenses paid and account balances will be provided on a quarterly basis and within 30 days after the reporting period.



#### III. Management Approach

The SCSEC remains dedicated to supporting the voting rights of an estimated 82,000 UOCAVA voters and considers these voter rights a priority when changing programs and drafting legislation affecting voting. In 1998, the State participated in the Voting Over the Internet (VOI) pilot program managed by the FVAP. Of the states chosen to participate, South Carolina was the only state participating on a statewide basis. In 2001, South Carolina was invited, and readily accepted, to participate in the Secure Electronic Registration and Voting Experiment (SERVE) also managed by the FVAP. Unfortunately, this program was cancelled by the Department of Defense shortly before the 2002 Presidential election.

Following the South Carolina voting motto of "Every Vote Matters, Every Vote Counts" the SCSEC would like to continue in its goal to improve registration and voting access to UOCAVA voters by developing an EVAT as part of the statewide VREMS used by all 46 counties in the State. This tool, fully integrated with the voter registration database and list of offices/candidates for any election held in the State, will provide the UOCAVA voter with instant access to request an absentee application, view their candidates on the screen, receive a ballot, mark the ballot and send it to the appropriate LEO via email or postal services.

To manage development and implementation of this tool, SCSEC will contract with a project manager who will work closely with SCSEC staff, the Director and Matthew Guzzi, Information Resource Consultant, independent consultants, and consultants with NWN Corporation's <sup>1</sup> Application Development Center of Excellence. NWN can immediately deploy a highly qualified South Carolina based project team with in-depth knowledge and experience of South Carolina's state and county election operations. Rollout of this tool will be straightforward because all counties in South Carolina currently use the same voter registration system.

NWN uses the *i*SOLUTION<sup>©</sup> Methodology to ensure success throughout the project. The *i*SOLUTION<sup>©</sup> Project Management Methodology, certified by the South Carolina Division of State Information Technology and used successfully in multiple projects including 3 at the SCSEC, defines a comprehensive, orderly, and consistent process that incorporates multiple dimensions within project management: scope, resources, schedule, cost, configuration, communication, reporting, risk, and quality.

NWN's *i*SOLUTION<sup>©</sup> Suite of software, widely used in South Carolina state agencies, streamlines complex application development choices into an architected application framework for secure, robust, and high-performing applications. This software provides high-usage application capabilities that have been thoroughly tested and are production ready. Utilizing these components saves significant design/development/test time that would otherwise be required to develop this needed functionality from scratch. The time and effort saved by using NWN's *i*SOLUTION<sup>©</sup> framework means a lower cost and shorter time to completion for the solution.

<sup>&</sup>lt;sup>1</sup> The current statewide voter registration system in South Carolina is under development by NWN Corporation and will be implemented in the Fall of 2011. It is anticipated that this company would develop the Electronic Voting Accessibility Tool for Uniformed and Overseas Citizens as well since the two will interact.



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Financial management will follow strict Federal and State guidelines. The SCSEC will be responsible for accounting for all expenditures, funding levels, program controls, and outcomes. Working with the State Budget Office, State Treasurer, and State Comptroller General, SCSEC will develop and use standard financial reporting for all funding associated with this grant. SCSEC will be prepared for periodic federal audits. The State Auditor's Office will also conduct periodic audits to ensure that the SCSEC complies with all Federal and State laws, regulations, and program compliance requirements. Funds will be distributed based program progress and delivery.

Measurement for success and performance of this tool will take place numerous times during user acceptance testing (UAT) periods and during the 2012 General Election. During the UAT phases, a parallel system will be deployed to allow UOCAVA voters to participate in local elections via the tool being developed and the current voting process in South Carolina. The results of this parallel test will provide significant data to measure the success of the tool. Each process step of the tool will be closely monitored to ensure proper performance such as response time to voters, making sure the voter receives the correct ballot, and bandwidth is available to handle the amount of Internet traffic associated with the use of this tool.

South Carolina has approximately 82,000 voters covered by the UOCAVA. Many of these voters reside in remote locations with impediments and difficulties that prohibit the receipt of their ballots in a timely manner. In the 2008 Presidential election, of the 12,137 ballots issued to UOCAVA voters, only 8,668 were returned resulting in a 71% successful rate of return. The successful rate of return for non-UOCAVA voters for the same election was 97%. The primary goal of this project is to provide instant access to the voter registration and absentee voting process for UOCAVA voters and to significantly increase the successful rate of return for ballots to a percentage that is equal to that of the general absentee voting population. It is projected that this tool will increase the successful rate of return by 21% or higher.

Costs associated with mailing ballots, such as postage, envelopes, and ballots, will be significantly lower with the Voting Accessibility tool. Costs to mail ballots to 12,137 voters in 2008 were \$ 36,896. If all 82,000 UOCAVA voters participated by mail in an election, the costs would be an estimated \$250,000 per election. These cost savings, coupled with the time savings and guarantee that a UOCAVA ballot is delivered to the voter and received at the local county election office by Election Day, are invaluable to the voting process.

Potential risks and mitigating strategies:

Risk	Mitigating Strategy
EASE Grant Not Received	Continue with current process in State.
• 2012 Presidential election year presents SCSEC personnel resource challenges	Utilize independent consultants and temporary personnel.
• Award received after September, 2011 prevents test use of EVAT in	Continue with program development with no test in June primaries but have available
	Page 12 of 34





#### June primaries.

for November General Election.

The process for UOCAVA voters in South Carolina currently used, allows participation via fax and email; however, this process is cumbersome and time consuming. By modifying the current process with the EVAT, UOCAVA voters will have the capability to apply for an absentee ballot, mark the ballot, and return the ballot without waiting on their local LEO for processing. This will also allow the voter to participate in the process 24 hours per day.

The scope of this project is to design and implement EVAT based on the following objectives:

- Confirm the SCSEC's high-level, fundamental requirements.
- Discuss potential implementation approaches for the custom solution and determine the optimum approach for the SCSEC.
- Design the solution, including changes to VREMS system and creation of new online ballot retrieval interface.
- Make changes to VREMS system to support online ballot retrieval and perform testing.
- Implement and test online ballot retrieval user interface.
- Provide application support during rollout into production for small elections.
- Make final application updates to resolve issues, as needed.
- Provide application support during rollout into production for General Election.
- Provide 1 year of post-election application support.

Deliverables of the project include:

- A Project Charter (document) that confirms the business needs to be addressed; the scope, timeline, and approach of the custom implementation; and the budget for the custom implementation.
- A Requirements Document detailing the functional requirements and business rules for the proposed Absentee Voting System.
- A Functional Design Document that defines the user interface specifications of the proposed Absentee Voting System.
- A Technical Design Document that defines the technical specifications of the proposed Absentee Voting System capabilities.
- A Database Document that defines the database structure and entity relationships.



• A Test Scenario Document that identifies scenarios to be tested during the user acceptance testing. This document focuses on identifying the scenarios to be tested and does not include step by step test cases.

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- A User's Guide Document that provides assistance and helps users explore the proposed Absentee Voting System capabilities.
- Source Code for the EVAT and the changes to the VREMS system to support online ballot retrieval and the creation of the new online ballot retrieval user interface.
- Executable applications for the EVAT and the changes to the VREMS system to support online ballot retrieval and the creation of the new online ballot retrieval user interface.

#### 1) Qualifications

The SCSEC will utilize current staff, augment staff with independent consultants, and also engage NWN Corporation's Application Development Center of Excellence to design and develop the EVAT.

NWN Corporation provides clients with an end-to-end set of services that range from business systems strategy and design to IT architecture, implementation, and remote management. NWN delivers solutions to state and local government agencies and to private sector clients in almost every line of work nationally and internationally – banks, universities, manufacturers, hospitals, and more.

The SCSEC's business relationship with NWN has extended for over 10 years, during which time NWN has developed in-depth knowledge of South Carolina's state and county election operations and systems. NWN services for the SCSEC have ranged from executive consulting and project management to business analysis and application design and development.

NWN is currently working with the SCSEC to complete VREMS which is planned for rollout in the Fall of 2011. The VREMS system will offer comprehensive functionality for voter registration and maintenance, election administration, and election workers. The system will also include new capabilities to support county operations, accommodate redistricting changes needed after the 2010 Census, and enhance service to the State's voters. The new system will deliver a critical prerequisite to successful elections and the strategic foundation on which the EVAT tool will be built.

Key members of the SCSEC and NWN team are profiled below.

#### State Election Commission:

BRIAN LEACH	PROJECT ROLE:
INFORMATION RESOURCE CONSULTANT	SUBJECT MATTER EXPERT

#### CORE STRENGTHS



• Subject matter expert in voter registration and election management systems, including South Carolina's new Voter Registration and Election Management System.

TH CAROLINA

- Management of SCSEC information technology equipment.
- Proficient in development of ballots and testing of statewide electronic voting system.
- Technical management of small scale information technology projects

#### PROFESSIONAL EXPERIENCE

Brian is a self motivated individual with considerable knowledge of the voting process in South Carolina. He has been employed with the SCSEC for 5+ years and worked closely with all aspects of office automation, computer equipment, the statewide voter registration system, and the statewide voting system.

#### EDUCATION AND CERTIFICATION

BS, Computer Science

MATTHEW GUZZI	PROJECT ROLE:
INFORMATION RESOURCE CONSULTANT	SUBJECT MATTER EXPERT

#### CORE STRENGTHS

- Subject matter expert in voter registration and election management systems, including South Carolina's new Voter Registration and Election Management System.
- Over 10 years of experience in software development, testing and server setup
- Worked on both small and large scale software development projects for a fortune 500 company
- Served as the Lead Software Quality Assurance Analyst on mission critical enterprise custom software applications and infrastructure management implementation projects.
- Served as the Technical Lead for the South Carolina Department of Archives and History and coordinated our development efforts with the seven other State Partners and their Technical leads.
- Experienced with Hardware and Software installation, setup and maintenance.

#### PROFESSIONAL EXPERIENCE

Matt is a self motivated individual with considerable Information Technology knowledge. He has been employed with the SCSEC for 2+ months. Prior to joining the SCSEC he worked for Blue Cross Blue Shield of South Carolina, and the South Carolina Department of Archives and History where he served as the technical lead for South Carolina on the Persistent Digital Archives and Library System.





#### EDUCATION AND CERTIFICATION

BA History Pennsylvania State University

Certificate in Applications Programming Midlands Technical College



#### NWN Corporation :

#### PIERRE ABDEL-MALAK VICE PRESIDENT CLIENT SERVICES

#### PROJECT ROLE: PROGRAM DIRECTOR

#### CORE STRENGTHS

- Subject matter expert in voter registration and election management systems, including South Carolina's new Voter Registration and Election Management System.
- Management of multimillion-dollar mission critical enterprise custom software application and infrastructure management implementation projects on time and under budget.
- Business consulting to help customers formulate the vision, mission, and business objectives resulting in streamlined implementations.
- Implementation of project management and software development life cycle methodologies leading to consistent delivery of quality solutions.
- Administration of QA / QC and audits as well as development of plans to rescue troubled projects.
- Aptitude for anticipating and managing crisis, trouble-shooting, and problem-solving.
- Pierre has enjoyed a 10 year career with NWN Corporation and worked with a high performance established team on designing and implementing custom technology solutions using project management and software development methodologies and best practices leading to consistent delivery of quality solutions for customers.

#### PROFESSIONAL EXPERIENCE

Pierre has enjoyed a 25 year career in the information technology industry and is an experienced Program Director with proven success in leveraging information technology and business consulting to innovatively solve business problems. Pierre couples extensive technology expertise with strong leadership skills to optimize organizational processes and maximize results.

Pierre is a self-motivated achiever who leverages technology and business consulting expertise to add value for customers; a creative thinker who draws upon exceptional analytical skills to effectively architect efficient solutions to fulfill business objectives; and a leader adept at combining strategic vision with tactical execution.

#### EDUCATION AND CERTIFICATION

BS, Computer Science

Senior State (SC) Certified Project Manager



#### ANGELA JACKSON PROJECT MANAGER

#### PROJECT ROLE: PROJECT MANAGER

#### CORE STRENGTHS

- Project Manager for South Carolina's new Voter Registration and Election Management System.
- Subject matter expert in voter registration and election management processes with conceptual vision for a new web-based, centralized system.
- Customer-focused business consulting on mission-critical enterprise systems.
- Management of large-scale (\$1M+) projects utilizing a variety of project management and software development life cycle methodologies.
- Effective leadership and personnel management resulting in good employee morale and retention.
- Ability to coach project teams in the use of agile development methods.
- Angela has worked with the NWN | Application Development Center of Excellence core team since 2004, designing and implementing custom technology solutions using industry best practices leading to consistent delivery of quality solutions for customers.

#### PROFESSIONAL EXPERIENCE

Angela has enjoyed a 30-year career as an IT and Project Management professional with specific experience in Voter Registration and Election Management, Benefits Management, Customer Relationship Management, Supply Chain Management, and Enterprise Management systems.

Angela is a team player whose strong technical and professional background and experience in performing a variety of roles make her uniquely qualified to deliver effective solutions for business needs while providing exceptional service and quality.

#### EDUCATION AND CERTIFICATION

BS, General Business



#### ROBERT CROKE LEAD APPLICATION CONSULTANT

#### PROJECT ROLE: ARCHITECT AND DEVELOPMENT TEAM LEAD

#### CORE STRENGTHS

- Subject matter expert in voter registration and election management systems, including South Carolina's new Voter Registration and Election Management System and South Carolina's Electronic Voter Registration List poll book application.
- Over 14 years' experience developing business software solutions in various fields such as government, financial, insurance, sales and nonprofit.
- Technical management of multiple large scale projects for state government agencies such as the Department of Probation, Parole and Pardon Services and the Secretary of State's Office.
- Deep knowledge of NWN Corporation's *i*SOLUTION code framework.
- Strong knowledge of software architecture and design principles.
- Extensive knowledge and experience with design and development technologies such as UML, C#, ASP.Net, SQL, JavaScript, HTML, XML.
- Ability to work closely with customers to develop systems that meet requirements and provide a solution to their business needs.

#### PROFESSIONAL EXPERIENCE

Rob has a 14 year career in the information technology industry with numerous successfully completed projects. Majority of project work has been large client server or web-based line of business applications. This background combined with Rob's training in management and accounting allows him to truly understand the client's needs from both a business and technical perspective.

Rob's early background as a commissioned military officer along with his work on many software projects has given him valuable problem solving skills and leadership experience. He is a team player who is comfortable performing the many roles required of a development lead in order to deliver quality solutions for customers.

#### EDUCATION AND CERTIFICATION

BS, Management, United States Coast Guard Academy

Post-Baccalaureate Certificate in Accounting, Portland State University

Passed all sections, Certified Public Accountant Exam





JOE FESER	PROJECT ROLE:
SENIOR ARCHITECT	ARCHITECT

#### CORE STRENGTHS

- Over 17 years of experience developing software solutions in various fields: voter registration (including South Carolina's new Voter Registration and Election Management System), finance, retail, auditing, distribution, warehousing, mortgage services and code quality and analytics.
- Key focus and experience with designing, building and tuning high load large scale web and windows based applications.
- Deep knowledge of NWN Corporation's *i*SOLUTION code framework.
- Strong knowledge of software architecture and design principles.
- Extensive knowledge and experience with design and development technologies such as C#, ASP.Net, SQL, JavaScript, HTML, XML, XSLT and WPF.
- Ability to work closely with customers to develop systems that meet requirements and provide a solution to their business needs.

#### PROFESSIONAL EXPERIENCE

Joe has a 17 year career in the information technology industry with numerous multi-million dollar successful production applications. One of Joe's largest involvements includes the development of a large scale auditing application that is used by 60,000 auditors throughout the world. This background combined with Joe's training in management and accounting allows him to truly understand the client's needs from both a business and technical perspective.

Joe has had an extensive career working with and migrating large systems. These skills along with his attention to detail enable him to quickly debug and adapt to the needs of any size project.

Joe also works on many open source projects and has performed training for large teams over the course of his career. His project diversity enables him to adapt to any role on the project.

#### CERTIFICATIONS AND OPEN SOURCE

XML MVP

Lead Developer Google Checkout .NET



#### PATRICIA HARGIS SENIOR BUSINESS ANALYST

#### PROJECT ROLE: LEAD BUSINESS AND QUALITY ANALYST

#### CORE STRENGTHS

- Subject matter expert in voter registration and election management systems, including South Carolina's new Voter Registration and Election Management System and its Electronic Voter Registration List application.
- Ability to translate defined requirements into conceptual screen designs detailing screen features, behaviors, and navigation.
- Focus on quality assurance by completing QA plans for custom application development projects, performing intensive rounds of system testing, and supporting clients during user acceptance testing.
- Knowledge of report development tools to design and create custom reports.
- Patricia has enjoyed a 13 year career with NWN Corporation as an analyst in a multitude of large-scale projects using project management and software development methodologies for customers ranging from state government to private sector manufacturing.

#### PROFESSIONAL EXPERIENCE

Patricia has had an 18 year career in the information technology industry and is an experienced IT Business Analyst who has contributed to the successful completion of large and small-scale projects beginning with requirements definition through customer support and training. Patricia's early technical background in application development coupled with her business experience makes her an expert in effectively defining customer needs and delivering solutions that enhance business processes and user experiences.

Patricia is a versatile team player who strives to deliver quality solutions for customers while performing a multitude of roles as required from business analyst defining requirements to design and quality assurance to training and implementation.

#### EDUCATION AND CERTIFICATION

BS, Business Management (Management Information Systems)



CHESLEY MARTIN PROJECT MANAGER

#### PROJECT ROLE: LEAD BUSINESS AND QUALITY ANALYST

#### CORE STRENGTHS

- Subject matter expert in voter registration and election management systems, including South Carolina's new Voter Registration and Election Management System.
- Management of multiple multimillion dollar custom development projects in the areas of Supplier Relationship Management, Health Insurance and Higher Education.
- Over 23 years of experience integrating systems with disparate technologies and platforms.
- Three years of experience leading the Product Management organization for a 200 person software company.
- Over five years of experience migrating multiple applications from legacy technologies to web-based applications including multiple IDMS-based applications for Clemson University.
- Introduced Agile development processes into two organizations and championed it through implementation.
- Over 23 years of experience working in high volume applications from mainframe-based university course registration systems to web-based procurement applications processing purchase orders at rate of 45 purchase orders a minute 365x24.

#### PROFESSIONAL EXPERIENCE

Ches's focus throughout his 23 year career has been customer satisfaction. Ches has balanced the objectives of internal constituents as well as external customers to deliver projects on time and within budget while maintaining a high degree of customer satisfaction.

Ches's 18 years as a software engineer in both mainframe technologies and object-oriented web technologies gives him unique perspectives to problems enabling him to define solutions for applications being migrated from one platform to another. Additionally, Ches's architectural experience leading and designing high volume applications adds to his unique qualification set.

## EDUCATION AND CERTIFICATION

BS, Computer Science



MICHELLE LEVEY PROJECT MANAGER

#### PROJECT ROLE: BUSINESS AND QUALITY ANALYST

#### CORE STRENGTHS

- 19 years of experience in Information Technology: programming, database administration, project management, business analysis, quality assurance; in particular, business analysis and quality assurance for South Carolina's new Voter Registration and Election Management System.
- 14 years of experience leading teams through the entire development lifecycle including opportunity identification, cost benefit analysis, project definition, and all stages of the project life cycle from project kickoff to implementation and on-going maintenance planning.
- Proven leadership skills and management expertise gained from managing large complex projects, managing entire units of development staff, leading successful teams and communicating with all levels of management.
- Managing application development in multiple industries including finance, insurance, and manufacturing.
- 6 years of experience leading and managing development and QA staff, DBAs and Project Managers for a Fortune 500 company.
- Developed and instituted project management practices for resource allocation, change management, issue management and implementation management for a Fortune 500 company.

#### PROFESSIONAL EXPERIENCE

Michelle's career focus has been Project Management and Effective Leadership of teams. Michelle has led and mentored junior project managers for 10 years; she has led highly successful teams for the last 14 years, and has worked with resources across the globe.

Michelle's experience in the IT area encompasses financial, insurance, and manufacturing systems in both the mainframe and web environments. Michelle's experiences as a business analyst, quality assurance analyst, developer, DBA, and project manager as well as the diverse types of environments in which she has worked, allow Michelle to pull from a wide range of experiences to offer creative solutions for clients and teams.

#### EDUCATION AND CERTIFICATION

BS, Computer Science, 1987 PMP and IBM Leadership Program Graduate, 2002 IBM Certified Senior Project Manager, 2004



ALAN HARDY PROJECT MANAGER

#### PROJECT ROLE: BUSINESS AND QUALITY ANALYST

#### CORE STRENGTHS

- Subject matter expertise in eligibility determination systems and voter registration systems, including South Carolina's new Voter Registration and Election Management System.
- Management of multimillion-dollar mission critical enterprise custom software application and infrastructure management implementation projects on time and under budget, utilizing a variety of project management and life cycle development methodologies.
- Implementation of project management and software development life cycle methodologies leading to consistent delivery of quality solutions.
- Successfully mentored project teams in agile development methods.
- Aptitude for anticipating and managing crisis, trouble-shooting, and problem-solving.
- Alan has worked with NWN Corporation since 2010 with a high performance established team on designing and implementing custom technology solutions using project management and software development methodologies and best practices leading to consistent delivery of quality solutions for customers.

#### PROFESSIONAL EXPERIENCE

Alan has enjoyed a 10-year career as an IT and Project Management professional with specific experience in Enterprise Management, Eligibility Determination, Global Inventory and Test Management, Claims Adjudication, and Process Re-engineering systems. Over this period, Alan has acted as Project Manager for multiple SC state agency enterprise application projects. Alan has experience in interfacing with Federal agencies.

Alan is a strong leader and team player whose varied technical and professional background makes him uniquely qualified to deliver effective solutions, adding value, and providing exceptional service and quality for the customers.

#### EDUCATION AND CERTIFICATION

BA, Management Information Systems

Certified Project Management Professional by the Project Management Institute (PMP)

The Program & Portfolio Management Certification (PPMC)



#### RAM GARIPALLI LEAD DATABASE ARCHITECT

#### PROJECT ROLE: LEAD DATABASE ARCHITECT

#### CORE STRENGTHS

- Over 14 years of experience developing business software solutions in various fields such as government, financial, insurance, construction, manufacturing, and in particular, South Carolina's new Voter Registration and Election Management System.
- Extensive knowledge of designing large databases for optimal query performance, report performance.
- Highly experienced in designing transactional databases, implementing database mirroring, clustering, replication for load balancing and high availability.
- Vast experience in extracting, cleaning, and loading data from different types of sources (DB2, Access, text files) to Oracle and SQL server databases.
- Deep knowledge of NWN Corporation's /SOLUTION code framework.
- Strong knowledge of software architecture and design principles.
- Ability to work closely with customers to develop systems that meet requirements and solve problems within the scope of a project.
- Excellent analytical problem solving skills. Very skillful in identifying and solving very difficult problems efficiently.

#### PROFESSIONAL EXPERIENCE

Ram has had a 14 year career in the information technology industry with numerous successfully completed projects. Majority of project work has been designing and developing databases for client server or web-based transactional applications. Developed strategies for data cleansing before loading into SQL Server for several SC State agencies.

Ram has also been involved in every stage of a project from requirement gathering to training the end users and always ensures that services provided to clients are focused on their needs.

#### EDUCATION AND CERTIFICATION

Bachelor of Engineering, India Master of Engineering, Lamar University, Texas Microsoft SQL Server 2000 Certified Professional Oracle 7.3, 8.0, and 8i Certified Database Administrator Certified PowerBuilder Developer (CPD)



#### AMANDA POSEY SENIOR APPLICATION CONSULTANT

#### PROJECT ROLE: DEVELOPMENT TEAM LEAD

#### CORE STRENGTHS

- Over 9 years of experience developing web based business software solutions for various South Carolina state government agencies, and in particular, South Carolina's new Voter Registration and Election Management System.
- Deep knowledge of NWN Corporation's *i*SOLUTION code framework.
- Strong knowledge of software architecture and design principles.
- Extensive knowledge and experience with design and development technologies such as VB/COM, HTML, SQL, C#, ASP.Net, ASP, JavaScript, Flash, XML/XSL/XSLT, PowerBuilder, SQL Server, Oracle, MS Access.
- Ability to adapt quickly and learn new technologies.
- Ability to work closely with customers to develop systems that meet requirements and provide a solution to their business needs.

#### PROFESSIONAL EXPERIENCE

Amanda has had an 11 year career in the information technology industry with numerous successfully completed projects. Majority of project work has been with large web-based line of business applications, while also completing several smaller scale applications for various government and non-government clients.

Amanda is a versatile team player who strives to deliver quality solutions for customers while performing a multitude of roles as required from business analyst defining requirements, to lead technical architect through design and development.

#### EDUCATION AND CERTIFICATION

BS, Psychology, Furman University

Certificates in Advanced Information Technology, Rushing Center for Advanced Technology at Furman University

Microsoft Certified Professional, Developing and Implementing Web Applications with Microsoft® Visual C#™.NET and Microsoft® Visual Studio®.NET



#### LYUDMIL IVANOV SENIOR APPLICATION CONSULTANT

#### PROJECT ROLE: DEVELOPMENT TEAM LEAD

#### CORE STRENGTHS

- Over 17 years of experience developing business software solutions in various fields such as government, banking, ecommerce, insurance and sales.
- Excellent knowledge of voter registration and election management system gained while serving as development team lead for South Carolina's new Voter Registration and Election Management System.
- Over 7 years of experience developing large scale projects for state government agencies such as South Carolina Department of Probation, Parole and Pardon Services and the South Carolina Department of Revenue.
- Extensive knowledge of NWN Corporation's /SOLUTION code framework.
- Strong knowledge of software architecture and design principles.
- Extensive knowledge and experience with design and development technologies such as UML, C#, ASP.Net, SQL, JavaScript, HTML, XML.
- Ability to work closely with customers to develop systems that meet requirements and provide a solution to their business needs.

#### PROFESSIONAL EXPERIENCE

Lyudmil has had a 17 year career in the software development industry with numerous successfully completed projects. Majority of project work has been custom software development specializing in the design and development of large scale browser based applications. This background combined with Lyudmil's training in computer science and economics allows him to deliver projects on time and within budget while maintaining a high degree of customer satisfaction.

Lyudmil is highly adaptable in quickly changing technical environments with very strong organizational and analytical skills. He is a team player who is comfortable performing the roles required of a team lead and senior application developer/analyst in order to deliver quality solutions for customers.

#### EDUCATION AND CERTIFICATION

MS, Computer Science, University of World Economy, Sofia Bulgaria. Minor: Economics Microsoft Certified Professional



#### SCOTT BURKE SENIOR APPLICATION CONSULTANT

#### PROJECT ROLE: DEVELOPER/ANALYST

#### CORE STRENGTHS

- Over 16 years of experience developing business software solutions for organizations in diverse industries, including manufacturing, software, financial, nonprofit, and government, in particular, South Carolina's new Voter Registration and Election Management System.
- Strong knowledge of NWN Corporation's /SOLUTION code framework.
- Extensive knowledge and experience with design and development technologies such as Microsoft .NET, C#, ASP.Net, SQL, JavaScript, HTML, XML.
- Ability to work closely with customers to develop systems that meet requirements and provide a solution to their business needs.

#### PROFESSIONAL EXPERIENCE

Scott has a proven track record of successful software projects over the span of his 16 year career in the information technology industry, the majority of which has been spent using Microsoft technologies to develop client server and web-based line of business applications. This background, combined with Scott's training and experience in finance and accounting allows him to truly understand the client's needs from both a business and technical perspective.

Scott is a team player who enjoys using his problem-solving abilities and strong technical skills to create exceptional, high-quality solutions for his customers.

#### EDUCATION AND CERTIFICATION

BS, Accounting

Microsoft Certified Application Developer for .NET (MCAD.NET, C# track)





#### CORINNA HYMAN SENIOR APPLICATION CONSULTANT

#### PROJECT ROLE: DEVELOPER/ANALYST

#### CORE STRENGTHS

- Over 15 years of experience developing business software solutions for various industries including financial, sales, manufacturing, nonprofit, and government, in particular, South Carolina's new Voter Registration and Election Management System.
- Experience in development of large projects including an Embassy Foreign Visit System and Commodity Control License and Munitions System for the Office Under the Secretary of Defense for Policy (OUSDP).
- Extensive knowledge and experience with C#, VB.Net, ASP.Net, SQL, JavaScript, HTML and XML development technologies.
- Comprehensive knowledge and experience with designing and development of reports using SQL Server Reporting Services (SSRS) 2005 and 2007; Crystal Reports for .Net, 8.0, 8.5, 9.0, 10, 11 and 2008.
- Ability to work closely with customers to develop systems that meet requirements and provide solutions for their business needs.

#### PROFESSIONAL EXPERIENCE

Corinna's 15 year career in the information technology industry has produced numerous successful projects. Her project work ranges from large client server and web-based line of business applications to small-scale office applications. Corinna's technical background in application and database development along with her previous business experience in defining customer needs in both government and private industries shows that she is a valuable team player who is comfortable performing the many roles required to develop and deliver quality solutions for customers.

#### EDUCATION AND CERTIFICATION

BS in Mathematics and Computer Science, Francis Marion University

MS Great Plains Core Financials Implementation and Customization Certification

MS CRM Implementation And Customization Certification





JYOTHI GARIPALLI		
APPLICATION CONSULTANT		

#### PROJECT ROLE: DEVELOPER/ANALYST

#### CORE STRENGTHS

- Knowledgeable DBA. Experienced in designing/creating SQL Server databases for development, test, and production, including setup of SQL Agent jobs for backup and database maintenance. Over 7 years of experience in creating all types of database objects for data access, batch jobs, enforcing business rules, auditing, performance tuning the SQL Procedures. Thorough knowledge of Extract, Transform, Load (ETL) process using Microsoft SQL Server Integration Services.
- Extensive knowledge and experience with SQL Server (2000, 2005, 2008), ORACLE (7.3, 8.0, 8i), Sybase 12.0, and with database tools, software tools, graphical user interface tools, and web development tools.
- Experienced in working with business users to specify reports, followed by report creation/deployment using multiple tools like SQL Server Reporting Services and Crystal Reports.
- Multiple projects with the State Department of Insurance, including easy-to-use licensing for private insurance agents and companies, monitoring and enforcement of complex regulations, and database import/export/migration.
- Manufacturing applications for large manufacturing companies. Applications include resource administration, order administration, inventory, packing slips, invoicing, purchasing, finance, general ledger.

#### PROFESSIONAL EXPERIENCE

Jyothi is organized, dedicated, and quick to become productive. Her solid DBA and developer/analyst skills are enhanced by her experience in working with end users to understand and define their business requirements for new applications, customization, and reporting. Her application experience spans both public and private sectors. As a result, her broad-based professional capabilities make her a strong contributor to each project.

#### EDUCATION AND CERTIFICATION

Bachelor of Engineering, India Advanced Diploma in Computer Applications, India



#### STEPHEN WARD APPLICATION CONSULTANT

#### PROJECT ROLE: DEVELOPER/ANALYST

#### CORE STRENGTHS

- Over 4 years of experience developing software solutions in various fields such as finance, order processing, development tools, and education. Current experience as a developer/analyst for South Carolina's new Voter Registration and Election Management System.
- Strong knowledge of software architecture and design principles.
- Knowledge and experience with design and development technologies such as C#/C++, SQL, JavaScript, HTML, XML, WPF, and ASP.NET.
- Ability to work closely with customers to provide a solution that meets their technical and business needs.
- Ability to work closely with customers to develop systems that meet requirements and provide solutions for their business needs.

#### PROFESSIONAL EXPERIENCE

Stephen has had a 4 year professional career in the information technology industry working on projects in multiple fields. He has worked at all levels of the product development lifecycle. This broad experience gives him a wide perspective from which to solve client needs.

Stephen's background in the product development and education fields after being an independent developer has equipped him to approach problems and solutions from a unique perspective. In addition, his experience at all levels of product development allows him to apply holistic solutions that best fit technical and business requirements.

#### EDUCATION AND CERTIFICATION

BS, Computer Science, Bob Jones University

MCTS, .NET Framework 4 Data Access



#### MARY DE MONTEREY PROJECT MANAGER

#### PROJECT ROLE: PMO CONTROLLER AND ANALYST

#### CORE STRENGTHS

- Extensive experience with the SC State Election Commission:
  - Created User Guides for South Carolina's new Voter Registration and Election Management System to enable county users to become productive quickly with their new system.
  - Analysis/documentation of Absentee Voting process for absentee and UOCAVA voters.
  - Project management and analysis for the Help America Vote Act (HAVA) State Plan. The HAVA State Plan established a framework for achieving compliance with the federal mandates, drew on combined efforts of state and county organizations in the State, and reflected strategic objectives of great importance to every voter in the state.
  - Client-side project management, business process, and systems analysis consultation to assist State Election Commission's evaluation of a Voter Registration System prototype. Developed User Acceptance Testing approach and defined test cases for the first component.
  - Project management for state primary election. Supported state team and communicated with county teams. Established tracking methodology to keep executive team informed. Election completed smoothly.
- Accomplished Business Analyst with broad industry background and excellent communication skills. Extensive experience in feasibility studies leading to major projects for custom software development. Works closely with client to build a clear understanding of business environment and challenges, envision solution options and benefits, and communicate recommendations to executives.
- Successful Project Manager in the information technology industry. Certified Project Management professional by the Project Management Institute.

#### PROFESSIONAL EXPERIENCE

Mary has worked with the NWN Application Development Center of Excellence core team since 1997 as a Program Manager, Project Manager, and Business Analyst. Her career includes almost 30 years with IBM, during which her leadership ability was recognized by multiple IBM Regional Manager and Pacesetter awards.

#### EDUCATION AND CERTIFICATION

BA, Double Major in Mathematics and English, Furman University

Certified Project Management Professional by the Project Management Institute (PMP)



#### **IV. Budget Proposal**

The investment of the cost of this project will be proven, over time, as a voting accessibility increase rather than a monetary return on investment (ROI). It is impossible to attach a monetary value to the ability of a voter to have his/her vote counted. During the 2008 Presidential General Election, 3469 ballots from UOCAVA voters were not returned prior to the deadline. The EVAT tool would have provided a means for those ballots to travel to the LEO quickly and be received by the deadline. Also, an estimated 68,000 UOCAVA voters did not participate in the 2008 General Election and this tool will provide them with a guarantee that their ballot is returned on time.

With implementation of this tool, and the connectivity it provides, it is expected that the following efficiencies will be realized:

	Current	Expected	Increase
New registered voters (year)	2,500	5,000	2,500
Informational inquiries	0	40,000	40,000
Absentee ballot applications issued	12,137	50,000	37,863
Ballot transmissions	2,000	50,000	48,000
Ballot markings	0	50,000	50,000
Ballots returned	8,668	50,000	41,332

The cost of this project will be \$3,102,318.61. SCSEC and NWN Corporation consultants will be managing the development of the software and implementation of hardware. Below is an itemized budget for the project.

#### Travel \$ 9,600

Project meetings and reviews as required by Part II, Section Vii, B Project Meetings and Reviews of the grant application, will be held in Washington, DC. We estimate that two people will travel once per quarter from Columbia, SC to Washington, DC for approximately two days at an estimated cost of \$1,200.00 per person per trip.

#### Consultants \$ 2,725,000

A project of this scope and complexity requires multiple skills and disciplines. NWN Corporation will provide senior resources as needed on a just-in-time basis at a standard rate of \$125 per hour for an estimated 20,000 hours.

-Project Managers	-Developer/Analysts
-Business Analysts	-Quality Analysts
-Application Architects	-Database Architects

The SCSEC will utilize current personnel and augment staff as needed with qualified consultants from a staffing agency on State contract at a rate of \$75 per hour for an estimated \$3,000.00.



# SOUTH CAROLINA

#### **Materials and Supplies** \$367,719 (Includes five year recurring costs)

Each of the 46 county offices will need one document scanner to capture applications sent via fax and mail. These scanners will be purchased from a vendor with an approved State contract price of \$485 each for a total of \$21,825.

The following computer equipment will be installed at DSIT to house the EVAT software. DSIT will monitor and maintain this equipment 24 hours per day and ensure that users have access to the EVAT program at any time. All equipment will be purchased from vendors with an approved State contract.

#### Initial Purchase:

1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 146GB	\$ 30,000.00
Hard Drives, 2 HBA's	1 474 01
<ul> <li>1 – Windows Server 2008 Enterprise Software</li> <li>4 – Microsoft SQL Server 2008 R2 Enterprise Software</li> </ul>	1,676.01 78,181.00
Total	\$109,857.01
1 Otal	\$107,057.01
DSIT Charges for 1 <sup>st</sup> Year:	
4 – DSIT Server Management	\$ 11,568.00
2 – DSIT Network Connections	384.00
I – DSIT Netscaler	2,148.00
2 – DSIT Rack Space	768.00
2 – DSIT Virtual Machines	8,640.00
Total	\$ 23,508.00
Yearly Recurring:	
<u>Yearly Recurring:</u> 1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 4 146GB	
	<b>\$</b> 1,250.00
1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 4 146GB	\$    1,250.00 17,375.00
1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 4 146GB Hard Drives, 2 HBA's	,
1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 4 146GB Hard Drives, 2 HBA's 1 – Windows Server 2008 Enterprise Server	17,375.00
<ol> <li>1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 4 146GB Hard Drives, 2 HBA's</li> <li>1 – Windows Server 2008 Enterprise Server</li> <li>4– Microsoft SQL Server 2008 R2 Enterprise Software</li> </ol>	17,375.00 372.72
<ol> <li>1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 4 146GB Hard Drives, 2 HBA's</li> <li>1 – Windows Server 2008 Enterprise Server</li> <li>4 – Microsoft SQL Server 2008 R2 Enterprise Software</li> <li>4 – DSIT Server Management</li> </ol>	17,375.00 372.72 11,568.00
<ol> <li>1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 4 146GB Hard Drives, 2 HBA's</li> <li>1 – Windows Server 2008 Enterprise Server</li> <li>4 – Microsoft SQL Server 2008 R2 Enterprise Software</li> <li>4 – DSIT Server Management</li> <li>2 – DSIT Network Connections</li> </ol>	17,375.00 372.72 11,568.00 384.00
<ol> <li>1 – DL580 G7, 4 Processor, 8 Core, 256G Ram, 4 146GB Hard Drives, 2 HBA's</li> <li>1 – Windows Server 2008 Enterprise Server</li> <li>4 – Microsoft SQL Server 2008 R2 Enterprise Software</li> <li>4 – DSIT Server Management</li> <li>2 – DSIT Network Connections</li> <li>1 – DSIT Netscaler</li> </ol>	17,375.00 372.72 11,568.00 384.00 2,148.00



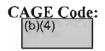
#### TECHNICAL PROPOSAL

## **Catalog of Federal Domestic Assistance Number:** 12.217

#### BAA number:

#### H98210-BAA-11-0001

#### Title of Proposal: Advanced Simplification In Military and Overseas Voting



DUNs Number: (b)(4)

#### Identity of applicant and contractors:

South Dakota Secretary of State's Office North Dakota Secretary of State's Office Nebraska Secretary of State's Office Iowa Secretary of State's Office BPro, Inc.

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#### Proposed period of performance:

August 1<sup>st</sup> 2011 – September 19<sup>th</sup> 2012

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#### I. <u>Technical Approach and Justification</u>

Iowa, Nebraska, North Dakota, and South Dakota (the States), are proposing collaboration between the States and BPro Inc. (BPro) to develop an application that will allow a Uniformed and Overseas Citizen Absentee Voter Act (UOCAVA) voter the opportunity to mark a secret ballot electronically and return the ballot, confident that the ballot will be counted. Although this grant proposal includes the development of functionality that will enable voters to return marked ballots electronically, that portion of the application will be developed for demonstration and security testing purposes. No grant funds will be used for transmitting of marked absentee ballots to be counted in an actual election. If the system that is developed is tested and deemed successful, implementation of the voted ballot return functionality during an actual election will be at the States' expense.

The utility, which will be called the Advanced Simplification In Military and Overseas Voting (ASIMOV), will first serve as a method for the voter to apply for an absentee ballot. The voter will first provide their state-specified unique identifiers (date of birth, driver's license, registered address, etc.). This data will search the States' voter registration system or centralized voter database to pre-populate the application if the voter has an existing voter record; if no voter record exists, the applicant will be able to manually fill in the required information. Depending on specific state requirements, a new or altered existing voter record will either be created by the system or the voter information will be sent to the appropriate election official for processing.

The ASIMOV system will then connect data from the States' voter registration system or centralized voter database (providing the voter's precinct information) with data from the election administration system (providing the voter's precinct specific ballot), to send the voter an e-mail with a hyperlink to their ballot. Clicking this link will open a page specific to the voter allowing the voter to choose to either to print the ballot and return it by mail or to electronically mark and submit the ballot through a step-by-step process on the secure state server.

Upon submittal of the ballot, the voter has the ability to track the status of their absentee ballot. The voter can determine the delivery status, acceptance, rejection, and any applicable rejection reason for the submitted ballot.

In addition to all statewide elections, UOCAVA voters will be able to use the utility for local elections not held in conjunction with the state. UOCAVA voters will be able to quickly access the utility through a web browser on a traditional desktop, laptop, or by downloading an application for the utility on a tablet (Apple iPad, Motorola Xoom) or smartphone (Apple iPhone, Motorola Droid). The States believe voters using this utility will have higher rates of successful return as the key openings for failure for UOCAVA voters resides with the lengthy amount of time it takes for ballots to be sent and received by mail. With this utility voters will have increased awareness of the options to have ballots sent to them electronically and, if they choose to use that option, also return their ballot electronically.

During the 2010 General Election, the States received 5,442 UOCAVA applications, and the States assert that the cost of less than a million to serve these and any future UOCAVA voters of the States is a small price. Additionally, while the States are the current members of this collaborative effort, once developed this utility can also be made available to any other states that can make the necessary data available. Development of this utility will be completed by BPro Inc., a South Dakota based information technology (IT) consulting company.

The ballot application component of the utility will be made available from the States' elections website. From the start of the application process, a UOCAVA voter and non-

UOCAVA voter will be treated as equals with a request for state specific identifying information (driver's license, for example). If the voter has an existing voter record, a pre-populated application will appear on the screen. The application will require the voter to answer a question determining UOCAVA eligibility. If the voter is not UOCAVA eligible, the user will be prompted to print their application and mail for appropriate submission. If the voter is UOCAVA eligible, the application may be submitted electronically. (The States intend to encourage electronic submission of the absentee ballot application since this is the factor that will provide one of the greatest impacts on reducing the amount of time to vote and submit their ballot.) If the UOCAVA voter provides an e-mail address, then their ballot will be accessed via e-mail.

For those voters providing an e-mail address on the ballot application, the ballot will be sent to the provided e-mail address. The message will include a hyperlink to access the ballot directly on the States' secure server. Each link will be unique to the voter and disabled after the ballot has been submitted. Upon clicking the received hyperlink, a page will open requiring the voter to provide a state specified unique identifier to log in and access the ballot.

The message and hyperlink will also include instructions for how to mark the ballot, how to submit the ballot, and a cut-out to be used on the envelope to ensure proper handling by the United States Postal Service (USPS), if the voter opts to return their ballot my mail. This means that there are two layers of security in the transmittal of the ballot to the voter. First, the ballot does not exist as an Adobe Portable Document File (PDF) in the voter's or election officials' e-mail in-boxes. Second, since the ballot never leaves the States' secure server, it is protected by the States' digital security systems.

For voters making full use of the utility by electronically marking their ballot, contests will be displayed one at a time. Contests will appear in correct order with candidates being displayed using correct rotation to make this process as similar as possible to those voting in person on Election Day. Likewise, the utility will allow the voter to vote for write-ins, if state law allows, and under-vote. The system will not allow over-votes.

The utility will also include a progress bar to let the voter know how far along the voting process they are. The voter's selections will be saved each time the voter advances to the next contest, which will allow voters with time constraints or poor internet connections to reconnect without having to start the process over again. A "bread crumb" trail will also be present to allow the voter to easily return to previous contests. After completing the last contest the voter will be shown a preview page of their marked ballot which will allow them to verify their selections and return to and modify their selection for any contest they wish.

When ready, the voter will be prompted to submit their ballot. When submitting the ballot, they will need to digitally sign an affidavit. The digital signature will include the voter's date of birth and state specified unique identifier to verify identity. The submitting process will use Crystal Reports to generate a PDF of their marked ballot and save it in a hosted secure file on the States' server. When submitted, a message will be sent to the respective local election official, notifying them that the ballot has been submitted. The official will then follow local procedures to access and create a hard copy of the submitted ballot and affidavit.

All ballots returned digitally will be assigned a system generated password protecting the ballot in a manner known only by the local election official, or their authorized staff. After the file is opened and the ballot and other required materials printed, the ballot will be sealed in an envelope and sent to the appropriate election board to be tabulated on Election Day.

This utility will also contain a reporting mechanism allowing counties and states to track their UOCAVA voters. When a county is accessing the utility, the report will only contain the information for their UOCAVA voters. Officials at the state will be able to access an aggregated list of all UOCAVA voters from all counties. The report will include, but not limited to, the following information: who requested a ballot, when it was requested, in which format the ballot was sent, when the ballot was sent, when the ballot was returned, and in which format the ballot was returned. Information learned from these reports will help the States to determine which methods of ballot transmission and return resulted in the highest rates of success. Future educational efforts for UOCAVA voters can then stress utilizing those specific methods.

Finally, the utility includes an application that will allow all voters to track the processing of their ballot. When accessed, the application will prompt the voter to provide some state specified unique identifier. The application will use this information to pull up a record of progress of that voter's voting process. It will indicate the date that a ballot was sent to the voter, regardless of which method the voter selected to receive the ballot. After the voter receives, marks, and returns their ballot, they can again use the application to learn when their local election official receives their returned ballot. As required under UOCAVA, a UOCAVA voter will be notified if their ballot is not accepted for tabulation and they will be given the reason as to why it was not accepted. This ballot tracking utility is available to all voters within the state, not just UOCAVA voters.

We expect that the utility, as described above, will lead to higher return rates in the jurisdictions utilizing it for the 2012 election cycle. It is anticipated that voters who make full use of the utility to mark and submit their ballot will have a 100% successful return rate and the privacy of their choices and security of their ballot will be maintained at the highest level. The States anticipate the successful return rate will decrease when voters choose to return the ballot by mail too close to the return deadline. However, since the ASIMOV system will reduce the amount of time it takes for a voter's request for a ballot to be fulfilled, a voter opting to return their ballot through the mail will have several extra days for the postal service to deliver the marked ballot to the appropriate local election official.

In addition to the UOCAVA voters of the States, it is possible that other jurisdictions would choose to adopt the tool after it is developed. The utility is driven by data supplied from a jurisdiction's election administration system and voter file to indicate which voters receive which ballot and then pass the balloting information on to the voter.

The milestones for this project include:

- January 1<sup>st</sup>, 2012: development of the utility completed
- February 29<sup>th</sup>, 2012: state testing of the utility completed
- 60 days before the Primary: training of local election officials to be complete
- 45 days before the Primary: implementation of the utility for testing
- Primary Election: returned ballots accessed and recreated
- July 31<sup>st</sup>, 2012: states meet with developer to discuss utilities performance
- August 31<sup>st</sup>, 2012: enhancements complete, if applicable
- September 7<sup>th</sup>, 2012: testing of enhancements to be complete, if applicable
- September 17<sup>th</sup>, 2012: additional training of local election officials to be complete
- September 22<sup>nd</sup>, 2012: 45<sup>th</sup> day before the General Election
- November 6<sup>th</sup>, 2012: General Election

• December 31<sup>st</sup>, 2012: final performance evaluation of the utility

From the time work begins on the utility until the project is to be completed by January 1<sup>st</sup>, 2012, the States and BPro will conduct monthly status calls to report on the status of the project. Documentation on work done will be provided by BPro and, as development on the ASIMOV system progresses, demonstrations of the utility are to be offered. This will allow the States to ensure that the utility is being developed to required specifications. By January 1<sup>st</sup>, 2012, the utility will be completed and BPro will have worked with the States' respective IT departments to place the utility on servers within the States' system.

The States will test all aspects of the utility, including, but not limited to the following: the application process, the ballot delivery process, the ballot marking utility, return of the ballot digitally and in hard copy form, storage and access of marked ballots on the state's servers, and use of the ballot taking application. Should any problems be discovered, the States will present BPro with a full written report detailing the issues by February 29<sup>th</sup>, 2012 with fixes being completed with all due haste. If no problems with the utility are discovered during testing, then the States will provide BPro with written acceptance of the utility.

Each individual state has its own existing procedures for training election officials. The States will incorporate training on this utility into those existing procedures. Documentation of when the training was completed and who was in attendance will be taken on a state-by-state basis. These trainings are to be completed by the 60<sup>th</sup> day before the Primary.

The utility will be programmed, as part of the ballot tracking application, to record when applications are received and when ballots are transmitted to the voter. By the 45<sup>th</sup> day before the Primary all records of applications received by the 45<sup>th</sup> day will also have a ballot transmittal date of no later than the 45<sup>th</sup> day. The utility will be able to create reports, both on the county level and the statewide aggregate, to display that the 45 day milestone was met.

The milestone of the Primary itself for the States is May 15<sup>th</sup> in Nebraska, June 5<sup>th</sup> in Iowa and South Dakota, and June 12<sup>th</sup> in North Dakota. No later than this milestone, all ballots and affidavits returned digitally will be successfully accessed and recreated.

By July 31<sup>st</sup>, the States and BPro will again meet to review the performance of the utility during The States' Primaries. If the utility worked as desired The States will provide BPro with documentation indicating complete acceptance of the utility. Should enhancements be needed or desired The States will present BPro with a full written report detailing the requested enhancements. Any requests are to be completed by BPro by August 31<sup>st</sup>, 2012 and testing by the States is to be concluded by September 7<sup>th</sup>, 2012, with the States again providing documentation to BPro to indicate acceptance of the utility.

If additional training of the local election officials is to be conducted, it is to be completed by September 17<sup>th</sup>, 2012, with similar documentation as that of the pre-Primary trainings gathered. The 45<sup>th</sup> day before the General Election closely follows on September 22<sup>nd</sup>, 2012. As with the Primaries, the utility will create records to show that all records of applications received by the 45<sup>th</sup> day will also have a ballot transmittal date of no later than the 45<sup>th</sup> day. On Election Day, documentation will again be generated to show that all electronically marked ballots stored on the state's servers were accessed to be recreated and tabulated.

The final milestone of this project will take place no later than December 31<sup>st</sup>. A final meeting will take place between The States and BPro for a wrap up discussion on how the utility performed functionally as well as changes in the successful return rates of UOCAVA voters who made use of the utility. During this meeting a final report on the success of the utility will be created for The States.

#### II. <u>Reports</u>

The States and BPro will produce a number of reports during the period of this grant. BPro will produce programmatic and data collection points reports, along with a project timeframe report to submit to the States. The States will submit annual financial progress and performance reports to the Federal Voting Assistance Program (FVAP) and/or the Defense Human Resources Activity (DHRA). The States will also submit, if needed, quarterly reports to all of the respected government agencies. Finally, the States and BPro will submit a final report by January 1<sup>st</sup>, 2013 describing the overall process of the project.

Programmatic reports will be submitted by BPro to the States monthly detailing the development process. This report will include, but not limited to: project plan timeline, step-by-step development process narrative, overall project plan, and project completion percentage. BPro has supplied the States with a project timeline and it is attached to the grant proposal (ASIMOV timeline).

Financial progress reports will be submitted by the States to the federal government and will be submitted using the Standard Form (SF) 425. Performance reports will also be submitted by the States to the federal government and will include an overall summary of the project completion percentage, development phase, and to-date results. The reports that will be submitted to the federal government by the States will be completed by the project director.

#### III. Management Approach

The States will work with BPro to develop the Advanced Simplification In Military and Overseas Voting (ASIMOV) system.

BPro is an information technology (IT) and web services company based out of Pierre, South Dakota. BPro is a well-established consulting company originating in the Midwest and has provided professional consulting services since 1985.

BPro has contracted with the South Dakota Secretary of State to create a number of projects in the past. Most notably is the Central Election Reporting System (CERS) that was created in 2008 for South Dakota and then tailored to a number of other states for the 2010 election cycle. BPro has also been awarded the contract to develop South Dakota's new statewide voter registration system (TotalVote).

The experience that the States have with BPro will be exceedingly beneficial with the development of a solution for UOCAVA voters. The barriers that UOCAVA voters face are significant compared the stateside voter. The States' solution, with the help of BPro, will not only impact a significant number of UOCAVA voters, but will be sustainable. The process that the States propose is to create the ability for the UOCAVA voter apply for an absentee ballot, mark the absentee ballot and return the absentee ballot to the local county official in a single browser session. The solution is smart, simple, and streamlined. The browser session can be completed on any computer with access to the internet, or on an application that will be developed for a tablet (Apple iPad, Motorola Xoom, Samsung Galaxy, etc.) and a smartphone (Apple iPhone, Motorola Droid).

Each UOCAVA voter will start in a single website, which will direct the voter to the applicable state section as governed by individual state law. The voter will log in to the Advanced Simplification In Military and Overseas Voting (ASIMOV) system and enter their registered address to apply for an absentee ballot. The system will verify the address through the States' voter registration system. Once the address is confirmed, the system will check their residential address to define precinct data via the States' election administration system, and determine which ballot the UOCAVA voter should receive. The voter will then be able to mark their ballot onscreen, contest by contest, review their ballot and send it back electronically to local county official. ASIMOV will allow a UOCAVA voter to vote in any election, from the national level to their local races.

The States' main strategic goal is to improve the overall absentee voting experience, accessibility, and percentage of ballot return for the UOCAVA voter. To accomplish this goal, the solution must be technologically innovative and user-friendly, yet secure. First, the States must first identify the challenges that all UOCAVA voters face. Secondly, the States must recognize the direction in which individual state law is progressing towards in usability, functionality, and accessibility that pertain to elections. Lastly, the States must implement a solution that is sustainable, cost-effective, and scalable.

The first challenge is to identify the barriers that UOCAVA voters face. The most recognized barrier is the time-in-transit when sending the ballot by U.S. mail from the voter to the local election official. According to the 2010 Local Election Official Survey conducted by the Overseas Vote Foundation (OVF), about twenty percent of UOCAVA voters received their ballots after the middle of October, which is much better than in 2008, when 39 percent received their ballots late. This delay of time-in-transit has many states opting to use a form of electronic transmission to send and receive absentee ballots. According to the U.S. Election Assistance

Commission's (EAC) 2008 Election Administration and Voting Survey, nearly 1 million ballots were transmitted to UOCAVA-covered voters for the 2008 election and of the ballots transmitted, 69 percent (682,341) were returned and submitted for counting. This is a vast improvement upon the survey conducted in 2006. With the progression of states moving towards electronic absentee ballot applications and electronic transmission of blank ballots to the UOCAVA voter and the presence of other barriers UOCAVA voters face, the Military and Overseas Voter Empowerment (MOVE) Act was signed into law on October 28, 2009. The MOVE Act established a presence in elections that overseas voters never had before and removed barriers that once plagued the voting experience for the UOCAVA voter. The States' proposal for developing a streamlined online ballot marking tool for UOCAVA absentee voters will meet MOVE Act requirements.

The States will need to detect the direction in which other individual state law is progressing towards, along with federal mandates, to develop a system that will be sustainable and significant. With the help of the MOVE Act, a number of states have already created or purchased a Commercial Off The Shelf (COTS) program to deliver an absentee ballot electronically. All 50 states provided for the electronic transmission of blank ballots to voters, mainly via e-mail or online download. Use of electronic transmission was up from 20 states in 2008 and demonstrates a direct response to the MOVE Act mandate according to the 2010 Local Election Official Survey conducted by the OVF. To accomplish this task, each state needed to pass state legislation to allow the implementation of the MOVE Act and the federal mandates that went with it.

The States also need to implement a solution that will not only be beneficial to each individual state, but with more and more budget cuts, a solution that is cost-effective and sustainable in the long run. To do this, the States must look at current processes.

South Dakota is comprised of 66 counties and 64 county auditors who serve as the local election official for the county. The Secretary of State's Office oversees the election process in the State of South Dakota and provides assistance to the local county officials. The Secretary of State serves as the Chief Election Official and makes sure all aspects of election law are adhered to. South Dakota fully implemented their MOVE Act compliant system (ST23) in 2010 for the 2010 general election. ST23 provides an electronic means for transmitting the absentee ballot application and blank ballot to the UOCAVA voter by utilizing CERS for voter identification and ballot creation, and utilizing the Electronic Voter Registration System County Transport System (ST20) for transport of the absentee voter information to the State. For UOCAVA voters who request to receive their ballot electronically, ST23 provides e-mail access to the Military and Overseas Citizens Web Portal, where the official UOCAVA ballot, specific to the voter, can be obtained. This ballot covers all federal races, as well as all state, county, local, and specific district races down to the precinct level, along with ballot questions. Included with the official ballot are the instructions and mailing template for return of the ballot to the local election official. South Dakota law requires the marked ballot to be sent by U.S. mail only to the local election official. The States proposal will require legislation to allow the electronic return of the marked ballot in South Dakota. The Voter Information Portal (VIP) is another aspect of CERS utilized to fulfill the requirements of the MOVE Act. VIP allows registered voters in South Dakota the ability to log into a secured website to access voter registration information to include the polling place and location, legislative district number, county election information and contact data for their county auditor. In addition, the voter can view the sample ballot specific to them for a federal election. In 2011, legislation was passed to allow a UOCAVA-covered voter

the ability to vote in any election. The use of the portal has been expanded to include absentee ballot tracking information. Going beyond the requirements of the MOVE Act, all absentee voters can access VIP to view the date their absentee ballot application was received, the date their absentee ballot was sent out either by mail or electronically, and the date their absentee ballot was received by their county auditor.

South Dakota sent out 374 ballots to UOCAVA voters for the 2010 General Election. Of those, 291 (78%) were returned and counted in the 2010 General Election.

Iowa has 99 county auditors who serve as the county commissioners of elections and county registrars of voters. The Iowa Secretary of State is the state commissioner of elections and state registrar of voters. The county auditors administer elections at the local level and process voter registration and absentee ballot request forms. The Secretary of State's Office supervises the county auditors in the administration of Iowa's election laws and administrative rules.

In Iowa, UOCAVA voters do not have to be registered voters to request an absentee ballot. Registration deadlines, verification and ID requirements are waived for UOCAVA voters. If an unregistered UOCAVA voter requests an absentee ballot, the voter is registered using either the Federal Post Card Application (FPCA) or the affidavit on the affidavit envelope used to return the voted ballot. Voters eligible to return ballots electronically are required to submit one of these affidavits as well. The declaration of eligibility on a Federal Write-in Absentee Ballot (FWAB) can also be accepted as a registration form.

UOCAVA voters can request an absentee ballot in the following ways: completing an Iowa official absentee ballot request form and sending it to the county auditor, writing a letter to the county auditor which contains all of the necessary demographic voter information (i.e. name, date of birth, Iowa residence including street address, party affiliation, etc.), completing a FPCA, asking a family member to submit a proxy request to the county auditor (general elections only), and writing to the county auditor requesting a special state write-in ballot (general elections only). Special write-in ballots may be used by UOCAVA voters who are or will be outside the continental U.S. and cannot receive and return a regular absentee ballot by normal mail delivery during the usual absentee voting period. UOCAVA voters may request this type of ballot no earlier than 90 days before the election and no later than 45 days before the election.

Reflecting the changes made by the MOVE Act, in Iowa, UOCAVA voters may use a FPCA to request ballots for all elections to be held during a calendar year. If the voter does not specify which elections the voter wants ballots for, the county auditor will send ballots for federal elections only. UOCAVA voters may submit absentee ballot requests by mail, fax, e-mail, or personal delivery. UOCAVA voters who submit absentee ballot requests by fax or e-mail do not need to follow up by sending their original signed requests. UOCAVA voters may receive absentee ballots by mail, fax, or e-mail. If the voter does not indicate the method by which they prefer to receive the ballot, the ballot will be mailed. If a UOCAVA voter would like to receive a ballot by mail, they must submit their request to the county auditor by 5 p.m. (Central Standard Time) on the Friday before the election. Requests for electronic ballots must be received by the county auditor by the close of business on the day before the election.

For federal elections, ballots must be ready to send to UOCAVA voters at least 45 days before the election. For all other elections, ballots are sent as soon as they are ready. For all UOCAVA voters, county auditors must send the voter a blank ballot, voting instructions, a secrecy envelope, affidavit envelope, and return envelope. Currently, the county auditor may choose two different methods for sending ballots electronically to UOCAVA voters. Ballots can be e-mailed or faxed directly to the voter's e-mail or fax number, or ballots may be sent using the Federal Voting Assistance Program's ETS transmission program. Each county auditor may decide which method the county will use. The majority of the counties in Iowa e-mail or fax ballots directly to voters. If a county auditor has a UOCAVA ballot returned to their office as undeliverable, the auditor confirms the ballot was sent to the correct mailing address, e-mail address, or fax number. After doing so, the county auditor contacts the voter immediately by e-mail or by sending a forwardable notice to the voter's registration address and absentee ballot mailing address. The notice informs the voter that the voter's ballot was returned undeliverable and a new absentee ballot application with a correct mailing address, e-mail address, or fax number is required if the voter wishes to continue to receive absentee ballots. The county auditor will also stop sending ballots to the voter until a new absentee ballot application is received from that voter.

Most UOCAVA voters must return their ballots by mail. Ballots returned by mail must be postmarked before Election Day. For primary and general elections the ballots must be received by the county auditor by noon on the Monday following the election. (If postmarked on Election Day, the ballot must be received in the county auditor's office by the time the polls close on Election Day.) UOCAVA voters located in areas designated as "imminent danger pay areas" by the U.S. Department of Defense may choose to return their ballot by fax or e-mail. Voters who choose to return their voted ballots electronically must sign an acknowledgment swearing they are located in an imminent danger pay area and sign a waiver giving up their right to a secret ballot. Ballots returned electronically must be received in the county auditor's office before the polls close on Election Day (CST). Any ballots received late cannot be counted.

Iowa's county auditors sent 3,004 absentee ballots to UOCAVA voters for the November 2010 general election. Of those, 1,446 (48%) ballots were returned and submitted for counting, and 1,214 (84%) were counted. An additional 173 federal write-in absentee ballots and five special write-in ballots were counted. A total of 54 UOCAVA absentee ballots were rejected and not counted. Almost half of the ballots were rejected due to a problem with the voter's affidavit (10 ballots lacking voters signature, 10 ballots missing the affidavit completely or affidavit envelope was open). Another 11 ballots were rejected because they were not received on time. Five ballots were rejected because the voter's registration status was inactive, and another five ballots were rejected because the voter cast a ballot at the polls. Two ballots were rejected for unknown reasons.

Even though UOCAVA voters are permitted to submit absentee ballot requests through email and fax, they still need to print and sign a copy of the request, then scan it or fax it. County auditors need to receive a digital copy of the voter's signature on the form if the voter is submitting the request electronically. Currently, Iowa law does not allow for the acceptance of digital signatures; however, with the adoption of the States' proposal, the Iowa Secretary of State's Office intends to either sponsor legislation or amend its administrative rules to permit the acceptance of digital signatures on voting materials for UOCAVA voters.

A second challenge relates to voter confusion on how to properly return ballots. For voters who receive their ballot by mail, the process of voting and returning their ballot is fairly simple. The instructions provided direct the voter to mark the ballot and how to enclose the ballot in the provided envelopes. On the other hand, the process of returning a ballot may be complicated for voters who receive their ballot electronically. They are provided instructions for voting but also receive two separate instructions. One set of instructions is for voters who must return their ballot by mail and the other set is for voters who may return their ballot electronically. Additionally, if they are returning the ballot by mail, voters must print the "envelope" forms on envelopes or paper which they attach to envelopes. Voters returning their ballots electronically need to fill out additional forms acknowledging they are eligible to do so and waiving their right to a secret ballot. The different sets of instructions may lead to confusion for the voters as they have to sort through the forms to figure out how to return their ballot. The State's proposal that leads the voter through the process will reduce the number of incomplete/deficient affidavits and rejected ballots because voters will be required to properly complete one step before being allowed to move onto the next.

Finally, UOCAVA voters are mobile. It is difficult for county auditors to ensure they have the most recent contact information for the voter. The MOVE Act has already reduced the number of ballots returned as undeliverable as now voters must submit new FPCAs more often. However, UOCAVA voters may still move throughout the calendar year. Returned ballot rates are likely to improve because a mobile UOCAVA voter is likely to retain the same e-mail address when their physical location is in flux.

Nebraska has 93 counties, where in 85 counties, the county clerk is the election official, and eight have election commissioners. The county clerks and election commissioners are tasked with all aspects of the election process at the county level, including but not limited to: registering voters, candidate filing, list maintenance, ballot production, and vote tabulation. The Nebraska Secretary of State's Office provides assistance to the county officials, and ensures that all aspects of election law are followed. Further, the Secretary of State's Office owns the vote tabulation equipment, the voter registration system, and holds the maintenance contract for the tabulation equipment and the voter registration system.

A Nebraska UOCAVA voter has the flexibility to register to vote and request a ballot using the same form. He or she may do so using any one of several methods: a standard absentee application, a FPCA, or another form of written request. The voter can send the application either by mail or electronically. If sent electronically, the voter must mail the signed original to the county office. When the application arrives in the county election office, the information is entered into the voter registration system. If the voter has not previously registered, all of the necessary registration data is entered in to the system (name, date of birth, address, driver's license number or last four digits of the social security number, date of registration, source of registration, etc.).

Once the registration information is entered, or if the applicant is already a registered voter, the voter's record is opened, and all of the necessary ballot information is recorded: Mailing address, absentee voter data, time the application was received, the status of the application, and time the ballot was sent. The county official will send out the ballots to all UOCAVA voters at the 45 day time frame. If the printed ballots are not available, then the official will send the final ballot proof to the voter. The proof can be printed out and mailed or faxed to the voter, or, if the official has a valid e-mail address, e-mailed as an attachment. After the passage of the MOVE Act, the Secretary of State's Office instructed the counties, if they had an e-mail address from a UOCAVA voter, to send the ballot and ballot materials by e-mail. Included in the package of materials sent to the voter were instructions on mailing the ballot back, faxing the ballot back, or e-mailing the ballot back.

Nebraska law allows some flexibility for UOCAVA voters when returning their ballot. Prior to the MOVE Act, Nebraska did not require a witness, and has continually allowed for electronic return of the ballot, either by e-mail or fax. In those instances, if the voter communicates their intent to return a voted ballot electronically, the county office must inform the Secretary of State's Office. Additionally, the voter is required to sign an oath stating that they understand the ballot is not a secret ballot, and verifying that all of the information they have provided is correct. (For ease of use, these two statements have been combined in to one oath). Finally, the voter can now access their ballot status on a web page provided by the Secretary of State's Office. Once the ballot is returned, the official verifies that all applicable forms are included with the materials and the information returned matches the application information. If the ballot was sent electronically, the county resolution board will reproduce the ballot choices on standard ballot stock.

Even with several obstacles removed, UOCAVA voters still face challenges. With respect to the 2010 General election, there were 1,142,247 eligible voters in Nebraska. Of those voters, 497,248 (43,5%) voted. Breaking those numbers down further, UOCAVA voters were sent 1,798 ballots. Of those, 645 ballots were returned (35.8%), and 570 (89.2%) of those returned were counted. Of the ballots that were returned but not counted 41 were returned after the deadline, and 28 had a problem with the address. The most striking feature, though, is the fact that 144 ballots (8%) were returned undeliverable, and 700 (39.6%) were never returned. The numbers show that when the ballot is returned by the deadline, there is a high likelihood that the ballot will be tabulated in the official election count. The obvious disadvantage a Nebraska UOCAVA has, along with many other states, is that many of the ballots never arrive in the hands of the voter, and if they do, may not make it back to the election office in time. That fact is illuminated when compared to the regular absentee voters. Of those, 89,372 ballots were issued and 82,083 (91.8%) were returned and 81,016 (98.7%) were counted. Further, 220 (.002%) were returned undeliverable 116 (.001%) were spoiled or replaced, and 6,953 (7.7%) were never returned. The UOCAVA population of voters is a small sample compared to the greater population of absentee voters, yet as a group they have the most obstacles in place regarding the timely arrival of their ballot and access to resources to assist them.

In North Dakota, prior to the 2011 legislative session, all applications needed to have a signature, this meant that UOCAVA voters had to mail, fax, or scan and e-mail their application. Legislation was passed to allow for UOCAVA voters to use digital signatures.

If a UOCAVA voter only provided a mailing address, then that voter was mailed a ballot by the 45<sup>th</sup> day, or as soon as the application was received if after the 45<sup>th</sup> day. The voter was sent a package that includes their ballot, a secrecy envelope, and a return envelope which includes their voter's affidavit. If a UOCAVA voter provided a fax number, then the ballot and an affidavit were faxed to the voter. If a UOCAVA voter provided an e-mail address on the application, then the voter was sent an e-mail which contained both attachments and links to their ballot, instructions, affidavit, and envelope templates for returning their ballot by mail.

All ballots had to be marked on paper. UOCAVA voters who chose to receive their ballot via e-mail had to print the ballot before it could be marked. Once a UOCAVA voter marks a ballot (on paper) they have the same three options to return the ballot that they had to receive it. That is, any UOCAVA voter could return their ballot by mail, fax, or scan and e-mail it. Any ballot would need to be accompanied with an affidavit with a signature matching that on the application to be counted. Legislation was passed during the 2011 session that allows for UOCAVA voters to use electronic signatures and to mark their ballots electronically rather than forcing them to print a paper copy of the ballot.

In 2010 there were 266 UOCAVA applicants. This number was then reduced to 264 when two applicants rescinded their UOCAVA status. Both of these voters were retired military

and were confused by the UOCAVA space in the application. Of the ballots sent out, 176 (67%) were returned and submitted to be counted, one was spoiled, and the status of the other 87 (34%) ballots is still unknown. Five FWAB's were submitted bringing the total number of ballots sent to election boards up to 181. Of those, only one ballot was rejected due to a problem with the signature. 180 (68%) UOCAVA ballots were cast. 91 (34.2%) UOCAVA applicants chose to receive their ballot via e-mail. Of these, 52 (57%) ballots were returned, however there is no way to track how many were returned via e-mail, fax, or mail.

As presented in the previous paragraphs, many UOCAVA voters have been left out of the voting experience, because of the current technological and legislative barriers. The States' proposal will enhance the current processes to be assured their vote counts. When fully implemented, at the States' expense, the States will measure performance and effectiveness by an increase in the number of ballots returned and counted. With regards to the 2010 General Election, the States' averaged 56% of ballots returned and counted. The States propose an increase of 25% in ballots returned and counted for the 2012 General Election for UOCAVA voters. The States proposal will also include a mobile device application to allow an even broader and more accessible voting experience for the UOCAVA voter. With this mobile application, the States propose a 25% increase in UOCAVA voters accessing the ballot. Technology has become the greatest tool in eliminating these barriers that UOCAVA voters face. The States must embrace technology and assure more UOCAVA voters the right to vote.

Security of the system will be another determining factor to measure the success of this project. Since the ballots that will be transmitted electronically, in essence, would be actual marked ballots, and the demographic information of each individual UOCAV voter will be pertained in each state's voter registration system, security of the system is of the upmost importance. The States propose to have each individual state's IT department serve as the hosting environment. Each individual state has already established a secure state network that cannot be accessed from outside the network. As mentioned in the Technical Approach section of this grant proposal, the actual marked ballot will be stored as a "blob" on a server within each state's secure internal network.

Another tool to measure the success of this project will be the incorporation of a survey that UOCAVA voters will be able to fill out during the 2012 General Election once they have completed marking their ballot. This survey will consist of a few questions relating to the overall voting experience, accessibility, functionality, security, and likeability of the ASIMOV system. This survey will give the States a first-hand analysis of how UOCAVA voters truly felt about their voting experience. The States propose a favorable rate of 85% to deem the project a success.

It will also be extremely important to have sound financial management during and beyond the term of this grant to make this project sustainable, cost-effective, and most importantly, a robust and viable system which will continue to serve UOCAVA voters. The financial aspect of this grant will be a determining factor in how the States approach the development phase of the system that the States propose. Sound, fiscal, and common sense financial management will be one of the leading factors in determining this system a success.

To fully monitor and implement this initiative, there will be a project director who will oversee all aspects of grant management and a member from each state who will serve as a state contact for the project director. Brandon Johnson is the Help America Vote Act (HAVA) Coordinator for the State of South Dakota and will be the project director for this grant. Mr. Johnson holds a Bachelor of Science degree in Business Administration from North Dakota State University and serves as the grant manager for all federal funds that pertain to elections in South Dakota. Mr. Johnson will also work closely with Debbie Trapp who is the Fiscal Manager for the South Dakota Secretary of State's Office. Mrs. Trapp holds two Bachelor Degrees; one in Commercial Economics and one in Agricultural Business from South Dakota State University. She also has an Associate's Degree in Business Administration from National College. Both employees are currently employed by the State of South Dakota and will not be funded by this grant. Mrs. Trapp will provide Mr. Johnson with sound fiscal oversight in all financial aspects of this grant.

Marisa Roseberry is an Elections Specialist for the State of Iowa and will be the State Contact for Iowa. Ms. Roseberry will cover all aspects of this grant that relate to the State of Iowa and will gather all of the necessary information for fiscal year-end related reports to the Federal Government. Ms. Roseberry currently provides support for various election programs, including Iowa's election management, voter registration system, and the election night reporting system. Ms. Roseberry also assists county auditors and their staffs in election administration and is also the web developer for Iowa's election website.

The State Contact for the State of Nebraska will be Nate Dobbs. Mr. Dobbs is an Elections Specialist for Nebraska and will also cover any aspects related to this grant for that state. Mr. Dobbs holds a Bachelor's Degree in Political Science from the University of Arizona, and primarily oversees the operation, maintenance, and inventory of the HAVA tabulation equipment placed in all 93 counties. Mr. Dobbs also works with guidelines involving Nebraska's military and overseas voters, including the development of new protocols in response to the MOVE Act. Mr. Dobbs assists in election night reporting, approving payments to vendors, matters involving the Standards Board of the Election Assistance Commission (EAC), and assists the counties in the use of the centralized voter registration system.

John Arnold will serve as the State Contact for North Dakota. Mr. Arnold earned a Bachelor's Degree in East Asian Studies and Political Science from Minnesota State University Moorhead and earned a Master's Degree in Public Administration from the University of North Dakota. Mr. Arnold is currently the Voting Facilitator for the North Dakota Association of Counties. Mr. Arnold's primary job duties consist of assisting the state in the management of its election systems and the counties in the implementation of elections, and also serve as liaison between the state's county auditors and the North Dakota Secretary of State's Office.

If awarded this grant, the States will follow all relevant, individual procurement policies, including the issuance of Request for Proposals (RFPs) as necessary.

#### IV. Budget Proposal

The States' proposed Advanced Simplification In Military and Overseas Voting (ASIMOV) system will yield a high return on investment. The States transmitted 5,442 absentee ballots to UOCAVA voters in the 2010 General Election. The States' proposed funding amount is \$860,970. Based on the 2010 General Election data, the proposed solution will cost \$162.25 per UOCAVA voter. With the development of both the ASIMOV system and a mobile device application, the States propose an increase of 25% of overall UOCAVA registrants, yielding an increase of UOCAVA ballots transmitted for the 2012 General Election to be an estimated 6,802 UOCAVA voters, resulting in a reduction of cost per voter to \$129.81. Also, with 2012 being a presidential election, the States could see a possible increase of 50% in UOCAVA absentee ballot applications sent, bringing the cost per voter to \$108.17. If the UOCAVA voter chooses to take full advantage of the ASIMOV system and mark their ballot online and return their ballot electronically, the States could possibly see a 100% success rate in returned ballots.

Category	Requested Amount	Justification
Direct Labor	\$90,000	The States' proposed solution requires direct labor costs. The project director and state contacts are current employees of each individual state, therefor their salaries are already being funded and do not require grant funding. The project director and state contacts do not foresee an abundant number of hours required to mark this project a success, therefore the States submit no direct labor costs for state employees. However, the States' proposal requires each individual state to host the application on their secured network servers. There will be labor costs involved in transitioning the application from BPro, Inc. to the States' servers for security testing. The States' IT departments estimate the project will take 100 hours to set up at \$75 per hour for labor and 3 employees from each state.
Administrative and clerical labor	\$0	The States' proposed solution requires no administrative and clerical labor costs. The States do not foresee costs associated with administrative and clerical labor. The project director and states contact, as mentioned above, are state employees, therefore no costs associated to labor will need to be funded by the grant.
Fringe Benefits and Indirect Costs	\$0	The States' proposed solution requires no fringe benefits and indirect costs. The project director and state contacts are state employees;

#### **Itemized Budget:**

		all benefits that are associated with those employees will be covered by state funding and not grant funding.
Travel	\$50,000	The States propose for its members, 20 total, to attend the UOCAVA Solutions Working Group Meeting in San Francisco, California, August 6 <sup>th</sup> and 7 <sup>th</sup> , 2011. The purpose of attending this meeting is to discuss further the development of the ASIMOV system with Federal Voting Assistance Program (FVAP) professionals and other election officials. The estimated cost to attend the workshop would be \$1,500 per employee, which includes airfare, lodging and meals. The States also propose to travel to military installation to test the application and security of the ASIMOV system with first-hand knowledge of the voting experience that UOCAVA voters face. Travel to these military installations will be done by each individual state during the testing phase of this project. Based on each individuals state's per diem, travel will be at the cost of \$1,000 per person, equaling \$5,000 per state.
Subcontracts/ sub awards	\$400,000	The costs associated to the budget proposal in this section were completed by BPro, Inc. (BPro). The total costs of this section are based on BPro's official bid to the States. The costs associated in this section are strictly development costs for the ASIMOV system. No development equipment or testing equipment is referenced in this section.
Consultants	\$10,000	At this time, the States foresee no cost for consultants. BPro does not foresee using consultants during the development phase of this project. When testing begins, there may be a need to hire consultants for testing purposes. If such a case arises, the States propose funding for consultants at a cost of \$10,000.
Materials and Supplies	\$252,700 Each: Apple iPhone: \$299 Annual 3G: \$300 Motorola Droid: \$199 Annual 3G: \$360 Apple iPad: \$829	Materials and supplies that are listed in this section include mobile devices for testing purposes for each state and the necessary servers (web and SQL) required for storage and security testing. Because of the nature of technology, the States propose to have the ASIMOV system as a mobile application for the Apple iPhone, Motorola Droid, Apple iPad,

	Annual 3G: \$300 Motorola Xoom: \$599 Annual 3G: \$420 Each: Dell PowerEdge R715 web server: \$12,237 Dell PowerEdge R715 SQL server: \$11,086	and Motorola Xoom. The States are comprised of Iowa, Nebraska, North Dakota, and South Dakota; therefore the States are requesting one of each mobile device for each state's election department employee (20) to test each individual state's application of the ASIMOV system. The ASIMOV system will be tailor- made to represent each state's election law; therefore requiring different functionality within the ASIMOV system and requiring testing for all of the States. Servers will be used to store the critical voter information that relates to the ASIMOV system. Both SQL servers and web servers will be used for development and testing purposes. The States will need to test the servers for maximum load capacity as it relates to number of users and data storage. The servers would also need to be tested for security purposes.
Other Direct Costs	\$80,270	All costs have been accounted for to the best of the States' knowledge. However, the States propose this amount to cover charges that may arise during the period of this grant. For example, additional costs from each individual state's IT department that is unforeseen. Additional costs for equipment in case of supply and demand increases due to natural disasters, work shortages, etc.
Total	\$882,970	

For each state involved with this grant the return on investment will be tremendous. BPro is building this for each state and turning over the ownership of the code to each state individually. This means that on a go forward basis, the costs to the States will be limited to hosting the utility in their data centers and for any enhancements that would be required because of specific law changes. Since the code will be owned by each state, we will not be limited to BPro as our only qualified vendor for work on the system. We will each be allowed to modify it internally, hire another vendor, or continue to contract with BPro. In many other cases, a vendor would charge a 20% license fee just for a state to continue using the application with additional enhancements over and above that amount. The States will have none of those additional fees. "TECHNICAL PROPOSAL" FOR THE PRODUCTION OF AN INSTRUCTIONAL VIDEO CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 12.217 FEDERAL VOTING ASSISTANCE PROGRAM DEPARTMENT OF DEFENSE ELECTRONIC ABSENTEE SYSTEMS FOR ELECTIONS (EASE) GRANTS FOR STATES, TERRITORIES AND LOCALITITES BAA SOLICITATION NUMBER H98210-11-BAA-0001

> SUBMITTED BY: UNION COUNTY COUNTY CLERK'S OFFICE 2 BROAD STREET ELIZABETH, NEW JERSEY 07207 DUNS NUMBER: (b)(4) CAGE CODE: (b)(4)

#### ADMINISTRATIVE AND TECHNICAL CONTACT: ALAN FALCONE, DEPUTY CLERK 2 BROAD STREET ELIZABETH,NEW JERSEY 07207 908-527-4786 FAX # 908-558-2589 EMAIL: AFALCONE@UCNJ.ORG PERIOD OF PERFORMANCE: ONE TIME PRODUCTION COST, COMPLETION WITHIN THREE MONTHS

The state of New Jersey and its 21 counties have extensive statutory mandates and systems in place to support voting by UOCAVA voters, separate and apart from the procedures used for the general electorate, including requirements to:

- Provide voter registration and absentee ballot application information and forms electronically or by fax;
- Transmit absentee ballots electronically or by fax;
- Transmit ballots 45 days before any federal elections.

At the present time, a Military or Overseas voter can apply and vote electronically in less than an hour. The system is user-friendly but does involve several steps that the voter must perform in order to meet state voting mandates. To improve the voting experience the following proposal is being made to enhance the process for the UOCAVA voter.

The military or overseas voter would go to the Union County Clerk's website <u>www.ucnj.org/government/county-clerk</u> to download applications for absentee ballots

and for any communications with our Election Division. The proposed project is to produce an instructional video which would be available for any user of the website to see. The video would include the following:

- A step- by- step visual presentation on how the voter would download the form;
- Instructions on how to fill out the form;
- The process on how the Clerk's office verifies registration;
- Instructions on how to electronically resend the signed application to the office;
- How to read and vote on the ballot:
- How to electronically or fax the ballot to the Board of Elections.

The video would be an educational and instructional tool to help the Military and Overseas voter through the various stages of the voting process. This is to ensure the voter's success. The video would encourage other voters who might be hesitant to vote using this system. It would show the simplicity of the process with graphic demonstration and simple instructional language.

One of the purposes of the video would be to increase the number of voters. In the 2008 Presidential November election, there were over 1300 UOCAVA voters in Union County. In the 2010 Federal election, there were over 500 voters. The impact of the video would hopefully increase by 20 percent the number of registrations, absentee ballot applications, information inquiries, ballot transmissions, ballot markings and ballot returns.

There is currently on the website an instructional video for regular voters on how to prepare an absentee ballot application and where to send the application and ballot upon completion. The url is <u>www.ucnj.org/government/county</u>-clerk/elections. It has been used extensively by the general public and the Clerk's office has received many favorable comments about it. All Military and Oversea voters would be able to access the video since it is on a worldwide website. The impact of the video could encourage other counties to produce a similar video for each one of their websites.

The cost of production will not exceed \$5,000.00. The funding source will only be billed from the actual invoice received from the production company. This would be a one-time cost. Quotes will be solicited from three qualified vendors upon confirmation of grant award. All vendors will meet purchasing requirements of the State of New Jersey and the County of Union. We ask the Federal Voting Assistance Program to accept this proposal since it is a minimal cost with a very high impact upon a large voter base. It would be a very helpful instructional tool which would assist voters as well as encourage new voters. It is a simple idea which will enhance the absentee voting process for uniformed personnel, their spouses and dependents as well as overseas citizens.

# **Technical Proposal**

- 1. Catalog of Federal Domestic Assistance (CFDA) Number: 12.217
- 2. BAA Number: H98210-FVAP-11-BAA-0001 Updated to new number
- 3. <u>Title of Proposal</u>: "Improving the Voting Experience for Utah's UOCAVA Voters and The Election Officials that Serve"
- 4. <u>CAGE Code</u>: <u>DUNs Number</u>: (b)(4)
- 5. <u>Applicant</u>: State of Utah <u>Partner Contractor</u>: Everyone Counts
- 6. <u>Technical Contact</u>: Mark Thomas, State Elections Director Utah State Capitol, Suite 220 P O Box 142325 Salt Lake City, UT 84114 Phone: 801-538-1041 Fax: 801-538-1133 email: mjthomas@utah.gov
- 7. <u>Administrative Contact</u>: Mark Thomas, State Elections Director Utah State Capitol, Suite 220 P O Box 142325 Salt Lake City, UT 84114 Phone: 801-538-1041 Fax: 801-538-1133 email: mjthomas@utah.gov
- 8. Period of Performance: Date of Award to December 31, 2012

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# **Technical Approach and Justification**

This grant application is being submitted by the State of Utah on behalf of its 29 counties. Not every county will use all of the tools described in this grant application and the implementation of the various modules described may occur at different times, based on the counties' elections schedules and workload considerations.

## **Executive Summary**

The state of Utah is excited to submit this grant proposal to investigate, evaluate, and field test methods to improve our ability to support our UOCAVA voters. We look forward to enhancing and building upon the solutions that were utilized in 2010 and expanding the number of counties that will participate. The state of Utah and participating counties are highly committed to ensuring UOCAVA voters are given every opportunity to participate in our democratic process, and have a track record of quality service and continuous improvements to that process. Some of these improvements include:

- In March of 2011, the Uniform Military and Overseas Voters Act (UMOVA), as approved by the Uniform Law Commission, was signed into law.
- Utah recently made dramatic changes to its election deadlines, including moving the candidate certification dates to earlier in the year, in order to ensure the county clerks have a sufficient amount of time to prepare, print, and deliver the ballots before the 45 day deadline for both the primary and general elections.
- For the 2010 general election, Utah collaborated with Everyone Counts and provided a robust website that allowed UOCAVA voters to request and receive an absentee ballot.
- In 2010, Utah launched a website to allow all voters, including military and overseas voters, the ability to track their absentee ballot using a web base program.

Even with these efforts and Utah's record of excellent support to UOCAVA voters, there is still much more that can be done to improve military and overseas voters' ability to vote in a timely manner, including:

- Enhancing the ability of military personnel to fully participate in local, state, and federal elections, regardless of deployment status or location.
- Improving opportunities for citizens of Utah who live overseas to continue to contribute to and participate in local political activities and participate in local, state, and federal elections.
- Expanding the availability of accessible voting technology for Utah's voters with disabilities, both those overseas and within the state.
- Providing state and county elections officials with the technology and equipment necessary to more effectively and efficiently provide these services to military and overseas voters.

 Increasing both the quality and the availability of elections information distributed to military and overseas voters and disabled voters, including candidate and party platforms, registration and voting instructions, etc.

One of the primary challenges faced is the long time dependence on postal services (USPS, military, diplomatic, and foreign) for the delivery of ballots and other election materials. With many UOCAVA voters serving in remote locations, such as forward operating bases in Afghanistan or at sea, round-trip transit time can take weeks, if not longer.

Individuals deployed at sea may go months without calling at a port and receiving mail. Other voters may be assigned to temporary duty at a location other than their permanent duty station, requiring their postal mail to be forwarded, further lengthening the transit time. This leads to a high likelihood that a voter may be disenfranchised because of inadequate time to receive and return their ballot. This situation is further exacerbated if any issues arise with the voter's ballot and the elections office needs to communicate with the voter to resolve the issue, requiring a second round-trip transit of materials – almost guaranteeing that the voter's vote will not be counted.

Fortunately, there are alternatives to the current system. The ubiquitous nature of the Internet provides for use of technology to provide more real-time support to the UOCAVA voter. Even in areas where postal service delivery is difficult or even non-existent, Internet access is generally available. Technology presents a considerable opportunity for significant leaps in the ability to provide timely support to UOCAVA voters, increasing their participation in elections and, more importantly, the success rate of those that do participate.

To this end, the state of Utah and our participating counties welcome the opportunity to investigate and use technological solutions to overcome the barriers to full and timely participation by the UOCAVA community and provide better tools to improve the voting experience for the voter.

To assist us in this effort, the state of Utah has engaged the support of our 2010 vendor from the approved vendor list, Everyone Counts. Everyone Counts is a firm completely dedicated to the use of universally accessible technology to improve elections processes. They are 100% U.S. owned and have been in the business of supporting elections since 1997. Based on the success of our 2010 program, we are convinced they are the right choice for our continued development and testing of UOCAVA voting solutions.

# **Goals and Objectives**

The state of Utah intends to develop a complete and scalable solution to address the above cited issues and goals. We will do this through existing, emerging, and new technologies to provide every UOCAVA voter with a universally accessible and secure voting experience. We will also set out to address administrative challenges that election officials face in providing timely and

complete support for the delivery, receipt,t and processing of these important ballots. The state, through the participating counties, proposes to provide the UOCAVA voter with the ability to access their ballot online using any web-enabled computer through the computer's web browser.

All communications between the voter's browser and the server will be secured using a minimum of 256-bit encryption. The voter will have access to the ballot 24 hours a day, 7 days a week for the duration of the voting access period anywhere there is Internet access.

After accessing their ballot, the voter is provided with several options for ballot delivery and return.

#### Blank Paper Ballot Delivery

- 1. Voter authenticates with secure ballot delivery interface
- 2. Voter is provided with their correct ballot style
- 3. Ballot is downloaded, along with associated oath, envelope template, and return instructions, as required by Utah Law
- 4. Voter marks and completes ballot by hand
- 5. Voter signs oath
- 6. Voter returns ballot package by one of the following methods, as approved by Utah Law
  - a. Postal Service
  - b. FAX
  - c. Scanned and electronically mailed PDF

#### **Online Ballot Marking**

- 1. Voter authenticates with secure ballot delivery interface
- 2. Voter is provided with their correct ballot style
- 3. Voter marks and completes ballot online
- 4. Voter choices are rendered on the ballot as a digital, 2D bar code
- 5. At this point, the voter has the option to download the ballot and other material or have the ballot delivery system email the ballot and supporting material to the election office.

#### **Delivery Options**

#### Download, Sign and Return

1. Bar coded ballot is downloaded, along with associated oath, envelope template, and return

#### **Electronically Sign and Return**

1. Voter uploads an image of their signature to the ballot delivery system

instructions, as required by Utah law

- 2. Voter signs oath
- 3. Voter returns ballot package in one of the following methods, as approved by Utah law:
  - a. Postal Service
  - b. FAX
  - c. Scanned and Electronically Mailed PDF
- 2. Ballot delivery system affixes the signature to the oath
- 3. Provide opportunity for voter to review the ballot, as well as the oath with their affixed signature
- 4. Ballot delivery system emails the ballot, along with the signed oath to the elections office on behalf of the voter.

#### **Email Encryption**

Encrypted, electronic mail services will be provided to each voter for the purposes of electronically mailing their scanned PDF ballots. Access will be provided to each voter through a secure online form. This secure method of electronic mail delivery addresses a concern raised in NISTIR 7551.

#### Automated Ballot Duplication

Ballots produced by the ballot delivery system contain a 2D bar code that contains the ballot style, precinct, and the voter's preferences. This bar code provides an effective and efficient means of duplicating a non-machine readable ballot to a tabulation ready ballot produced by a ballot on demand system.

Without this, participating counties could potentially be overwhelmed by the need to manually duplicate thousands of ballots returned if our goals for increased participation by UOCAVA voters are achieved. The bar code contains no personal identifying information. Owners of some smart phones with the appropriate app can inspect the bar code to verify personal identifying information is not contained in the bar code.

#### **Return Envelope Tracking**

The envelope template contains a bar code with the voter's unique ID. This bar code enables identification of the voter when the ballot envelope is scanned by the sorter when received, flagging the voter in the voter registration system as having returned the ballot.

#### Accessibility

The ballot delivery system is required to be both section 508 (web accessibility compliance) and section 203 (Voting Rights Act - alternative languages) compliant. An additional benefit of the solution we have chosen is that we will be able to improve our service to the disability community in addition to the UOCAVA community. The solution can also be accessed by

military men and women wounded in combat through JAWS readers or other assistive devices.

#### Integration with existing EMS Systems

The ballot delivery system is required to be compatible with our election management system to reduce the complexity of transferring ballot definition information to the ballot delivery system in preparation for the election.

#### Voter Authentication

To validate the authentication of voters, and to ensure that all voters receive the correct ballot style, each voter will be required to log on using distinct credentials. Authentication will be accomplished by the voter entering their first name, last name, and other yet to be determined information that will uniquely identify the voter.

In the state of Utah, the voter's signature and oath are submitted with each ballot. The signature is considered the authoritative authentication of the voter. However, authentication of the voter in the ballot delivery system is required to ensure the proper ballot style is provided to the voter.

In the event that the voter is unable to be located in the voter registration database, they will be asked for their address to determine the appropriate ballot style. If the voter does not know their registered address or the provided address is unable to be located, the voter will be provided with a generic ballot to ensure that they are not disenfranchised.

Participating counties will provide the vendor, Everyone Counts, with an extract of their voter registration database. Initially this will be accomplished with a flat file export that will be periodically re-exported for the purposes of update. As this research project progresses, we will research and, if appropriate, implement a real-time web services-based integration.

#### **Real-time VRDB** Authentication

As a part of our ongoing research, voters who are not found in the voter registration database managed by the county will be searched utilizing a direct link to the state of Utah's Voter Registration Data Base system, called VISTA. This will provide maximum flexibility for voters that believe they are registered in a particular county when they are actually registered in different county. After being located in the database, the voter can then be redirected to the jurisdiction in which they are registered. This integration will likely be available during the 2012 calendar year.

#### **Online Voter Registration**

The state of Utah launched its online voter registration website in June of 2010. This allows for quick and convenient voter registration, particularly for UOCAVA voters. The website also allows a voter to update their outdated registration information, such as a name, address, or party affiliation. The online registration website will be fully integrated with the ballot delivery system, and will provide all potential UOCAVA voters the ability to register over the Internet.

#### **Election Administration Efficiencies and Common Data Formats**

As part of our research, we will be researching solutions that will

- Reduce the ongoing cost of the administration of serving UOCAVA voters
- Increase accuracy of the UOCAVA ballots
- Reducing the potential for human error
- Serving more voters with their full ballot

As supporting research, this effort will enable implementation of the upcoming FVAP Common Data Format (CDF), this will allow the integration of eLect with different EMS and voter registration systems used throughout Utah.

#### eLect Administration Web Control Panel - Phase 1 (optional)

Everyone Counts and the state of Utah will develop an Administrative Web Control Panel that will allow non-technical Election Administrators to configure and manage elections using a web interface.

This Administrative Control Panel will provide a wizard-style interface for building ballots, and subsequently an election. Through the insourcing and streamlining of this activity, Utah will drastically reduce the overall costs associated with election building when utilizing third-party vendors.

#### eLect Administration Web Control Panel - Phase 2

The eLect Administrative Web Control Panel will be integrated directly with disparate counties Election Management Systems and Voter Registration Databases utilizing the Common Data Format, where supported by the counties EMS and VR Systems.

Everyone Counts will enhance the Administrative Control Panel to add a wizard that will allow non-technical Election Administrators to import data from individual counties EMS and VR systems, and guides the Election Administrator through the building of an election in a wizard-style web interface.

#### Integration with existing online systems

In 2010, Utah implemented an online ballot tracking system. This web-based program allows a voter to ascertain several items, including:

- if an absentee ballot is scheduled to be sent
- the date the ballot was sent
- the date the ballot was returned
- if the absentee ballot was counted
- if not counted, a description of why it was not counted

To provide as much information to voters as possible, the ballot delivery system will contain

links to other features housed on the state and/or county websites, such as our Voter Information Website, which allows a registered voter to do the following:

- view their precinct and polling location information
- find out wait time for polling location
- view a sample ballot
- view a list of their current elected officials
- view the voter information pamphlet
- view information on ballot proposition
- obtain the biographical information, website links, and candidate information for whom the voter is eligible to vote.

People not registered will have the opportunity to register online.

#### Voter Outreach

The state of Utah and key counties are also in need of the ability to provide outreach to our UOCAVA community. After the 2010 election, our office felt we could have done a better job in communicating to the UOCAVA community. Although Utah had the second highest percentage of UOCAVA voters using the online system, much more can be done. Participating counties intend to use tools and services provided by Everyone Counts to facilitate messaging to UOCAVA voters, including SMS text messaging, email, and other methods. This messaging will allow participating counties and the state to be proactive in communicating with voters. Other methods could include simple but effective media campaigns. For example:

- Targeted online media campaign via Facebook. Though there are restrictions on what military and LDS Church missionaries can reveal and when they can visit Facebook, the popular social network has a very cost-effective system for buying advertising that can specifically target Utah voters overseas via their home network and related affiliations. Information can be shared that could drive overseas voters to a specific website and/or make them aware of possibilities to register and/or vote online for upcoming elections. Facebook would also work to drive efforts on a grassroots basis, with development of an "I voted" badge or similar graphic that would entice others overseas to find out more about voting.
- Paid search word optimization buys with Google. Designate keywords for military or overseas voters who may be searching for voting options and standards. Drive them to central website and related online portals of information for registering and voting while out of state.
- Develop media plan for advertising with KSL.com, SLTrib.com, MSNBC.com, FoxNews.com (that "realize" where a voter is and what his/her interests are) to promote messaging ("even if you're overseas....") and availability (via website, or other options) for Utahans serving military or church to discover possibilities even when visiting other news-oriented alternatives.
- Press event held by Lt. Gov. Greg Bell describing our websites and the new possibilities for Utah voters out of the country during election periods; encouraging "friends and

family" to remind military and overseas voters to make sure they're registered and realize the possibilities of voting via absentee ballot or online website.

• Coordinate insertion of basic flyer or information sheet with other materials shared with military, overseas, and, specifically, eligible Utah voters who are on religious missions overseas.

To further support these initiatives, an early demonstration and "practice" site will be set up for voters who wish to view the system before the voting period begins.

#### Mobile Kiosks

Our vendor has a kiosk solution that allows a means of setting up a "voting center" type of environment that could be used in areas where there is a concentration of voters (such as a military hospital), or where a unit may be deployed and unavailable during the election period. This system may operate independent of the internet and allows for the paper printing of ballots.

We are also considering this mobile unit as a tool for civics and community programs to demonstrate the process for UOCAVA voters.

#### Help Systems

The state of Utah will implement a robust suite of help features using the resources of both the vendor and the participating counties. This would include:

- 24/7 email and telephone support during the entire voting period
- Online chat support
- Context-specific help and FAQ's

The vendor will handle technical issues related to the site as well as afterhours calls, and participating counties will handle business hour inquiries for election-related items.

To provide a means for improving our implementation and to provide FVAP feedback on research completed, we will implement an optional survey for voters to complete. This will be tailored to the type of UOCAVA voter.

#### **Business Continuity**

To ensure that our UOCAVA community is well served by this system, our chosen vendor will maintain a robust business continuity plan that will ensure that the system remains available in the event of failures of primary servers and communications. This includes proper backups of systems and data, alternate sites in the event of failure of the primary site, and redundant hardware and communications.

In addition, a highly secure (physical and technological) environment is utilized by the vendor to ensure the integrity of the voting process. The vendor provides sufficient capacity to survive high traffic when all jurisdictions have elections at the same time.

#### Security

All communications between the voters' browser and the server will be secured using a minimum of 256-bit encryption.

If the voter elects to have the ballot delivery system email the ballot back on their behalf, the email shall be sent encrypted using a minimum of 256-bit encryption. The ballot delivery system shall not retain any record of the voter's selections anywhere on the system to include transaction logs, cache, etc.

Our chosen vendor maintains a physically secure facility using the most secure industry standards for threats against communications and malicious file threats (e.g. highly secure firewalls, procedures to protect against denial of service attack, anti-virus and anti-spy ware applications, etc.).

Voter data, including the copy of the extract of the county's voter registration system, will be used for the sole purpose of authenticating voters and will be protected from dissemination to anyone (including internal vendor staff).

### **Evaluation Factors**

#### Significance

- Addresses all known stages voter registration, ballot delivery, ballot markup, ballot return, ballot tracking, and challenges after ballot return
- Links to our state's Online Voter Registration system
- Retains and increases access to FPCA capability
- Links to county and/or state resources such as online, tailored voter pamphlet
- Links to county or state ballot tracking system
- Provides ability for voter to mark up ballot online
- Provides option for the voter to have the ballot delivery system email the ballot on their behalf using encryption

#### Sustainability

- Utah plans to use and maintain this solution through 2016
- It is expected that savings we will realize from implementation of this system will be sufficient to pay for ongoing costs after one-time implementation costs
- Relatively low annual fees easily maintained by state and counties
- As a hosted solution, will not significantly increase load of elections staff

• The ability to automate the remarking process demonstrates labor savings, reduces the time it takes to process UOCAVA ballots, and will ensure more can be handled in agreed upon times frames

#### Impact

- All UOCAVA voters will be eligible to use proposed system
- The State of Utah represents the 3,000 UOCAVA voters
- The features of this proposal will improve our service to the disabled community as well as voters who wait until the last minute to request replacement ballots.
- At least 2 county-wide elections (Primary & General) each year
- Anticipate UOCAVA participation will at least double with the use of this system within the first year (over two elections) and the increased outreach that accompany implementation of this system

#### Strategic Approach

- Overall comprehensive, multi-pronged solution that allows the voter a choice of ways to receive and return their ballot
- Use of the Internet with real-time capability to overcome inherent issues with movement of ballots and other materials via a constrained postal delivery system
- Provides access to ballots 24/7 anywhere the Internet can be accessed
- Testing of several new concepts (such as mobile voting units and encrypted email return of ballots) that could provide better integrity of the process

#### Innovation

- Automated ballot duplication, that is, the ability to translate ballots not compliant with tabulation equipment to tabulation ready using 2D bar-code
- Option for voter to upload signature image and have the ballot delivery system email ballot on behalf of the voter using encrypted email
- Kiosks and remote voting stations
- Use of email and SMS messaging capabilities for voter outreach

#### Scalability

• The design principals proposed by the state, along with the vendor Everyone Counts have taken into account the challenges associated with scaling to accommodate additional voters and functionality. Specifically, the following scaling scenarios have been accommodated as a part of the design:

- Additional voter demand
- Additional upgrades to initial features
- Everyone Counts, using the proven design employed within this grant has conducted large elections electronically in a number of jurisdictions without any scalability issues
  - o Australia March 2011 50,000 Voters
  - o Honolulu May 2011 18,000 Voters
  - o National Student Parent Mock Election 2004 hosted 4 million voters on one day

#### Collaboration

- The state of Utah will be acting as the lead in the development of this concept. A county task force will be assigned to collaborate in the program development, election set up, setting of testing parameters, and analysis of results.
- The design of our proposed implementation is such that it should be usable by any other jurisdiction that does not have more restrictive regulations.
- We also plan to engage with like jurisdictions to review approaches once grant awards are made and project implementations begin.

## Schedule and Milestones

Milestones in the project shall consist of the following for each election during the EASE grant time period:

- **Kickoff Meeting** the first meeting after the contract has been awarded, during which team members are introduced, stakeholders documented, and key election project properties defined.
- **Finalize full project scope** and detailed requirements. To include measurable objectives by project deliverable.
- Active Project Management Cycle including delivery of components for user acceptance testing and release.
- Data Delivery Counties provide vendor with data.
- Election Logic and Accuracy Testing the completion of client User Acceptance Testing, after which the election is locked for voters.
- Election Go Live the first day when voters can vote in the online election
- Election Close the final day of voting in the election.
- Election Certification In general, 15 days after the election for the Primary and Special Elections and 21 days after the General Election.
- **Reporting** upon close of the election, the research data will be aggregated and the final report will be written. As stated in the reporting section, reports are available on-demand, at anytime during the election to authorized individuals.

The following is a sample Gantt chart for one election.

D	Task Name	Start	Finish	3rd Quarter 4th Quarter 1st Quarter 2nd Quart Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May
t	Color Legend			Jul (Aug Sep Oct (Nov Dec Jan Pee Mai Apr Imay)
2	Gilent Task			
3	Project Phase Begin			6
4	Milestone			1 1 1 1
5	- 2011 General Election	8-1/11	1/31/12	
6	Contract A warded	5/1(11	5/1/11	4-8/1
7	- Initiation	8/8/11	8/18/11	
8	Kickoff Meeting	6/6/11	8/8/11	Client, Everyone Counts
9	Job Specification Calls	8/9/11	B/9/11	Client,Everyone Counts
10	Implementation Plan	8/10/11	8/10/11	Everyone Counts
11	Project Plan	8/17/11	5/17/11	Everyone Counts
12	- Build	8/29/11	9/5/11	999
13	Client Delivers Draft Ballot Date	8/29/11	8/29/11	3/29
14	Client Delivers Initial Voter Registration Data	8/29/11	8/29/11	3/29
15	Draft Election Built	8/29/11	9/2/11	Everyone Counts,
16	Draft Voter Registration Credentials Loaded	9/5/11	9/5/11	Everyone Counts
17	- Test	9/6/11	9/21/11	and a second sec
18	Everyone Counts Testing and Review	9/6/11	9/13/11	Everyone Counts
19	Voter Registration Database to Everyone Counts	9/13/11	9/13/11	<b>9/13</b>
20	Client Testing and Review	9/14/11	8/20/11	Cilent
21	Election Logic and Accuracy Testing	9/21/11	9/21/11	Client, Everyone Counts
22	Election Locked for Voters	9/21/11	9/21/11	i 9/21
23	- Election	9/24/11	11/8/11	
24	Election Goes Live	9/24/11	11/2/11	. 9/24 ·
25	Scheduled Voter Registration Database Releases	9/24/11	11/8/11	Client
26	Scheduled Voter Registration Database Updates	9/24/11	11/8/11	Everyone Counts
27	Election Maintenance and Reporting	9/24/11	11/8/11	Everyone Counts
28	Electron Closes	11/8/11	11/5/11	♦11/8
29	- Report	11/8/11	11/15/11	444
30	Final Report, including lifeasurement against Strategic Goals and Lessons Learned	11/8/11	11/15/11	Everyone Counts
31	- Post Election Support	11/8/11	1/31/12	
32	Election Remains Functional and Available in case of recounts or audits	11/8/11	1/31/12	Everyone Counts
33	Certification of Election Results	11/29/11	11/29/11	♦ 11/29

# Reporting

Comprehensive reporting will be implemented to monitor and provide analytical tools for all portions of the election management process. This is facilitated by having reports in the following areas:

- On-Demand Reporting Interface
- Logging of Systems Activity (for further analysis)
  - Post-Election Analysis of Activity
- Voter Surveys
- Customer Service and Help Desk Log Reports and Analysis
- Project Management Milestone Reporting
- Post-election reports

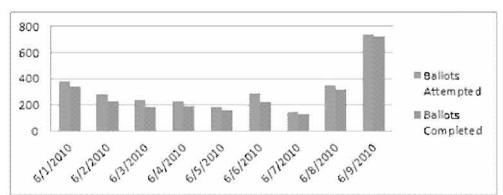
• UOCAVA Voter available tracking interface

#### **On-Demand Reporting Interface**

An on-demand reporting interface will provide real-time access to information regarding the activity of all running elections.

#### **Reports Provided**

- Voter Activity: The Voter Activity Report provides insight into system use. This includes:
  - Voting Activity / Hour
  - Voting Activity / Day
  - Total Voting Activity (within date range)
  - Voter Participation: This report provides
    - Turnout by District
    - Turnout by Channel (where available)
- Voter Locations: Report showing the source location of voting activity. Reports are based on the IP address, and
  - o Source City, ie: Los Angeles, United States
  - o Source Domain, ie: .mil, .gov
    - Where available via PTR DNS Records



#### **Ballots Attempted / Completed**

Typically, the graph spikes around the time of notification emails and reminders.

#### **Voter Location Report**

Country	City	Date	Logins
United States	New York	6/1/2010	377
United States	Los Angeles	6/1/2010	281
Canada	Toronto	6/1/2010	234
Great Britain	London	6/1/2010	228
France	Paris	6/1/2010	182
Germany	Berlin	6/1/2010	288
Canada	Ontario	6/1/2010	182
Japan	Tokyo	6/1/2010	178
		Total	2862

#### **Data Logging**

Everyone Counts uses event logs to archive all administrative and user access within the voting system. No logged data will ever associate a voter with the preferences they have marked on any ballot, ensuring voter privacy.

The following information is logged:

Access Period	This field refers to the period of the election and is customizable. Typically each election has three primary states: Content Review, L&A, and Live. All summary reports provided shall utilize data acquired during the "Live" period
Time (TimeZone)	This field is the server Date/Time stamp when the event occurred
Time (System Time)	This field is the Coordinated Universal Time, UTC, represented in POSIX Time
SessionID	This field is a browser session hash and is the unique identifier for all voters accessing the system
Event	<ul><li>This field represents the variety of events logged during each election:</li><li>User Login</li></ul>

- User Logout
- Ballot Accessed
- Ballot Printed
- Ballot Submitted (where available)
- **IP Address** This field is either the standard four-part IP address or, optionally, a hash of the IP Address, intended to ensure voter privacy. IP addresses can be used to identify the city from which the user is voting.

#### **Data Sample of Logs**

Access Period	Time (Canada/Pacific)	Time (System Seconds)	SessionID	IP Address	Event
Live	19-04-2010 09:06:29	1271693189	817e203e135bad14de1cbde203bed87f	207.229.6.250	User login
Live	19-04-2010 09:09:00	e 1271693340	3200d91b519t77526db200a130762ad3	68.147.223.212	User login
Live	19-04-2010 09:09:46	1271693386	a41b590c0dbt2c311acc28tcc72b871d	208.97.113.34	User login
Live	19-04-2010 09:12:19	1271693539	112819fc8dcb4f19fb056d1aa7c790c4	203.18.176.243	User login
Live	19-04-2010 09:15:05	1271693705	4c00cd4ca30c952188c20acd154dc867	208.80.96.57	User login
Live	19-04-2010 09:15:16	1271693716	b742ct1f2b14d9cb2394352c25dca8cf	74.198.12.3	User login
Live	19-04-2010 09:17:15	1271693835	176cc37d032cd935a598dc4d4261365f	64.39.171.41	User login
Live	19-04-2010 09:18:42	1271693922	c438782c27a8297c22df6d4c5269df17	199.212.48.2	User login
Live	19-04-2010 09:19:57	1271693997	7cddb3a3633a02cc652c2dbc2119c80d	68.179.94.250	User login
Live	19-04-2010 09:21:16	1271694076	b27d56c7c48a4059cc975dbf7a400caf	96.49.111.135	User login

The data sample above represents the first 10 logins during a Live Access Period opening at 9am.

#### **Data Analysis**

Upon the conclusion of all elections, data will be analyzed to measure the effectiveness of each election.

#### FPCA Signup Activity

Reports will be provided to Election Administrators showing signup activity and adoption rate of online-based FPCA sign ups.

#### **UOCAVA Voter-Accessible Tracking of Ballot**

Each voter has the ability to log into a ballot portal and track the progress of their ballot. This facility is provided by giving the voter a distinct receipt code that can then be used to access all available information regarding their ballot. Specifically:

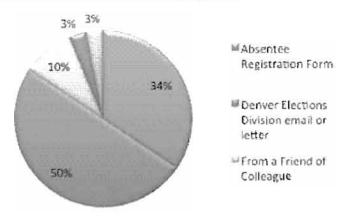
- Ballot Printed
- Ballot Submitted
- Ballot In-Transit
- Ballot Received
- Ballot Counted

#### Satisfaction Feedback Loops

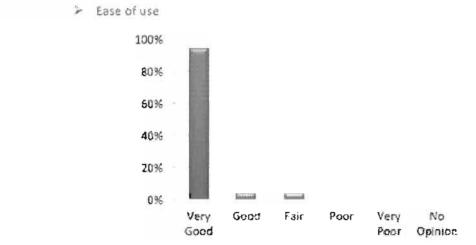
#### Voter Satisfaction Surveys

As a part of each election, voters are asked to complete a voluntary customer survey. These questions are collated and a report generated for each. Below are example questions with associated responses:

How did you learn about the online ballot access program?



Please rate the following features based on your experience using the online ballot marking tool:



Additionally, free-form questions will be asked, and all responses collated for

#### analysis.

Please provide any additional comments on the online ballot marking tool below:

- This is definitely a great system. Thank you.
- Seems like a great improvement over the previous mail in ballots. I have received mail in ballots in the past after the election date. This is an improvement, though I still received the mail in ballot by regular mail along with instructions on how to vote online. Seems like it might have been faster/cheaper/easier to receive electronic notification rather than regular mail.
- This is by far the easiest way for me to vote as an absentee voter. Fax, email, and mall ballots are all possible but very difficult to complete. This online voting process is easy, keep using and improving it!
- This (online voting) is great. I feel like my vote will be counted without relying on 2 postal systems. Plus it cuts down on paper, which is always a plus.
- None
- I appreciate the ability to still cast my ballot as an American temporarily living overseas. Lalways feit my mall in ballot never was counted & worried it would not make it in time. I feel my vote will be counted on the day of the election using this method.
- Much more convenient than faxing.
- get out the Online Votel No one knew this was possible until I got my piece of paper and posted it on Facebook. Thank you Amanda Hill for ALL of your help!

#### **Help Desk Statistics**

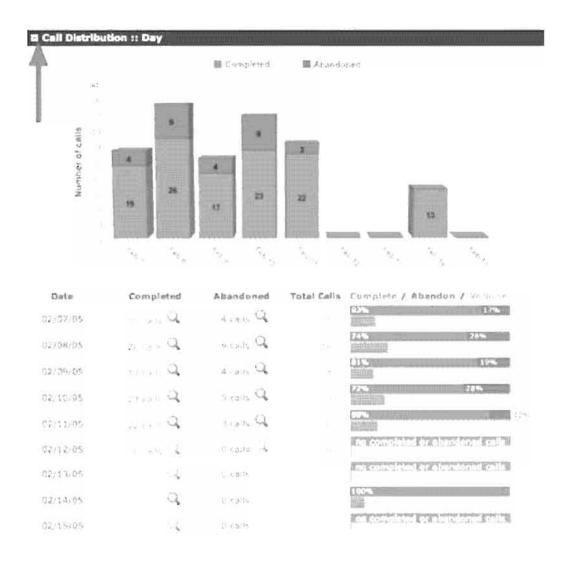
Help desk reports provide the following analysis of the amount of activity help desk systems experience throughout an election. Help desk reports provided include:

- E-Mail / Chat / Call Distribution
  - o Average Hold Time / Delay for Response
  - Number of Calls
    - By Day
    - By Hour
  - Abandonment Rate
- Symptom Analysis
  - Symptom causing inbound support request
  - Solution Provided

#### Symptom Analysis Example

Symptom	Resolution	Count	
Could Not Login to Voting System	Reset Credentials	38	
Forgot Voting System URL	Re-sent URL to Voter	17	
Signup Request	Signup user	9	1 1
Questions about online voting	Provide documentation	3	

#### Support Distribution Report Example



#### **Regression Analysis of Log Data**

At the conclusion of each election, all anonymous log data is analyzed for meaningful statistics to further the research associated with online voting systems. Intelligence is extracted in the following key areas:

- Peak Voter Activity
- Time to complete ballots
  - Time to complete contest (based on length)
- Preferred method of voting
- Number of errors warned
  - Number of errors corrected

#### **Project Management Reports**

Regular reports on project management milestones, as well as reports regarding financial progress of the project, will be provided to FVAP as key milestones are reached. These reports will address the successes, challenges, and barriers of the implementation and its use.

# **Management Approach**

The state of Utah has established the goal of improving accessibility and service to our UOCAVA voters through increased use of new and proven emerging technologies. Through use of the Internet, we reduce the dependency on the postal services that are by nature slow in delivery, problematic in handling changes in physical location of voters, and, in some areas, unreliable.

This proposal provides for a number of different features and capabilities the state will secure on behalf of Utah's election officials. We plan to research and implement the capabilities provided within this application. Each county will have the choice to use those capabilities that best meet their needs. Furthermore, we have committed to continuing with this research through the 2016 elections.

Implementation of various features and capabilities will be a phased approach to increase the probability of success. While building on our collective 2010 success, neither the participating counties nor Everyone Counts desires to try too much too soon. We will enhance and refine the survey tools to solicit relevant feedback from UOCAVA voters. Newer, more innovative capabilities will be implemented in the 2011 Special and Primary Elections after development and thorough testing.

The state will be taking the lead concerning this grant and coordinate activities between the participating counties. A cross county steering committee is being considered to ensure collaboration throughout the project. Internal county coordination will be up to each county. Where appropriate, Everyone Counts will work directly with each county for implementation where coordinated efforts are not required.

# **Current Process**

Counties receive voter registration requests from UOCAVA voters in several different ways paper forms mailed to county offices, the state of Utah online voter registration system, and the Federal Post Card Application (FPCA). Although not as prevalent, we also receive a few registrations via the Federal Write-in Absentee Ballot (FWAB).

All active UOCAVA voters are mailed a paper ballot 45 days in advance of primary and general elections and 30 days in advance of special elections. UOCAVA voters who have requested email ballots will be emailed ballots and instruction at the same time paper ballots are mailed. UOCAVA voters can call, email, or fax requests for an email ballot anytime up to 8 PM on Election Day.

UOCAVA voters have several options for returning their voted ballot to the elections office. They can mail the paper ballot, email the ballot, or fax the ballot.

# Justification for modification of current processes

The current process is too reliant on a delivery service (postal service) that takes too long to deliver the ballots (or registration requests) both to and from the UOCAVA voter. Additionally, the transient nature of many UOCAVA voters means that additional delivery time is required to forward the ballot to the voter's actual location. This is particularly true of deployed military personnel.

Many UOCAVA voters do not keep their mailing address current with the election office, resulting in failure to deliver or delay of delivery even further by forwarding. Nationally, FVAP estimates that 17% of military voters never receive their ballots. Use of the Internet allows the voter to access to their ballot and a means of voting anywhere there is access to the Internet anytime after 45 days prior to the elections. Additionally, email addresses have a higher likelihood of remaining current than physical mailing addresses. Even if the physical or email address is no longer current, an interested UOCAVA voter can proactively access their ballot twenty-four hours a day, seven days a week through our partner's (Everyone Counts) services by going through the links available on the FVAP web site.

The UOCAVA voter can immediately return their ballot electronically via several means. A process that previously took several weeks or longer can now be completed in the election office in an hour, as early as 45 days prior to the election and up to 8 PM on Election Day.

# **Proposed processes**

To facilitate UOCAVA voter absentee registration, we will use Everyone Counts' eLect Platform to provide a link to the state of Utah's voter registration system where the voter can provide the required information electronically. Alternatively, voters can continue to complete a FPCA electronically and either print, sign, and mail the FPCA to the elections office, or upload a signature and have Everyone Counts deliver it to the appropriate county's election office electronically.

A future enhancement to our implementation will be an interface to our state's Voter Registration Data Base (VRDB). This will allow a voter who mistakenly believes they are registered in the incorrect county to determine the actual county in which they are registered. Forty-five days prior to the election UOCAVA voters will be able to access their ballot through Everyone Counts' eLect Today product. Through the authentication process, they will receive the proper ballot for their registered address. The voter will then have several choices regarding voting and returning their ballot:

1) Print a blank ballot, cast their ballot by hand, sign the oath, and mail the paper ballot and oath to the election office by postal service;

2) Use the online wizard to cast their ballot; download the cast ballot, oath, and other materials; sign the oath; and mail the paper ballot and oath to the election office by postal service;

3) Use the online wizard to cast their ballot, download the cast ballot, oath, and other materials, sign the oath, attach the ballot and oath to an email, and email or fax the packet to the election office; or

4) Use the online wizard to cast their ballot, upload their signature to eLect Today, eLect Today attaches their signature to the oath, eLect Today attaches ballot and oath to an email, and eLect Today emails (encrypted) packet to the election office using voter's email address (This feature is an enhancement to be developed).

eLect Today will print a 2D bar code on cast ballots with the voter's choices embedded, as well as the precinct and ballot style. (Important note: No personal identification information will be included in the bar code, which can be verified by the voter using some smart phone apps.)

When ballots are received at the elections office, the elections office will use eLect Transcriber to auto duplicate returned ballots into tabulation ready ballots using the 2D bar code. This auto duplication process will save staff hours for handling the increased number of UOCAVA ballots generated by this proposal.

An enhancement for future development is a means of storing the voter's choices on a memory card (similar to current DRE process), which would be used to upload choices into the tabulation system, further improving the efficiency of the process.

We intend to use Everyone Counts eLect Notify product to improve outreach and communications to UOCAVA voters. eLect Notify allows elections officials to send emails or communications to UOCAVA voters. For instance, this could be used to notify a voter that there was an issue with their ballot (e.g. forgot to sign) or to warn voters that had not yet returned a ballot and the election date was fast approaching.

Using Everyone Counts eLect Platform, access will be provided to various county and state reference materials such as online voter pamphlets and ballot tracking. This will allow UOCAVA voters to obtain additional information about candidates and measures. The ballot tracking features will allow voters to verify that the election office has received their ballot.

Everyone Count is developing a mobile kiosk solution (eLect Mobile) that we intend to test for providing service to concentrated areas of UOCAVA voters.

As part of this grant, Everyone Counts will be developing an Administrative Wizard using Common Data Format technology to provide election officials with the ability perform some of the election administration and ballot build tasks themselves and eliminate the per election fee. This will result in less dependence on outside vendors' products.

Initially, voter data will be transferred to Everyone Counts' eLect system by flat file. As the project proceeds, we intend to develop more real-time integration between our voter registration systems and eLect Today to ensure the most up-to-date information about UOCAVA voters is available. This integration could also pass information back about voters who have voted to assist election officials in their staff and resource planning and to update tracking information. To protect the integrity of data and enhance the secrecy of the voter's choices, participating counties and Everyone Counts intend to make maximum use of encryption technology for communication between the voter's browser and eLect Platform, the email transmitted to the election office by eLect Today, and data stored on eLect Platform. If the voter emails the ballot on their own, we will not be able to provide encryption services.

The state of Utah is committed to continually improving our service to the UOCAVA voter. To facilitate this effort, we intend to make maximum use of the survey tools offered by the eLect Platform to solicit feedback from the UOCAVA voter and identify areas needing improvement.

Many of the features being developed to provide better services to UOCAVA voters will also permit participating counties to provide better service to other communities of interest, particularly the disabled community. We expect to be able to do this without increased costs. Efficiencies gained by using these tools with other communities can help pay for the services to UOCAVA voters.

Risk	Impact	Probability	Mitigation
Election system vendor is unable to meet the needs of the project on schedule.	High	Low	Select a vendor with a strong track record of success at election projects. Manage vendor deliverables with weekly status updates.
Ballot data is finalized with insufficient time to implement online election project.	High	Med	Integrate online election vendor systems with EMS systems for direct transfer of data.
UOCAVA voter registration data changes frequently during the	low	High	Integrate the Federal Post Card Application with the online election system. Schedule voter registration

# **Risk identification and mitigation**

course of the election.	l		database updates in advance.
UOCAVA voters may not have Internet access.	Med	Med	Deploy Mobilized Universal Ballot Access solution for areas with high UOCAVA voter populations but low Internet access.
Tight project timescales mean that delays will lead to missed election go live date.	Med	Med	Front load election project with draft election produced well in advance of actual ballots. Choose vendor with strong track record of success in deploying on- time elections.
Ballots of online election contain errors.	High	Low	Audit vendor's quality assurance process. Ensure all acceptance and Logic and Accuracy tests are completed successfully before election go live date.
Project subject to malicious electronic attack I. A related risk is the inadvertent submission of multiple ballots by the same voter.	Med	Low	Work to security based on DCA approved and other standards. Create a detailed business continuity and disaster recovery plan.
Physical security at data center may be compromised	High	Low	Maintain security management measures compliant with SAS 70 Type II [T11] defined in the data centre service level agreement.
Vendor staff may present a security risk to the project	Med	Low	Undertake security checks on vendor employees to assess risk of possibility of such occurrences. I. How often is employee security data updated? Also, these costs should be the vendor's responsibility and not Utah, as the issue should be addressed via their current client base.
Customer demand for the election services might be larger than anticipated.	Med	Med	Ensure that the technical system is built to cope with the largest possible demands. Automatic monitoring of system configured for notifications 24/7 should system go outside of expected parameters.

Negative news stories about the new voting methods appear in the local press.	Med	Low	Engage with local press during the voter engagement campaign and provide them with positive stories and photo opportunities to education them about benefits.
Turnout is low.	Med	Med	Start voter engagement and promotion of the new services early in the year and build up to a crescendo around voting time in order to encourage voting.
Culture change issues may generate negative feelings in internal staff and stakeholders working on the project.	Med	Low	Start internal promotion of the project as soon as possible after contract agreement. Also provide complete visibility of the service development to end users throughout the process.
Some of the technologies may be new to some election staff	Low	Low	Ensure staff receives relevant training before they employ their skills. Establish skills hierarchy and provide technology briefings that highlight specific issues of importance to the implementation of each pilot.

# **Performance Indicators, Projections, and Performance Measures**

#### Voter registration

• Increased participation - with more readily available electronic access to an online tool, we expect more individuals will be able to register.

• Reduced errors - if voters are able to enter data electronically directly to the database, transcription errors (e.g. from illegible handwriting) will be drastically reduced.

• Cost savings - if voters enter the data themselves, costs for data entry will be reduced. Costs will be further reduced by increased accuracy, reducing the need for follow-up.

• Expect that voter registrations submitted on paper forms (state registration form, FPCA, FWAB) will migrate to online registrations. Forecast that for the 2012 General Election, more voters will register online than use paper.

#### **Ballot delivery**

• Availability – will provide the UOCAVA voter with twenty-four hour, seven day a week access during the 45 day voting period (30 days for Special Elections).

• Ballot Accuracy - voter is assured of receiving the correct ballot styles, contests, and candidates specific to their registered address.

• Increased voter participation - with a user-friendly tool to assist in voting in a timely manner, expect more UOCAVA voters will exercise their right to vote.

• Guaranteed delivery - delivery of ballot guaranteed for UOCAVA voters using eLect Today, whereas ballots sent via postal service may not be delivered due to incorrect addresses, slow service, voter on temporary duty elsewhere, etc.

• Forecast that for the 2012 General Elections the percent of UOCAVA voters obtaining their ballot electronically will double, with that number tripling by 2014 (2010 outreach with survey resulted in nearly doubling percent sent electronically).

#### **Ballot return**

• Availability - will provide the UOCAVA voter access 24/7 during the 45 day voting period (30 days for Special Elections).

• Increased voter participation - with a user-friendly tool to assist in voting in a timely manner, expect more UOCAVA voters will exercise their right to vote.

• Improved timeliness - with the ability for UOCAVA voters to immediately access ballots when they are available, 45 days before the election (30 days for Special elections) rather than waiting for postal service delivery and return, UOCAVA voters will be better able to meet statutory deadlines. This should eliminate "returned too late" ballots for those that use the electronic ballot delivery system.

• Voter errors - since eLect Today will prohibit over-votes and warn about under-votes, voter errors will be virtually eliminated. Ballots completed online will eliminate voter intent issues, as stray marks and non-compliant marking of the ballot will be impossible.

• Ballot tracking - UOCAVA can track receipt and acceptance of their ballot by the elections office via ballot tracking link.

• Online voter pamphlet - UOCAVA voters will have access to comprehensive information about candidates and measures online through links on Everyone Counts' eLect Platform. Currently, UOCAVA voters generally do not receive voter pamphlets because they are frequently not printed before ballots are mailed.

• Figures for accessing the online voter pamphlets and ballot tracking applications are not currently broken out for UOCAVA voters. Everyone Counts will be asked to capture this data for UOCAVA voters accessing these items via their site.

• Forecast that for the 2012 General Elections the gap between the turnout of UOCAVA voters and the general turnout for the election will be cut in half, and cut in half again for the 2014 General Election.

• Forecast that all ballots that are delivered, voted, and returned electronically will be returned on time.

• Forecast that with use, UOCAVA voters will migrate from printing ballots and mailing them back via postal service, to allowing eLect Today email them back on the voter's behalf. No statistical data currently available for a baseline, but counties will track how voters cast their votes and return their ballots (print blank ballot; mark votes electronically, print, mail back; faxed back; emailed back themselves; or eLect Today emails back) after implementation of the project. Goal is that by 2016, 75% of ballots are returned electronically through email.

#### Auto duplication

• Reduced costs - lower staff costs and time as manual effort is reduced. An alternative method for the traditional transcribing of ballot preferences from a voter-submitted 2D barcode to a scannable ballot paper. Future enhancement will focus on scanning 2D barcodes directly to a memory card that is readable by a tabulation system directly. This streamlined, alternate method of ballot reproduction will significantly reduce ballot reproduction costs.

• Better accuracy - the automated duplication of ballots from the 2D bar code will reduce errors that could occur with a manual duplication effort.

• Scalable - auto duplication allows election offices to absorbed increased UOCAVA participation without significantly increasing ballot processing effort and staff. It also allows election offices to expand the capabilities being developed for the UOCAVA community to other communities (e.g. disabled voters) in a cost effective manner.

• There is no baseline figure, as duplication of UOCAVA ballots is not currently needed. Performance in this area will be judged by computing what manual duplication would have cost without auto duplication compared to actual costs using auto duplication.

#### **Ballot challenges**

• Improve resolution rate - for those participating in the electronic process. Ballots will be returned and processed earlier since ballot round trip transit time is greatly reduced, leaving more time to resolve challenges. With email or mobile phone numbers, UOCAVA voters with challenged ballots can be notified electronically in a timely manner, again leaving more time to resolve challenges.

• Lower incident rate - use of the online tool will help reduce challenges in the first place by electronic enforcement of business rules.

• Forecast that the percentage of UOCAVA voters whose ballots are not processed due to unresolved challenges will be cut in half.

• Baseline figures for % of UOCAVA ballots not counted due to unresolved ballot challenges will be at county and state level.

#### Other

• To measure if voters are having problems using the system, we will track the number of individuals that start to use eLect Today, but abandon the process before completion.

• Will also ask Everyone Counts to report and track statistics concerning system reliability and system and application errors encountered.

#### **Financial Management**

The state will receive the funds, procure solutions, and interact with counties and the vendor. A method will be developed to allocate the ongoing maintenance cost after the grant has expired.

#### Milestones

Milestones are shown in the Technical Approach section above.

#### **Current and Pending Project Proposal Submissions**

The state of Utah does not have any current or pending project similar to the one being proposed in this grant proposal.

# Qualifications

#### State of Utah – Key Personnel

**Greg Bell** has served as the Lieutenant Governor of Utah since September 1, 2009. Previously he served in the Leadership of the Utah State Senate having been a state senator representing Utah's 22nd District from January, 2003 until becoming Lieutenant Governor. He was born and raised in Ogden, Utah and graduated from Weber State University and the S.J. Quinney College of Law at the University of Utah. He practiced law at the firms of Kirton & McConkie and later at Fabian & Clendenin specializing in real estate law and has had extensive experience with real estate development, land use and finance. Lieutenant Governor Bell is a past mayor and city councilman of Farmington. He has been the Chair of Envision Utah, an internationally acclaimed collaborative land use and transportation planning organization

**Mark Thomas** currently serves as the Director of Elections for the State of Utah under Lieutenant Governor Greg Bell. Prior to this position, he served as the Office Administrator during Lieutenant Governor Gary Herbert's administration. He is a member of the U.S. Election Assistance Commission's Standards Board. Mr. Thomas is a graduate of the University of Utah and was a Hinckley Institute of Politics intern for U.S. Senator Hatch and the Republican National Committee in Washington, D.C.

#### Vendor Partner – Everyone Counts

Our preferred vendor for this program brings 14 years of experience and proven success of these types of projects. A world leader, Everyone Counts uniquely combines election and technology expertise to deliver the most reliable, transparent, secure election solutions for all voters.

100% U.S. owned and based in San Diego, California, Everyone Counts, Inc., is uniquely positioned to ensure that our election can successfully combine America's oldest values with its newest technologies. Their mission is to help election officials deliver reliable and cost-effective universal access to the ballot. Since 1996, the company's core and primary business has been to provide innovative technology solutions in public and private elections through eLect<sup>™</sup>, Everyone Counts' proprietary family of secure and transparent voting solutions. Their clients have included governments, political parties, labor unions, associations, and private organizations. With local elections expertise on six continents and the highest-integrity end-to-end web-based voting solution in the world, Everyone Counts' elections are accessible, accurate, secure, audit-able, and completely transparent.

#### **Examples of Relevant Projects**

Customer: State of Utah Point of Contact: Mark Thomas, State Election Director Period of Performance: 2010 General Election Description of project: Electronic ballot delivery for Utah 2010 General Election; UOCAVA ballots deployed early and seamlessly, coinciding with existing election processes and FVAP project requirements. Ballot marking solution a "success," says Utah Elections Director Mark Thomas.

**Customer:** Numerous Counties in West Virginia **Point of Contact:** Jackie Harris, Policy Director **Period of Performance:** 2010 General Election

**Description of project:** Using secure credentials, UOCAVA voters could access, mark and cast their ballot online. Ballots were accessed and cast using military-grade encryption technology, and were decrypted on-site at the local election office where each voter's marked ballot was printed to be included in the count. 100% of surveyed voters said they would use the system again and 95% found the system very easy to use.

Customer: El Paso County, Colorado Point of Contact: John Gardner, Chief Deputy and Director of Operations Period of Performance: 2010 General Election Description of project: When El Paso County's assigned vendor for MOVE Act compliance failed to meet their needs for the 2010 General Election, they turned to Everyone Counts. Having provided online ballot marking for El Paso County's 2010 Primary Election, they knew from experience Everyone Counts could deliver. "Everyone Counts saved the day. We called you on Saturday and four days later you had the election up and available for voters." says John Gardner, Chief Deputy and Director of Operations for El Paso County, Colorado.

Customer: Clackamas County, Oregon Point of Contact: Sherry Hall, County Clerk Period of Performance: 2010 General Election

**Description of project:** Clackamas County offered secure transmission of online ballots for UOCAVA voters. "It is an honor to be the first County in Oregon to have the privilege of partnering with Everyone Counts in implementing an online tool for Military/Overseas voters. As Clackamas County Clerk, I want to ensure that the Military/Overseas Vote counts. This system provides a seamless, secure and simplified method to facilitate this process" said Sherry Hall, Clackamas County Clerk.

#### **Everyone Counts Management**

Everyone Counts has built a strong team of professionals who are the best at what they do. Their experience in this innovative area of voting is second to none. Led by the executive team, Everyone Counts is headquartered in San Diego, California and administers elections all over the world.

Lori Steele - Everyone Counts, Inc.- Chief Executive Officer – brings more than 20 years of sound investment management and corporate finance experience to Everyone Counts. In addition, Steele has detailed experience in promoting fair elections and improving voting methods and technologies across the globe. She has built a strong team and led her company to deliver a number of firsts that have enabled innovative voting channels to empower voters, particularly those with access issues and those whose participation rates are low.

Paul DeGregorio - Everyone Counts, Inc.- Chief of Elections – has served in significant policy-making, management, assessment, and training positions for several prominent institutions. In 2006 he served as Chairman of the United States Election Assistance Commission (EAC). As the USA's chief election official, DeGregorio focused on implementing the Help America Vote Act (HAVA) and fostering higher standards for electronic voting, best practices for election officials, and encouraging the use of new technology to serve voters, particularly voters with special needs. From 1993-2003 DeGregorio worked as a technical expert and later as the COO and Executive Vice-President of the International Foundation for Election Systems (IFES). DeGregorio began his career in elections in 1985, when he was appointed Director of Elections for St. Louis County, Missouri.

**Aaron Contorer - Everyone Counts, Inc.**– Chief of Products and Partnerships – spent 10 years at Microsoft where he was an executive on Windows, MSN, and Visual Studio, building

and running product-development teams of up to 200 professionals. He helped lead the conversion of MSN from proprietary to Internet standards, and from his early work on Windows networking he holds several patents in distributed systems and network security. At Microsoft, Contorer also served as Bill Gates' technical advisor.

**Pedro Cortés - Everyone Counts, Inc.- Executive Vice President** – former Pennsylvania Secretary of State (2003 to 2010) leveraged technology to improve operations and services in every facet at the Department of State. In the area of elections, Cortés and his team successfully administered 15 Primary and General Elections. He led the implementation of the federal Help America Vote Act, which has made the electoral process more secure, efficient and accessible to voters. During his tenure, the state revolutionized voting, moving from paper and lever machines to electronic voting systems, and voter registration information that is now housed in a centralized system designed to ensure the accuracy and integrity of the commonwealth's voter registration records maintained by Pennsylvania's 67 counties.

Karen Clakeley – Everyone Counts, Inc.– Vice President of Sales – has more than 20 years progressive experience in building and leading world-class sales, marketing and business development teams for market leading, global companies. Before joining Everyone Counts, Karen led the strategic account planning and client services activities for the nation's largest producer of printed and electronic customer communications. Karen is results driven and moves fluidly from vision and strategy to implementation and successful achievement of desired results.

Mike Joyce – Everyone Counts, Inc.– Senior Program Manager –For over 8 years Mike has managed and scaled Telecommunications professional services, operational, and sales organizations. Overseeing development, deployment and support of over 10,000 Asterisk PBX systems, Mike specializes in building and organizing highly technical teams through a lead-by-example approach. As a former software development and systems engineer, Mike has a deep understanding of Linux / UNIX, Telecom, Networking and Systems Integration. Mike has designed and deployed customized, highly versatile IVR systems for Governments and Businesses Worldwide. Mike also has a deep background in designing and implementing professional, highly technical training and certification programs.

Jared O'Brien - Everyone Counts, Inc.-Lead Elections Administrator - supervises the successful conduct of all phases of public and private sector elections administered by Everyone Counts; he has worked with clients located in the United States, Canada, Australia and the Russian Federation. Jared has overseen the administration of over 50 elections, including public elections in the US States of Hawaii, Washington, and West Virginia that utilized Everyone Counts' eLect software to provide better voting solutions for electors with disabilities and military and overseas electors. In addition to overseeing the elections conducted by Everyone Counts, Jared brings over 4 years of project management experience. He is a graduate of the University of Southern California.

**Nick Coudsy - Program Manager -** Nick has 15 years of experience in U.S. public sector elections and is a certified Project Management Professional (PMP). He has worked for many years as an election administrator and as the director of training for Los Angeles County, the

largest electoral jurisdiction in the USA; and, for Contra Costa County, California. Nick, who is an election hardware and software specialist, was also a Project Manager for Premier Election Solutions for three years, focusing on serving their California and Washington State clients, particularly on the implementation of new voting systems and certification. Nick is an alumnus of Loyola Marymount University, and has performed graduate work at the H. John Heinz III School of Public Policy at Carnegie Mellon University.

# **Budget Proposal**

# A. Direct Labor

- B. Administrative and clerical labor
- C. Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.)

# D. Travel: \$7,000

- Two trips for 2 to Washington, DC for program review/reporting meeting \$4,000
- One trips for 2 to San Diego, CA for technical consultation, design review, etc. with vendor \$3,000

# E. Subcontracts/sub awards

Item	Cost	Frequency	Total
<ul> <li>Software Licensing Fees for Utah's UOCAVA Voters</li> <li>online ballot marking</li> <li>automated ballot remaking</li> <li>help desk</li> </ul>	\$145,000	One Time Fee	\$145,000
Election Administration Fee: Election Configuration and Ballot Build	\$6,000	Per Election, Per County 2012: 1 per county @15 counties	\$90,000
eLect Administration Wizard Customization, Activation, Testing Configuration, and Integration	\$110,000	One Time Will be readied for 2012 General	\$110,000

		Election and replaces per election fees above for federal, state and municipal elections	
FPCA Integration w/ County VR database	\$25,000	One time	\$25,000
Ballot on Demand Software and Hardware (see notes)	\$30,600	Per unit – 4 units requested	\$122,400
Mobile Kiosks	\$4,000	Per Unit	\$8,000
Email and SMS messaging to voters. Outreach solutions	See notes on proposed activity	Per Election	\$25,000

**Budget** Total:

\$532,400

# **State of Vermont**

# Office of the Secretary of State, Elections Division

Response to Defense Human Resources Activity Federal Voting Assistance Program (FVAP)

# **Volume I Technical Proposal**

- 1.) Catalog of Federal Domestic Assistance Number: 12.217
- 2.) BAA number: H98210-BAA-11- 0001
- 3.) TITLE: Expand UOCAVA voting options utilizing the Vote-by-Phone system
- 4.) CAGE Code: (b)(4)

DUNs Number: (b)(4)

- 5.) Applicant: State of Vermont, Secretary of State
- 6.) Sub-recipients: IVS LLC., BPro Inc., and Overseas Vote Foundation
- 7.) Technical and Administrative/business contact: Kathleen C. Scheele, Elections Director 128 State Street Montpelier, VT 05633-1101 Phone: (802)828-2304 Fax: (802)828-5171 Email: <u>kscheele@sec.state.vt.us</u>
- 8.) Proposed Period of Performance: Award Date through 2012

July 12, 2011

Submitted by:

Kathleen C. Scheele, Director of Elections, Vermont Office of the Secretary of State

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## Volume I: Technical Approach and Justification

## 1.) Executive Summary

This application is submitted by the Vermont Office of the Secretary of State to request funding to modify our existing Vote-by-Telephone ballot delivery system to allow military and overseas voters to cast ballots by telephone; to modify our existing EMS and absentee ballot portal to provide voter id, password, and voting district codes to support the Vote-by-Phone system; and to modify and enhance the Vermont UOCAVA website developed by Overseas Vote Foundation (OVF) to provide more assistance with voter registration and absentee ballot requests, voter education and instructions for the Vote-by-Phone system, and expanded data collection for future planning and reporting. Vermont will modify the existing accessible Vote-by-Phone system to provide greater access to ballot casting for UOCAVA voters in remote locations where the voter has access to a cell phone or land telephone but where there is no access to computers or faxes. This modification of the system for use by military and overseas voters will allow UOCAVA voters to cast ballots right up until the polls close at 7 p.m. on Election Day in Vermont.

Vermont recognizes that UOCAVA voters traditionally have a lower voting percentage than domestic voters. Although the MOVE Act was passed to provide additional ballot transit time, our office continues to receive calls from voters in the week before a federal election from UOCAVA voters who have not received a ballot. The Vote-by-Telephone ballot delivery system will ensure that UOCAVA voters will be able to cast ballots up until the close of polls.

The vendors we have selected for this project are: IVS LLC., BPRO Inc., and the Overseas Vote Foundation (OVF). IVS LLC., will modify the existing Vote-by-Telephone system to allow individual UOCAVA voters to enter a voter ID, password, and voting district code (emailed or provided by telephone by the voter's town or city clerk)to allow the UOCAVA voter to cast a ballot by telephone. BPro Inc. will provide modification to Vermont's EMS system to provide a voter ID, password, and voting district code to IVS LLC., for each voter who makes a request to the town clerk to use the Vote-by-Telephone system. The Overseas Vote Foundation (OVF) will provide voter education, voter outreach, increase measurables and enhance the reporting features of the Vermont UOCAVA website, create a voter confirmation tool, and integrate a mailing list signup for UOCAVA voter to receive additional voter education and voter reminders. More and better statistics will be made available through the OVF website.

The Vote-by-Phone system has been used successfully in Vermont since 2006 from 280 polling places. Modification of this proven system will improve the opportunity for UOCAVA voters to cast a ballot and have it counted from remote locations where fax or computers are not available until the same 7 p.m. deadline in the same manner as voting in person at a polling place.

# Period of Performance

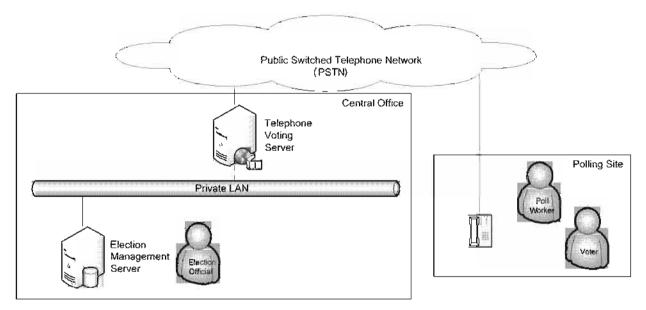
The proposed solution will be completed in time for the 2012 presidential primary election. The project involves one-time costs—once completed, the State of Vermont will be able to utilize the existing Vote-by-Phone system to continue to benefit the UOCAVA voters in all subsequent years without additional cost as it will become part of the annual maintenance contract.

# 2.) Goals and Objectives

After a review of available options, Vermont has determined that modifying our existing Election Management System, our existing Vote-by-Phone system, and our existing UOCAVA website interface is the best plan to increase successful return of absentee ballots prior to the deadline and to provide improved forms and instructions for voter registration and absentee ballot requests. IVS, Llc., BPRO, Inc., and Overseas Vote Foundation (OVF) offer proven and reliable solutions that meet MOVE Act requirements, and are calculated to increase successful voter registrations, absentee ballot requests, successful ballot return in time for counting, and better statistical reports to guide future decisions for greater improvements.

# History: Current Accessible Voting Solution and Current Voter registration, voter education, and statistical report generating UOCAVA website

Since 2006, the State of Vermont has been using the Inspire Vote-by-Phone system developed by IVS, LLC. It's a unique solution designed to help election officials meet the accessible voting requirements as defined by the Help America Vote Act (HAVA). The Inspire Vote-by-Phone is an IVR (interactive voice response) system consisting of one or many Telephone Voting Servers installed at a central location. These servers answer phone calls automatically and require no human intervention except for opening and closing the polls.



With the Inspire Vote-by-Phone system, each polling place would require only a regular telephone instead of specialized computers, making it much easier to train poll-workers. The disabled voters would still go to the polling places as usual, but instead of using specialized voting equipment, they would use the designated telephone to vote.

Security

First, the system itself has no connection to the internet or any other data network, and thus, provides no gateway for any cyber attacks. The only possible inputs from the outside world are DTMF tones, the distinct sounds generated by the telephone when its buttons are pressed. Second, each vote cast by phone must go through several levels of authentication: (a) the voters who vote by phone must go through the same sign-in

process at the polling places like all other voters who vote in person, (b) the voting calls must be made from an authorized phone, and (c) the poll worker who starts the phone call must provide the appropriate poll worker ID and ballot ID for his or her polling place. Third, the system provides a monitoring system that would enable the election officials at the office of the Secretary of State to detect suspicious behaviors by monitoring the length of each voting call and the number of failed attempts from each caller ID.

• Reliability and Voter-Verifiability

After a voter completes ballot selections, the system produces a TIF document representing the voted ballot. This TIF document is automatically read back by an independent program and played back as audio to the voter for verification. First, the verification ensures that a human readable document with the voter's selections has been successfully created for the vote cast. Second, it provides the blind and visually-impaired voters a way to "review" the voted ballot without assistance prior to casting the ballot.

Preview and Practice

The patented Preview-and-Practice feature allows the voters to use any touchtone telephone prior to Election Day to learn about their actual ballot using the same simple ballot navigation that is used on Election Day. This unique feature makes it much easier for all voters to become familiar with the contests and candidates on their actual ballot. The service greatly improves the election experience for all voters and decreases the amount of time disabled voters would need to cast ballot on Election Day.

The Vermont UOCAVA voter website was created by Overseas Vote Foundation to provide 24/7 voter assistance with voter registration, absentee ballot requests, and education about the new alternative of Vote-by-Phone, and data collection. This grant will provide improvements to voter registration tracking to reduce failure rates for submission by mail (Vermont requires a hard copy with signature); provide information and links to Vote-by Phone procedures; development of an email list to remind voters of deadlines, the Vote-by-Phone alternative and other outreach to voters; enlarged and enhanced data collection and reports through a backend reporting dashboard, and a post project evaluation and report to the state and FVAP.

The goals of this project are to increase UOCAVA voters' participation in actual ballot casting and to gather comprehensive data detailing UOCAVA voter activities. More specifically:

Develop and integrate the IVS Vote-by-Phone system with existing voter registration, EMS, and absentee ballot database systems to provide individual use of Vote-by-Phone technology for our UOCAVA voters; and

Provide voter awareness and instructions for the new Vote-by-Phone alternative along with data tools to capture comprehensive statistics for UOCAVA voter registration, absentee ballot request, and ballot casting for each election cycle.

Key objectives include: Improve ballot access for UOCAVA voters through the existing Voteby-Phone system while allowing local election officials to use the existing absentee ballot portal (developed to comply with the MOVE ACT) to provide access passwords and voting district codes to UOCAVA voters; Provide an overall long term cost-effective solution for UOCAVA voters; and Provide analytical information regarding voter use of the system. A Reliable, Proven System: Our three vendors and their proposed systems have been used in Vermont and other states and will simply be modified to allow use of the Vote-by-Phone system by any UOCAVA voter with access to a regular touchtone telephone.

# Proposed UOCAVA Absentee Ballot Vote-by-Phone

A Reliable, Proven System: Our three vendors and their proposed systems have been used in Vermont and other states and will simply be modified to allow use of the Vote-by-Phone system by any UOCAVA voter with access to a regular touchtone telephone.

The system is a voter ballot marking and delivery system with the following modifications:

- Each UOCAVA voter will be provided with a unique voter 1D, a personal password, and the ballot ID that identifies his or her ballot format;
- The UOCAVA voters will use a regular telephone of their choice to call the system and go through the user authentication process using the personal information described above. Once successfully logged in, the UOCAVA voters will proceed to cast their ballots the same way other voters who use the Vote-by-Phone system that is available at every polling place; and
- After a voter has successfully cast his or her ballot, he or she will be prevented from calling back in to vote again.

## Improve the Voting Experience for Our Voters

Vote-by-Phone offers a variety of features and functions that directly improve voters' balloting experience. Almost all voters are experienced users of a telephone while not all voters are comfortable with a computer. This is one of the reasons that the Vermont Advisory Council recommended the Vote-by-Telephone system to meet the accessibility requirements of the Help America Vote Act. By providing an easy to use telephone system with practice and preview, voters can access their ballot at their convenience—from any regular touchtone telephone.

# Reduce the Failure Rates of UOCAVA Voters

This proposal has the goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas of focus are: Ballot Delivery, Ballot Return, improved voter registration assistance, improved education and outreach to UOCAVA voters to alert them to the new alternative to Vote-by-Phone and to collect better statistical data to guide future enhancements to the systems.

Historically, the biggest challenge in UOCAVA participation is slow ballot delivery and return. This grant will enable us to deliver a new technology to meet our goal of eliminating the gap between our domestic absentee and UOCAVA voters.

#### Save on Costs and Overhead

The decision to extend the Vote-by-Telephone system to UOCAVA voters, to assist voters with voter registration and absentee ballot requests, and to collect better statistical data to guide future enhancements builds upon the strengths of three existing contractors and greatly reduces costs compared to developing a new system from scratch. Vermont will not need to acquire additional IT personnel, purchase or maintain any server equipment, or develop a new application.

# **UOCAVA Improvement Projections**

We project that by extending existing technology, Vermont will offer an additional process to speed the ballot delivery, ballot marking and ballot return for UOCAVA voters. We project that:

- Ballot return rate will improve significantly for military and overseas voters who fail to request a ballot at least 45 days before the election;
- UOCAVA voter participation rate will increase;
- Percent of ballots delivered to ballots returned before the deadline will increase;
- Voter confirmation using existing ballot tracking will increase;
- UOCAVA statistical reporting will dramatically improve; and
- Town staff time complying with the new MOVE Act requirements will decrease.

Ballot return rates are estimated to be similar to the national ballot return rates of 91% for general population and 67% for UOCAVA voters. The key metric is to improve the ballot return rate for UOCAVA voters who request ballots later than 45 days before the 2012 election and continue to reduce the gap between UOCAVA voters and domestic voters in all future elections.

# - Online Voter Registration Assistance

The existing Overseas Vote Foundation website (OVF) system features instructions and an online form for a voter to electronically complete, then print and mail to the local town or city clerk. The OVF will be adding additional voter instructions, prompts and alerts along with enhanced data tracking to assist voters with timely submission of the application and understanding the options for absentee ballot marking and ballot return.

# Reduce Failure Rates by Greater Real-time Visibility into the Voting Process [Factor 5 - Innovation]

When a voter generates a registration/ballot request form using our online wizard, the voter's application can not be moved into the voter registration database and identified as active until we have reconciled the form with a signed original paper form received in the mail – at the town level. *[Factors 1, 2, 3 – Significance, Sustainable, Impact]* 

Past experience shows that many voters create their registration/ballot request form online, but fail to complete the steps of printing, signing and mailing the completed form to their town clerk. Insight into the percentage of voters that "fall out" would allow Vermont to take pro-active measures to make a difference in completion rates. *[Factors 1 and 3 – Significance, Impact]* 

We propose to take the voter records, as they are created online with the voter registration wizard and move them into a central "pending" location that can be accessed by the local jurisdiction. When the voter's signed original form is received, the voter record will be marked online as authenticated, and released into the voter registration system database. Note that the printed forms will have an indication as to whether they were generated using our online wizard system.

As a measure to reduce failure rates, *[Factor 1 - Significance]* OVF set up an alert system. At predetermined time intervals, a list of voters whose records are more than 2 weeks old but not

authenticated will be generated and an email sent to alert them that the form was not received. <u>Data Aspects</u>: A new insight *[Factor 5 - Innovation]* can be gained from this innovative "pending" file capture system. One will be able to observe voter behavior, i.e. the relationship between voter intent to register and whether they follow-through on printing and posting the registration request form or not. This will be the first time that such a precise level of visibility is gained. With this an assessment of the factors that affect completion of the process can be made.

**E-Mail List**: Build Awareness of New Vote-by-Phone Alternative and Outreach to UOCAVA Voters

Reminding voters to take action at crucial times during an Election Year will support growth in successful participation. Election officials post notices looming deadlines, but have not had a way to directly inform UOCAVA voters. *[Factor 1 - Significance]* 

OVF's voter registration wizard will be modified to create a UOCAVA voter mailing list to support a pro-active communications program. *[Factor 1 - Significance]* OVF will automate the collection of email addresses for voters who opt-in and integrate that list with an online mail system designed for mass mailings. Vermont can then conduct regular informational online mailings to remind UOCAVA voters of important deadlines, registration requirements, the new Vote-by-Telephone alternative and any other key information. *[Factor 3 - Impact]* 

<u>Data Aspect</u>: The mailing list will generate the percentage of voters that are interested in a closer link to the state office for voting information. We will be able to track the success of any mailer sent to provide insight into the value of each form of outreach.

- Vermont Ballot Tracking Portal

UOCAVA voters may go to our existing absentee ballot portal website to monitor the status of their ballot. We include multiple tracking dates in our profile. Absentee ballot request, ballot access, and returned ballot dates are tracking dates that are displayed to the voter.

# - Accessibility Qualifications

The Vote-by-Telephone system meets the requirements of the Help America Vote Act of 2002 for accessibility by individuals with disabilities.

# - Reporting

The existing absentee ballot portal tracks voter events to offer a number of statistical reports. The Overseas Voter Foundation website and dashboard will be modified under this grant to allow a quick view of the number of visitors and to collect other statistics for our jurisdiction. Examples of some of the reports proposed enhanced reports: Number of visitors to Vermont's OVF UOCAVA voter website; Number of ballot codes and passwords requested; Ballot Delivery method usage statistics; and Customized reports derived from all three systems data collection.

OVF will supply a backend Reporting Dashboard system, which provides real-time access to voter registration data and the opportunity to perform cross tabulation of aggregate data. A new interface will allow Vermont to define and schedule regular reports. This will assure better data tracking and allow for timely, pro-active outreach. The complete voter data record can be extracted from the database and used in reporting. Vermont will gain a demographic view of voters including, military or civilian, age, gender, country of residence, voting history, etc. Tracking voter demographics is essential as these factors may act as intervening variables which impact a voter's success during the voting process.

These enhancements will provide greater analysis of voter data that Vermont or FVAP could use to compare to other jurisdictions using the OVF UOCAVA website. *[Factor 4 - Strategic Approach]* 

#### - Ballot Delivery

If the Vote-by-Phone system is extended to UOCAVA voters in Vermont, the voter will have another choice to cast a vote using any touchtone telephone in addition to by mail or by fax.

## - Protect our voter's privacy and information

Our existing vendors and sub-recipients understand that the security of voter information and election data is critical. The Vote-by-Telephone system has been used securely and successfully in four New England states since 2006.

## Technical Justifications

Technical Justifications for the proposed extension of our three systems are:

Telephone Voting Guarantees Ballot Delivery: The advantage of the proposed telephone voting solution is that the voted ballots are immediately in the custody of the State's election officials and guaranteed to be counted. Telephone voting has had an excellent track record in Vermont and several other states since 2006. The generation of a PDF document from the voter's choices over the telephone is a proven process and will remain unchanged with the proposed solution. Telephone Is Widely Available: The telephone is widely available throughout the world. The same standard keys (0-9, \*, #) are available on telephone keypads everywhere, so the audio voting instructions do not need to be customized to the country where the UOCAVA voters live. Also for military personnel in a remote desert, a rugged mountain, or aboard a battleship, the telephone is an important means to deliver the voted ballots up until the close of polls. Telephone Voting Is Safe: Telephone voting is based on audio. The only kind of input to the system is DTMF tones generated by the phone, and they are also audible sounds. This means any attempt to interfere with the voting process will be heard by the voter holding the telephone. Another feature is that, due to the underlying technology, an illegitimate phone call is far more traceable than any other media, whether it's the internet or even regular postal mail. Telephone Voting Is Accessible: Vermont and other states have successfully adopted telephone voting as the solution for the federal requirements for accessible voting. The device is familiar by any voter with disability. For a visually impaired voter, the telephone may be the only device that connects them to the rest of the world. In fact, the telephone voting system in use in Vermont was designed with input from advocacy organizations for the blind.

<u>Telephone Voting Supports Effective Voter Training</u>: As explained above, the Preview-and-Practice feature provides an excellent way for the voters to (1) preview the races and questions on their ballots long before the polls are open, and (2) train themselves on how to use the system to vote.

<u>Proposed Solution Is Cost Effective:</u> Vermont's proposal takes advantage of an existing system and is very cost-effective as a long term solution for UOCAVA voters. First, the changes needed to implement the proposed solution are very simple compared to the original development of the Vote-by-Phone system. Second, the proposed solution requires no additional operating cost in the future years; it's already paid for as a mandated accessible voting solution.

# Improved Services to UOCAVA Voters

The Vermont proposal provides the following benefits to UOCAVA voters: <u>The Voted Ballots Will Be Counted</u>: As soon as the UOCAVA voters finish voting and hang up the phone, their voted ballots are immediately in the custody of the State election officials. The documents representing the voted ballots are then faxed or emailed, to the local jurisdiction. <u>The Window of Voting Will Be Maximized</u>: The UOCAVA voters will be able to cast their votes throughout the entire election season. On Election Day, the voters will be able to cast their ballots as long as they call in prior to the closing of the polls at 7 p.m.. Effectively, the proposed solution enables the UOCAVA voters to enjoy the same rights and privileges as if they are home. <u>The Voting Method Will Be Accessible</u>: Accessible voting is provided to UOCAVA voters as an inherent feature of the system. Many overseas voters may have visual impairment or other disabilities, and this system provides a way for them to cast ballots independently and privately.

# 3.) Schedule and Milestones

*Work Requirements:* The proposal requires the following changes in the software modules:

<u>The EMS Software Modification:</u> BPRO, Inc. will modify the EMS software to support the management of the UOCAVA voters' personal information, including the issuance of voter ID and passwords. The EMS will also automatically transfer the voter data to the Telephone Voting Server software for processing.

<u>The Telephone Voting Server Software Modifications:</u> IVS, LLC. will modify the Telephone Voting Server software to accomplish the following: Receive and process updated voter information from the EMS; Implement the appropriate voter authentication to allow the legitimate voters to vote; Prevent the same voter from voting a second time during the same election; Transmit the documents representing the voted ballots to the appropriate towns or cities; and Implement the required reports specified later in this technical proposal.

<u>The Vermont UOCAVA voter website modifications:</u> Overseas Vote Foundation will modify and add features to the Vermont UOCAVA voter website to improve assistance to voters for voter registration and absentee ballot requests; to inform and educate voters regarding the new alternative to cast ballots by the Vote-by-Phone system; to create email broadcast mailing lists of UOCAVA voters so Vermont can send alerts to voters; and to increase/ enhance the data collection to provide better data and reports for Vermont to plan future improvements.

# **Time Schedule and Milestones**

- 08/15/2011 Project starts (date subject to change dependent upon date of grant award)
- 09/15/2011 Completion of detailed Requirement Specifications
- 09/30/2011 Completion of detailed Design Specifications
- 10/15/2011 Completion of Acceptance Testing Criteria
- 11/15/2011 Completion of EMS changes
- 11/30/2011 Completion of Telephone Voting Server changes
- 01/01/2012 Completion of testing and debugging

- 01/15/2012 Completion of mock election and acceptance testing
- 01/21-03/06/2012 Use of extended Vote-by-Telephone system for Presidential Primary
- 04/30/2012 Statistical reports from extended EMS system, extended IVS system, existing absentee ballot portal, and extended OVF UOCAVA voter website
- 07/2012-11/6/2012 Use of modified systems for August Primary and September General election with extended statistical reporting
- 012/30/2012 Statistical reporting completed and Implementation Project ends

Requirements Gathering for Detailed Specifications (By 9/15/2011 as shown above): Setup working group sessions to document our business and technical requirements; Identify election file import requirements; Identify onscreen instruction requirements; Identify user roles and associated permissions for the IVS extended system; Identify Return Ballot processes requirements; and Identify Acceptance Testing Criteria.

Detailed design specifications, development of acceptance testing, (both by 10/15/2011) and final configuration modifications completed by 11/15 for BPro, 11/30 for IVS and 1/30/2012 for OVF): Analyze results from requirements gathering and determine configuration; Configure EMS system and absentee ballot portal to add password and voting district code requirements to be used with IVS system; Configure IVS system to accept individual passwords, voting district codes, and affirmation on Certificate of Absentee voter; Setup user roles and permissions;; and Create voter outreach information, additional statistical reports, and new voter prompts and reminders for the OVF UOCAVA voter website.

The testing phase will consist of performing the following activities (By 01/15/2011: Vermont will set up a mock election to test extended systems with town clerk volunteers; Vermont and its vendor sub-recipients will establish acceptance testing procedures to ensure that the requirements identified in the requirements phase are satisfied; and Perform remediation configuration activities on the systems to address any issues/problems uncovered during the pilot test exercise.

# 4.) Reports

This grant will provide the following reporting capabilities:

UOCAVA Analysis to measures the rate of improvement for each of the following: Increased Voter Registration based upon improvements to OVF UOCAVA voter website; Ballot Delivery; Ballot Return; Voter time spent on the OVF website; Voter Access by Geography; Voter Access by option selected for delivery and return (Use of Vote-by-Phone system compared to mail, fax, and email delivery)

# Reporting

The existing absentee ballot portal tracks voter events to offer a number of statistical reports. The Overseas Voter Foundation website and dashboard will be modified under this grant to allow a quick view of the number of visitors and to collect other statistics for our jurisdiction. Examples of some of the reports proposed enhanced reports: Number of visitors to Vermont's OVF UOCAVA voter website; Number of ballot codes and passwords requested; Ballot Delivery method usage statistics; and Customized reports derived from all three systems data collection.

# Data Collection – Reporting Dashboard Enhancements [Factor 2 and 5 – Sustainable and Innovative]

OVF will supply a backend Reporting Dashboard system, which provides real-time access to voter registration data and the opportunity to perform cross tabulation of aggregate data. A new interface will be developed to allow Vermont to define and schedule regular reports. This will assure better data tracking and allow for timely, pro-active outreach.

The complete voter data record can be extracted from the database and used in reporting. Vermont will gain a demographic view of voters including, military or civilian, age, gender, country of residence, voting history, etc. Tracking voter demographics is essential as these factors may act as intervening variables which impact a voter's success during the voting process. These enhancements will provide greater analysis of voter data and election process data that we, others, or FVAP could use to compare to other jurisdictions of similar profile. *[Factor 4 - Strategic Approach]* 

# *Post Project Evaluation and Report--Election Report on Voter Experience in the 2012 General Election*

This report will analyze the overall success of the project. It will provide the final statistics on website usage by voters and use of the Vote-by-Phone ballot marking and return system. It will also contain macro-level data provided including:

- Number of registration/ballot requests received
- Number of individuals who created a form but did not send it in
- Number of UOCAVA ballots sent out (by type of voter)
- Number of UOCAVA ballots returned (by type of voter)
- Number of UOCAVA voter ballots counted,
- A breakdown of the reasons for ballot rejection including: ballots not received in time, not received at all, and those ballots that were "spoiled."

Using these numbers, Vermont will be able to calculate ballot return rates and ballot rejection rates to serve as benchmarks in future research. Vermont will evaluate the success of program implementation by comparing the outcomes of the state with results from the 2008 election.

#### Programmatic and Financial Progress Reports

*Development Phase Reports:* At the completion of each development phase the State of Vermont will submit a written report detailing the activities performed in support of the completion of the phase and a description of the resulting deliverables.

Financial Progress Report: The State of Vermont will comply with 32 CFR 33.41 and submit SF 425 financial progress reports reflecting quarterly status within 30 days following the end of each reporting period. Reports shall reflect accurately the results of financial transactions, disclose all essential financial data for the period covered, and contain such other information as bears directly on the financial operations pertaining to the grant. Financial data in each report will be taken directly from accounting records and supporting documentation will be maintained and available for review at the Vermont office of the Secretary of State.

#### Management Approach:

Our management approach is to have experienced business requirements staff work with three existing and experienced vendors to provide well-defined project phases that include the development of requirements, architectural design, detailed software design, system testing, and release cycles.

Kathleen C. Scheele and Katie Lane-Karnas are Vermont employees who were key staff in the development of the three existing database and website systems that will be modified to extend usage of the Vote-by-Phone system to UOCAVA voters. The staff of the state and staff of these vendors all have over two years of experience working to deliver the existing systems on time and within budget. This prior experience will allow streamlined communications between the state and vendors.

The scope of this grant request is very focused to do two things: develop an additional tool (vote-by-phone) allowing UOCAVA voters to cast a ballot on election day from remote locations and to develop additional statistical reports to provide better metrics for this improvement and future improvements to benefit and assist UOCAVA voters. The beauty of the Vermont proposal is in its simplicity—we will expand and add a very timely ballot delivery and ballot return option so that a UOCAVA voter can cast a vote as late as a minute before the polls close at 7 pm on Election Day and we will be able to measure usage of this system and the impact of other UOCAVA website outreach improvements encouraging voter registration and timely requests for absentee ballots (45 days before election day).

#### **Eight Criteria Areas**

Vermont's proposal meets the eight criteria areas that FVAP has established to measure and evaluate this new UOCAVA program. Those areas are:

#### Significance/Impact

This Grant Request has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The grant will provide:

- 1. Improvements to the instructions, prompts, and voter outreach on the existing UOCAVA Voter Registration website
- 2. Ballot delivery and simultaneous ballot return through modifications to the existing the Vote-by-Phone system
- 3. Practice and Preview for voters at any time prior to the election, with actual ballots available 45 days prior to the election
- 4. Ballot delivery to remote locations where fax or computers are not available
- 5. Vote-by-Phone ease of use from any regular telephone anywhere for voters including disabled UOCAVA voter who may have difficulty with fax or computer but who are skilled users of regular telephones (this includes voters with developmental disabilities, visual disabilities, and voters with traumatic brain injuries.

Historically, the biggest challenge for the UOCAVA voter population has been in "ballot return". The IVS Vote-by-Phone system will help meet the goal of eliminating the gap between domestic absentee voters and UOCAVA voters in all the key metrics, especially ballot return because a UOCAVA voter will be able to have simultaneous ballot delivery and return up until the 7 pm close of polls on Election Day.

## Strategic goals

Vermont considers the UOCAVA project an opportunity to ease the process of registration and balloting for overseas and military voters.

Key strategic goals for this project are:

Improve ballot access for UOCAVA voters, while at the same time, providing a positive experience for the local election officials.

Provide an overall long term cost-effective solution for future elections.

Provide analytical information regarding the usage of the additional alternatives for ballot casting.

Our hypothesis for this project is:

Addition of Vote-by-Phone technology and website enhancements to increase voter services to: Reduce barriers to UOCAVA voter access resulting in more successful r registration and absentee ballot requests; Increase voter participation by allowing ballots to be cast by Vote-by-Phone right up until the 7 pm deadline on Election Day; Decrease errors that have the potential to disenfranchise.

Additional data collection to: Demonstrate effectiveness of Vote-by-Phone; improved outreach to voters through improvements to the Vermont UOCAVA website; and enable future comparison over time, and provide a solution to other jurisdictions using Vote-by-Phone and the OVF developed UOCAVA voter website.

In summary, our strategy is to offer UOCAVA voters an additional option to use the Vote-by-Telephone which offers a time sensitive opportunity for voters who forget to request absentee ballots in a timely manner; a way for UOCAVA voters with disabilities to have another tool to cast a ballot; and improvements to voter education and outreach on our UOCAVA voter website. The result will be increased voter awareness, more successful completion and submission of registration forms, more successful ballot casting by using the Vote-by-Phone ballot marking and return system, and better tracking of each ballot for all UOCAVA voters.

# Sustainability

Our local town and city elections offices are understaffed and under-resourced. Accordingly, Vermont has designed this project to meet the following criteria:

No costs to local election jurisdictions: The grant will pay for the modification of three existing systems. Once the modifications are completed, the continuing use of the modified systems will be included in the state paid contracts with the vendors;

Once developed and implemented in 2012, the state will negotiate future contracts with the three vendors upon expiration of current contracts to include the continuation of enhancements for UOCAVA voters.

#### Innovation

Vermont has been an innovative pioneer in developing alternatives for voters with disabilities that can now be extended to UOCAVA voters that have access to regular touchtone telephones but who may not have access to or the ability to use fax or computer technologies.

The other states that use Vote-by-Phone may observe Vermont's success in extending the system to UOCAVA voters and may decide to extend systems in other states.

#### Scalability

Scalability, security and stability are key reasons that Vermont selected Vote-by-Phone to comply with the accessibility requirements of the Help America Vote Act of 2002. IVS LLC. has demonstrated the stability and security of its Vote-by-Phone system in multiple elections in 2006, 2008, and 2010 in at least 4 states.

#### Collaboration

A key objective for the Vermont is to offer a seamless, integrated solution for each of the 246 elections jurisdictions in Vermont.

In addition, the success of implementation of this extension to Vote-by-Phone in Vermont to UOCAVA voters and the improvements to the OVF UOCAVA website can be replicated in other states currently under contract with IVS and OVF.

#### Cost Benefit

Vermont has over 440,000 registered voters. The award of this FVAP grant will enable Vermont to deploy comprehensive MOVE Act and UOCAVA improvements to voter registration guidance and ballot delivery and return alternatives for years to come.

We will offer the IVS Vote-by-Phone system to every UOCAVA voter for every future federal election. We expect to continue to use the Vote-by-Phone system for at least the next 6 years (our current contract can be extended 3 more times for two years).

#### Analysis and measurement of current processes

As the MOVE Act underscores, states play a critical role in addressing past problems and providing voting alternatives to UOCAVA voters similar to opportunities for domestic voters.

Vermont's UOCAVA voter population has expanded, due to increases in the number of military personnel, particularly the National Guard, deployed overseas. In order to serve this growing constituency, we have created tools to ensure voter outreach and education including timely requests for absentee ballots through the OVF UOCAVA voter website. These measures include links to the FPCA and the Federal Write-in Absentee Ballot (FWAB) on the website. Additionally, we mail, fax and email ballots to eligible UOCAVA voters.

Local jurisdictions are facing the challenges of meeting the requirements of the MOVE Act, while already overburdened with multiple election duties. We believe our proposed project with OVF will narrow the gap between our domestic and UOCAVA population in areas of voter registration and earlier voter request of absentee ballot materials. We believe our proposed project with BPRO Inc., and IVS LLC. will narrow the gap in ballots returned prior to the close of polls on Election Day. Our key success metrics are to improve the process of successfully

transmitting and receiving (*return rate*) the ballot in time to be accepted and counted and to provide more assistance to voters with registration and requesting of absentee ballots.

#### Identification of each process and the elements that are related to the process

Our UOCAVA voter population has expanded over the last decade. In order to serve this growing constituency, our current process is as follows:

Voters apply to vote as a UOCAVA voter using the OVF website voter application or a downloadable application from the state's website

Once registered and in the system, local town or city clerks currently mail, fax, and/or email a physical ballot to the voter

UOCAVA registered voters who have requested an absentee ballot have the ballot transmitted by the method selected by the voter at least 45 days in advance of an election.

The ballot is returned by the voter, along with the signed affidavit attesting to their validity as a registered, eligible voter.

Faxed ballots are typically duplicated, or transferred by two election officials at the polling place onto a ballot that may be tabulated as directed by Vermont law.

All eligible ballots are processed and submitted for tabulation.

#### Identification of potential risks and mitigating strategies

Vermont's decision to modify three existing systems greatly reduces any risks that would be associated with deploying a new technology. However, any modification to existing systems may encounter limited risks associated with implementation. These risks entail:

Modifications to code in two existing systems may encounter initial "bugs"

Modifications to the OVF website instructions, prompts, reminders, and voter education materials could encounter initial issues

Planned voter outreach through the OVF UOCAVA website and through FVAP may still encounter lack of voter awareness of the new Vote-by-Phone system

In order to mitigate the above listed risks we plan to use the following risk mitigation strategies:

Test pilots will be conducted first with state staff and then in a mock election with town and city clerk volunteers using the new technologies.

Acceptance testing will be used to ensure that the business requirements are satisfied.

Sub-recipient vendors will perform remediation configuration activities to address any issues/problems uncovered during the pilot testing exercises or acceptance testing.

The implementation phase will consist of the following activities:

Execute operational test procedures to ensure the all three systems are functioning properly

Provide state staff access to execute of administrative procedures and to run reports

Provide operational support during an election to ensure the Vote-by-Phone alternative is made available to UOCAVA voters and to insure that the OVF UOCAVA website is providing voter

registration services, absentee ballot request forms, and voter outreach information about the new Vote-by-Phone alternative.

The following general procedure will be used to manage project issues and risks:

Identify and document communications by email between state staff and vendors; Assess impact and prioritize; Assign responsibility; Monitor and report progress; Communicate issue resolution; Vermont has completed projects with each of its three existing vendors on time and within budget.

# Formalization of performance indicators for each process

Vermont will manage and compile reports for our key performance metrics. These metrics include detailed statistical reports on the voter registration, absentee ballot request submissions, balloting activity and return tracking. The existing three systems all track some voter events to offer statistical reports for our jurisdictions. The modifications to the three systems will increase the number of measurables as previously described.

## Justification for the modification to the existing processes

Vermont's key objective is to narrow the gap between domestic ballot return and UOCAVA ballot return by improving voter outreach and education and providing a time sensitive alternative to UOCAVA voters to be able to cast a vote by regular touchtone telephones right up until the close of polls on election day. By adding this choice with the IVS system, our UOCAVA voters will be able to access and mark their ballot by telephone and track the status of their ballot, on our existing absentee ballot portal website. We are confident that adding the Vote-by-Phone alternative will narrow the gap between UOCAVA and domestic voters, while reducing costs for the voter and election officials associated with manual return of a physical ballot. The IVS Vote-by-Phone system will be available to every eligible UOCAVA voter around the world, on-demand. Every touchtone telephone will become a ballot casting tool, delivering the correct ballot to the correct voter, no matter where in the world they live, regardless of physical disabilities.

#### Measurements of performance

Our objective is to continually assess, measure, and track our improvement relating to our UOCAVA population. The technology we have chosen offers an array of reporting tools to ensure we are able to performance measure what we are managing. The reporting tools include, but are not limited to: Number of voters requesting a ballot with selected method for ballot delivery; Number of ballots returned by mail, fax, or telephone; Ballot sent to ballot returned to jurisdiction ratio; Ballot successfully voted by telephone to ballots spoiled by voter ratio; Locality and Region of voter activity; and UOCAVA website enhancement analysis.

A final report will summarize the statistics. This report will be made available to FVAP by March 15, 2013 for the 2012 grant year. The report can be provided in future years.

# 5.) Current and Pending Project Proposal Submissions

We currently have existing contract with the three vendor sub-recipients proposed in this grant project; however, there are no current or pending projects that overlap with this work requirements outlined in this initiative.

As described above, Vermont has an existing IVS contract to provide services and ballot alternatives to domestic voters with disabilities. Vermont can renew this contract for two years for 3 more contract periods. This existing contract has no provision for modifications to the system for use by UOCAVA voters.

Vermont has an existing contract with BPro, Inc. for maintenance of the EMS developed for Vermont I 2010. We are contemplating entering into a contract with BPro, Inc. to add an Election Night Reporting module to the existing EMS that BPro provided to Vermont in 2010. This \$75,000 contract is confined to adding the ability for local town and city clerks to data enter unofficial election night results to the web-based EMS system. This addition was reserved for 2011-12 in order to quickly implement the core module of the EMS system in 2010. This future contract has no provisions for modifications for use by UOCAVA voters.

Vermont has a one year renewable contract with OVF to maintain the UOCAVA website that was developed by OVF prior to the 2008 elections. This contract can be renewed annually upon mutual consent and was most recently renewed for maintenance in June of 2011. The existing contract provides only for maintenance and does not provide for the development of new website instructions, prompts, and reminders to assist voters with voter registration and request for absentee ballots. The existing contract does not provide for voter outreach and education regarding a new Vote-by-Phone alternative for UOCAVA voters. The existing contract does not provide for monitoring and gathering additional statistical data in order to provide the state and FVAP with more measurables to gauge improvements in services for UOCAVA voters.

In summary, we have no current or pending program or proposal for modifications to serve the needs of UOCAVA voters in any of our existing contracts.

# 6.) Qualifications of Vendor sub-recipients

Vermont is pleased to provide the qualifications/ resumes of project staff members from the three existing vendors who have successfully completed projects on time and within budget for us.

#### Resume of Yung Nguyen, founder of IVS, LLC.

(b)(6)

PROFILE: Entrepreneur utilizing advanced technology to solve government related issues.

PROFESSIONAL EXPERIENCE

**IVS, LLC** – Founder and President: 2002 – Present

This voting services company specializes in accessible voting systems and optical scan voting equipment to comply with state and federal requirements.

Key Accomplishments:

- Founded IVS, LLC in 2002 after the 2000 Presidential election recount controversy
- Lead the effort to make all precincts accessible to all voters by creating patent pending technology

• Upon product completion attained \$11M in revenue including 7 statewide projects

APPRISS, INC. – Co-founder: 1994-2000

Provides innovative software-based services that help hundreds of local, state and federal criminal justice agencies serve and protect their citizens.

Key Accomplishments:

- Created VINE, the nations leading patented automated victim notification system.
- Spearheaded growth of Application Service Provider (ASP) from \$200K to \$15M
- Grew the company in 5 years to 100 employees
- Developed new technologies to government, now in use in more than 2000 communities in 46 states and in Canadian provinces.

<u>Electronic Systems USA – Engineering Department Manager</u> 1984-1994 – Provided equipment, controls and services for building security, heating, ventilating and air conditioning.

Key Accomplishments:

- Was continually promoted due to consistent success in software design, project management and innovation.
- Increased energy efficiency and lowered operating costs.
- Managed high profile accounts like the Sears Tower

LacViet-Founder and Chairman- A non-profit program that provides after school and tutoring services to Vietnamese children and seeks to empower immigrant parents who speak limited English to get involved in their children's education.

#### EDUCATION

University of Louisville Speed Scientific School - Master's Degree, Mathematics 1990

University of Louisville Speed Scientific School –Master's Degree, Computer Science 1988

University of Louisville -Bachelor's Degree, Computer Science 1986

AWARDS Ernst & Young Entrepreneur of the Year 1997

Founder's Award from the Advanced Technology Council of Louisville

# Biography of Yung Nguyen: President of IVS LLC.

Yung Nguyen (pron: young when) grew up in Saigon. After the fall of the South Vietnamese government in 1975, Mr. Nguyen endured several years under the harsh political system imposed

by the Communist regime. Mr. Nguyen escaped to the U.S. to pursue the American dream, but the refugee's journey was difficult, dramatic and dangerous.

In 1980, Mr. Nguyen found a Cambodian guide to smuggle him to safe refuge in Thailand. He traveled on foot and bike through the jungles of Cambodia. Mr. Nguyen was the only member of his group to arrive safely in Thailand.

Mr. Nguyen arrived in America with literally nothing, not even shoes on his feet. In 1981, he made his home in Louisville, where his uncle, a former pilot in the South Vietnamese air force, had settled earlier. Mr. Nguyen's first job in this country was washing dishes at a Chinese restaurant in Louisville.

Mr. Nguyen furthered his education while attending Jefferson Community College and the University of Louisville. He earned a bachelor's degree in computer science in 1986, a master's degree in computer science in 1988, and a master's degree in mathematics in 1990. Mr. Nguyen worked for a decade at Electronic Systems USA as a software designer, project manager, and in his last position there as engineering department manager.

In 1993, a young Louisville woman was shot to death by a former boyfriend. He had been jailed for raping and assaulting her weeks before, but was released on bond without her knowledge. When Mr. Nguyen and his business partner, Mike Davis, heard about Mary Byron's murder, they decided to use their technical background to develop an automated computer system to give crime victims access to offender information 24 hours a day and automatically notify them by phone, pager, email, or fax upon an offender's release. Mr. Nguyen invented a patented victim notification technology and co-founded Appriss, Inc, formerly known as the The Vine Company.

In five years, the VINE company grew to 100 employees, who shared the founders' strong sense of purpose—helping victims of crime. They also marketed a new technology concept to governments, now in use in more than 2000 communities in 46 states and in Canadian provinces. Mr. Nguyen and his partner at VINE shared an Ernst & Young 1997 Entrepreneur of the Year Award. Mr. Nguyen also won the 1998 Founder's Award from the Advanced Technology Council of Louisville, and several other honors from the University of Louisville.

After the 2000 presidential election recount controversy in Florida, Mr. Nguyen began to extensively research ways to resolve problems with voting machines. That work developed into his passion to lead the effort to make all precincts accessible to all voters. Mr. Nguyen invented the patent pending voting technology, called Inspire, and founded IVS, in 2002.

IVS, LLC is a voting services company that specializes in accessible voting systems. IVS makes it easy and affordable for states and counties that use optical scan or other non-accessible voting systems to comply with new federal requirements for precinct-level accessibility.

Mr. Nguyen serves on the Board of Directors for Appriss, Inc. He is also a member of the Industrial Advisory Board (IAB) for the Department of Computer Engineering and Computer Science at Speed Scientific School at the University of Louisville. Mr. Nguyen is on the selection committee of the Vogt Innovation Fund. He also serves on the Board of the Community Foundation of Louisville.

Mr. Nguyen is also the Founder and Chairman of Lac Viet, a non-profit program that provides after school and tutoring services to Vietnamese children and seeks to empower immigrant parents who speak limited English to get involved in their children's education. He and his wife, Vu, have three children, and live in Louisville.

End of IVS, Inc.

# **RESUME - Brandon Campea, President/Senior Software Engineer, BPro Inc.**

**EXPERIENCE LEVEL:** Expert

# EMPLOYMENT STATUS WITH BPRO INC

PRESIDENT, BPro Inc, 1/1/2009 - PRESENT.

VICE PRESIDENT, BPro Inc: 10/1/2005-12/31/2008.

SENIOR SOFTWARE ENGINEER, BPro Inc: 5/1/2003-10/1/2005.

SOFTWARE ENGINEER, BPro Inc: 1/28/2001-5/1/2003.

## **QUALIFICATIONS SUMMARY**

SOFTWARE PROFICIENCIES: Expert SQL Server 7.0/2000/2005, ASP.NET, VB.NET, Visual Basic 6, Microsoft Access 2.0/97/2000/2002

#### **KEY PROJECT RESPONSIBILITIES**

Project Leader – facilitate custom software projects from the requirements phase through development and ongoing support; act as liaison between development team and client; model and direct efficient and effective strategies

Software Engineer – work directly with client to produce custom software solutions. Create database structure and design, troubleshooting, debugging and development of training materials and user's manuals.

#### NUMBER OF YEARS EXPERIENCE

9.5 Years.

#### WORK EXPERIENCE SUMMARY

PROJECT MANAGER/SENIOR SOFTWARE ENGINEER- South Dakota Secretary of State: CERS (Central Election Night Reporting System) *System*. 8/2007 - present. Developing a complete online system for the Secretary of State and County Auditors to use track candidate petition filing, ballot certification and creation, election night results reporting, and county and state canvassing. The system will be used for statewide primary, secondary, special and general elections. Designed in ASP.NET, SQL Server 2005, and Crystal Reports XI.

PROJECT MANAGER/SENIOR SOFTWARE ENGINEER- South Dakota Department of Education: *eGrant System*. 12/1/2005-2007. Developed a complete online system for use by education agencies throughout South Dakota to apply and submit grant applications in order to receive federal funding. The system allows education agencies to create an application, answer different types of narrative questions, and submit a budget for over 20 different sections. The system also tracks payments and reimbursements for each agency and integrates with the State's accounting system. Designed in ASP.NET, SQL Server 2000, and Crystal Reports XI.

PROJECT MANAGER/SENIOR SOFTWARE ENGINEER – Montana Board of Crime Control: *National Incident Based Reporting System (NIBRS)*. 2003 to present. Examined an existing NIBRS application and reengineered to increase speed, efficiency, and data integrity. Developed and managed a plan involving software engineers to design, implement, and deploy the application in Visual Basic and .NET that tracks every crime in Montana. The application uses SQL Server 2000 for data storage and Crystal Reports for the reporting tool. The application sends agency and incident details to the FBI for use in nationwide crime statistics. The NIBRS application is certified by the FBI.

PROJECT MANAGER/SENIOR SOFTWARE ENGINEER Engineer – Division of Criminal Investigation: *Forensic Laboratory*. 2003-2006. Analyzed business process then designed, developed, tested and implemented an evidence and examination tracking database used by the forensic laboratory staff. The database tracks the forensic evidence from initial receipt through the examination and the final return of the evidence, generating all the necessary documents used in court trials and records use as well as statistical reports.

SENIOR SOFTWARE ENGINEER – Department of Revenue and Regulation: *TaxMatch*: 2002-2003. Developed an application used to determine tax rates based on customer addresses throughout the state. The application was developed to be used by wireless companies doing business in the state of South Dakota.

SOFTWARE ENGINEER – Division of Criminal Investigation: Sex Offender Registry. 2002-2006. Designed, developed, tested and implemented a sex offender mapping application. The application is installed in Rapid City, SD, and Sioux Falls, SD, and displays an interactive map of each city and the location of the sex offenders. The map can be searched for an address and the sex offenders within a specified radius will be displayed. The list of sex offenders is automatically updated from the state wide registry system.

SOFTWARE ENGINEER - Spokane, WA Police Department. 11/1997-1/2001. Developed sophisticated applications using C, C++, Visual Basic, and Microsoft Access. Managed and maintained a large-scale, complex proprietary Oracle 7.3 Records Management System (RMS) and Computer Aided Dispatch (CAD) system. Designed and developed numerous systems including: GIS Crime Mapping, Crime Statistics, Evidence Tracking, Objective Jail Classification, and Uniform Crime Reporting. Developed and maintained Intranet/Internet site.

# EDUCATION/CERTIFICATIONS

BA, Computer Science, Whitworth College, Spokane, WA

End of BPro, Inc.-next resume begins on page 23

#### Resume of Susan Dzieduszycka-Suinat, President and CEO, Overseas Vote Foundation



#### **Overseas Vote Foundation - Founder and Executive Director, 2005 - present**

Ms. Dzieduszycka-Suinat is President, CEO and cofounder of Overseas Vote Foundation (OVF), <u>www.overseasvotefoundation.org</u>, a nonprofit, nonpartisan organization established in 2005 that helps overseas and military voters participate in federal elections by providing public access to interactive web services. 4.75 million individuals visited OVF's 17 voter services sites in 2008.

Ms. Dzieduszycka-Suinat works for the foundation full-time and manages OVF's strategic planning and operations including technical development and oversight of staffing, research, marketing, and alliance programs. She spearheaded the functional specification, development and launch of the complete suite of OVF Internet-based voter services available online today.

OVF's suite of software applications is the first of its kind within the U.S. and a direct outcome of Ms. Dzieduszycka-Suinat's vision for overseas and military voter services that work within today's security paradigm. Her understanding of the real and practical needs of overseas and military voters coupled with her ability to translate these needs into logical, easily accessed technology solutions is demonstrated in OVF's online presence.

- Management responsibility for OVF strategy and operations:
  - Planning, development, maintenance and support for OVF's seven integrated online voter services, reporting and backend content management systems
  - o Organizational development team building, staffing, monitoring, reporting
  - o Revenue development strategy, grant-writing and applications
  - o Assure appropriate legal review for all programs and activities
  - o Capitol Hill and stakeholder relationship development
  - o Press and promotional program development and implementation
- Key Accomplishments:
  - Built organization including Executive Board (10), Advisory Board (10), Operations Team (13), Regional Volunteer Team (35) and Alliance Partner Program (8).
  - Executed and published four post-election online voter surveys the OVF survey has become a core part of the OVF program and the largest survey of its kind
  - Developed State Hosted Systems program which licenses the OVF voter services suites to seven states, helping to establish a usability standard in UOCAVA services

# The Dream Plan, Marketing Consulting – Founder and Managing Director, 1999 – current

Project management organization for small business entrepreneurs

Key projects include:

 Overseas Vote 2004 Project Initiative: Product Development and Worldwide Marketing Program Manager

Responsible for design, functionality, usability and maintenance of first-ever UOCAVA Internetbased voter registration system and supporting services including:

- Briefed development team and supported product development for accelerated 3week timeline
- Developed project and marketing plans and executed against them to register 80,000 UOCAVA voters in the 12 weeks prior to the 2004 election.
- Staffed and launched Help Desk to support voters directly through Internet-base help desk services answering over 7,000 questions in the 12 week period
- Managed approximately 50 person team in activities including, online promotion, link program, support, help desk, reporting and technical response issues
- Responded personally to all public relations program initiatives and press interviews, and directed marketing communications efforts
- o Designed, promoted and executed events to support communications efforts
- Corporate Identity and Websites and Marketing Development for various firms including:
  - o Grace Advisory venture capitol
  - Eyeshot Elements graphics display system for advertising and promotion
  - Endeavors Technology, secure peer-to-peer networking software technology marketing development in UK and German regions

#### Supporting Experience

#### **International Software Marketing**

Thirteen years in software marketing with UNIX Leader Santa Cruz Operation (SCO)

Key roles included:

- OEM Marketing Manager, Europe, Middle East and Africa responsible for partner marketing program development and execution. Accounts included, Compaq, IBM, Olivetti, Unisys, Siemens and HP
- Director of Marketing, France and Spain responsible for entire marketing mix for regional subsidiary including press and public relations, channel marketing, training program marketing, advertising and promotional marketing activities

- North American Channel Marketing Manager distribution channel marketing program development and execution with key channel partners. Managed 5-person core team.
- Technical Marketing Manager supporting role to key sales staff and marketing development teams
- **Education:** Bachelor of Arts, Environmental Studies, University of California, Santa Cruz; Marketing Program Certification in Organizational Development, Large-Scale Project Management and Marketing, University of California, Berkeley

Citizenship: American

- Languages: Native English, fluent in French and German
- **Other**: Lived overseas for 17 years; currently living in Munich, Germany with husband and two children

And

# DR. CLAIRE M. SMITH—Research Program Director, Overseas Vote Foundation (b)(6)

# **RESEARCH AND ACADEMIC EXPERIENCE**

Overseas Vote Foundation, September 2008 – Present

# Research Program Director

! Oversaw analysis of 2008 and 2010 voter and local election official post-election surveys ! Conducted original research on the impact of state UOCAVA policies on voters and developed the UOCAVA State Policy Index

! Editor and contributor to monthly research newsletter, including articles on indentifying the correct number of UOCAVA voters and evaluating available data sets

! Organized academic panels for UOCAVA Summit 2010 and Summit 2011, including theme development and speaker recruitment

! Prepared materials for research grant proposals for the Carnegie Corporation, Pew Center on the States, Federal Voting Assistance Program, and Election Assistance Commission

! Prepared testimony for congressional hearings, as well as answering questions from congressional staff regarding the impact of policy

! Answered questions from the "Voter Help Desk," communicating to voters around the world **Carl von Ossietzky Universität**, Oldenburg, Germany, 2005 - 2006

# Adjunct Professor, Department of Political Science

! Classes Taught: Federalism in the U.S., Voting and Participation in the U.S., Parties and Organizations in Germany

University of Notre Dame, South Bend, IN, 2000 - 2002

# Teaching Assistant and Research Assistant

! TA for: Introduction to American Politics, Introduction to Comparative Politics MANUSCRIPTS

"It's in the Mail: The Military and Overseas Voting Experience," (with Judith Murray)

Book manuscript in progress "Barriers to Overseas Voting and Satisfaction with the Voting Process," (with Thad Hall) Journal article under review **EDUCATION** University of Notre Dame, South Bend, IN PhD Political Science, May 2005 ! First Field: Comparative Politics; Second Field: American Politics ! Subspecialties: political parties, party systems, federalism, electoral systems ! Dissertation: "Money to Burn: Party Finance and Party Organization in Federal Countries" Dr. Claire M. Smith \* Curriculum Vitae 2 University of Notre Dame, South Bend, IN MA Political Science, January 2002 Radford University, Radford, VA BA Political Science and German (magna cum laude), May 1999 ADDITIONAL CERTIFICATIONS AND QUALIFICATIONS ICPSR Training Program in Quantitative Methods of Social Research, University of Michigan Summer 2000 Cambridge Certificate in English Language Teaching to Adults (CELTA), Hamburg, Germany July 2006 ENGLISH TEACHING EXPERIENCE Bildungswerk Cloppenburg, Cloppenburg, Germany, 2009 Consultant and English Teacher CNC Language Network, Cloppenburg, Germany, 2006-2008 **Owner**, English Teacher inlingua Sprachschule, Oldenburg and Cloppenburg, Germany, 2004 - 2005 English Teacher **CONFERENCE PAPERS** "When No One Can Knock on Your Door: Getting Out The Vote to Overseas Americans." Presented with Paul Herrnson and Michael Hanmer. Annual Meeting of the American Political Science Association, September 2011. "Time to MOVE: Overseas and Military Voter State Policy Innovation." Midwest Political Science Association Conference, April 2011. "Overseas Voter Satisfaction in 2010." Presented with Thad Hall. Midwest Political Science Association Conference, April 2011. "Defending Votes: Legislative Policy and Military Voting." Midwest Political Science Association Conference, April 2010. "It's in the Mail: Surveying UOCAVA Voters and Barriers to Voting." Annual Meeting of the American Political Science Association, September 2009.

"Ask and then Ask Again: Party Finance Laws and the Rise of Fundraising in Canada and the U.S."

Midwest Political Science Association Conference, April 2005.

Dr. Claire M. Smith \* Curriculum Vitae

3

"The Ties that Bind: Party Finance and Party Organization in Canada and the U.S." Northeastern

Political Science Association Conference, November 2004.

"Money to Burn: Party Finance and Party Organization in Germany and Austria." Midwestern Political

Science Association Conference, April 2004.

"Dimensions of Political Finance Legislation in the U.S. States: An Institutional Exploration." Midwestern Political Science Association Conference, April 2002.

"Where's the Party? Federalism and Political Finance in the United States and Germany." Annual

Meeting of the American Political Science Association, August 2001.

"Democracy's Dilemma: The Role of Political Culture in Democratic Consolidation." Presented with

Karrie Koesel at the Midwestern Political Science Association Conference, April 2001. "Adapting Consociationalism: Viable Democratic Structures in Burma." International Studies Association – Midwest Conference, October 2000.

# AWARDS, SCHOLARSHIPS AND FELLOWSHIPS

Kaneb Center Outstanding Graduate Student Teacher Award, University of Notre Dame, April 2002

Outstanding Student of the Year, Radford University, 1999

Kellogg Institute Dissertation Year Fellowship, University of Notre Dame, 2003-2004

Friedrich Ebert Stiftung Dissertation Support, Germany, 2002-2003

Nanovic Institute Dissertation Fellowship, University of Notre Dame, 2002 - 2003

Kellogg Institute Seed Money for Graduate Students, University of Notre Dame, Summer 2002

Downs Summer Training Travel Grant, University of Notre Dame, Summer 2000

Zeta Tau Alpha Foundation Achievement Scholarship, 1999

# PROFESSIONAL MEMBERSHIPS AND SERVICE

American Political Science Association (APSA)

Midwest Political Science Association (MWPSA)

American Citizens Abroad (ACA), Country Contact for Americans in Germany

# ADDITIONAL SKILLS

Foreign Languages German (fluent), French (some spoken)

**REFERENCES AVAILABLE UPON REQUEST** 

# **State of Vermont**

# Office of the Secretary of State, Elections Division

Response to Defense Human Resources Activity Federal Voting Assistance Program (FVAP)

# Volume II Budget Proposal

- 1.) Catalog of Federal Domestic Assistance Number: 12.217
- 2.) BAA number: H98210-BAA-11- 0001
- 3.) TITLE: Expand UOCAVA voting options utilizing the Vote-by-Phone system
- 4.) CAGE Code: (b)(4)

DUNs Number: (b)(4)

- 5.) Applicant: State of Vermont, Secretary of State
- 6.) Sub-recipients: IVS LLC., BPro Inc., and Overseas Vote Foundation
- 7.) Technical and Administrative/business contact: Kathleen C. Scheele, Elections Director 128 State Street Montpelier, VT 05633-1101 Phone: (802)828-2304 Fax: (802)828-5171 Email: <u>kscheele@sec.state.vt.us</u>
- 8.) Proposed Period of Performance: Award Date through 2012

July 12, 2011

Submitted by:

Kathleen C. Scheele, Director of Elections, Vermont Office of the Secretary of State

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#### Volume II

## Volume II

## **BUDGET Proposal**

In addition to the tangible, "dollar certain" return on investment analysis detailed below, we believe that the proposed project will provide substantial intangible return on investment that should be taken into account into determining the justification for this project, including:

- Valuable lessons learned and experience applicable to future voting technology initiatives for UOCAVA voters;
- Creation of another simple to use alternative for UOCAVA voters to cast a ballot by Vote-by-Phone from any location using a regular touchtone telephone
- Improved UOCAVA voter awareness and instructions for use of an alternative method for casting ballots; and,
- Improved UOCAVA voter assistance for voter registration and absentee ballot requests including email reminders;
- Improved statistical reports for use by Vermont and/or FVAP in planning future voter outreach programs; and
- Improved voter satisfaction with the voting process.

#### Itemized Budget:

#### a) Direct Labor for Vermont Office of the Secretary of state:

Director of Elections: Direct rate of \$38.47 per hour

Duties and Responsibilities to include: Supervision of the UOCAVA Project related activities, including, but not limited to: business requirements development with three vendors, approval of milestones, pilot testing, acceptance testing, administrative and in-house set-up activities; and monitoring and reporting.

Elections Administrator II: Direct rate of \$22.19

Duties and Responsibilities to include: Provide assistance to the Director of Elections in the duties outlined above and maintenance of checklists of project requirements with completion dates.

Total Direct Labor for the State of Vermont is \$75,000 to be apportioned between two positions.

#### b) Administrative and clerical labor:

N/A. These are included in the indirect costs in subpart c.

#### c) Fringe Benefits and Indirect Costs (F&A, Overhead, G&A, etc.):

An indirect rate of 24% has been approved by the Elections Assistance Commission for the HAVA 2002 grant funds. We can provide a copy of the memorandum/agreement upon request.

#### d) Travel:

We do not expect any travel to be associated with the completion of the proposal.

#### d) Subcontracts/sub awards:

The vendors we have selected to be sub-recipients or subcontractors for this project are: IVS LIc., BPRO Inc., and the Overseas Vote Foundation (OVF).

**IVS LIC**. will modify the existing Vote-by-Telephone system to allow individual UOCAVA voters to enter a voter ID, password, and voting district code (emailed or provided by telephone by the voter's town or city clerk)to allow the UOCAVA voter to cast a ballot by telephone.

The proposed contract amount for vendor, sub-recipient IVS, LLC is: \$68,000\*

\*This will be increased by \$25,000 to \$93,000 if the state of Maine does not receive a FVAP grant—there are costs savings for development in two states at the same time.

**BPro Inc**. will provide modification to Vermont's EMS system to provide a voter ID, password, and voting district code to IVS Llc for each voter who makes a request to the town clerk to use the Vote-by-Telephone system.

The proposed contract amount for vendor, sub-recipient BPro, Inc.: \$17,000

The **Overseas Vote Foundation** (OVF) will provide voter education, voter outreach, increase measurables and enhance the reporting features of the Vermont UOCAVA website, create a voter confirmation tool, and integrate a mailing list signup for UOCAVA voter to receive additional voter education and voter reminders. More and better statistics will be made available through the OVF website.

The proposed contract for vendor, sub-recipient Overseas Vote Foundation (OVF): \$101, 298

The detailed cost proposals from the three vendors are attached as the last pages of this document.

#### f) Consultants:

No consultants are included in this proposal.

#### g) Materials and Supplies:

No materials or supplies are included except those included in vendor, sub-recipient proposals.

#### h) Other Direct Costs:

The proposed contract amounts shown in subpart e) above for vendor sub-recipients include all other direct costs.

The Vermont voter outreach campaign is included in the Overseas Vote Foundation contract proposal shown above. OVF has considerable experience conducting UOCAVA voter outreach for 7 or 8 states under current contracts for maintenance of the UOCAVA website.

The OVF proposal also includes funding for developing a final report on the project suitable for publication.

#### Summary: Total Grant Request:

TOTAL Grant Request	\$261,000*
Overseas Vote Foundation	<u>\$101,298</u>
Sub-recipients IVS, LLC and Bro, Inc.	\$85,000*
Office of the Secretary of State	\$75,000

\*Total Budget for IVS to be increased by \$25,000 if Maine does not receive an FVAP grant for a total of \$286,000.

# IVS, LLC and BPro, Inc.

# Budget Proposal

# To State of Vermont, Office of the Secretary of State

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Extending Vote-by-Phone to UOCAVA Voters	. 6
Itemized Budget	. 8

This section provides the justifications and money amount for each cost category associated with the proposal. There are 3 major cost categories:

• Extending Vote-by-Phone to UOCAVA voters

#### 1. Extending Vote-by-Phone to UOCAVA Voters

#### Return on Investment

The ultimate purpose of extending Vote-by-Phone to UOCAVA voters is to provide them with an accessible voting method which guarantees the return of their votes.

The State of Vermont has been using Vote-by-Phone successfully since 2006 to meet the requirements of the Help America Vote Act (HAVA). During the voting period, the voters with disabilities in Vermont could use the telephone to vote and, as soon as they hang up the phone, their ballots are in the custody of the Secretary of State's office. Furthermore, a voter with disability could use their own telephone to review the actual ballot and practice voting long before Election Day.

Since the voting device is the ubiquitous telephone, the State believes the Vote-by-Phone service could be extended to UOCAVA to accomplish the following objectives:

- To allow the UOCAVA voters the opportunity to review the races, candidates, and questions on their actual ballots at least 45 days prior to Election Day;
- To allow the UOCAVA voters to vote from anywhere in the world, and as soon as they hang up the phone, their ballots are guaranteed to be in the custody of the State's election officials.
- To provide the UOCAVA voters with the flexibility to cast their vote anytime during the voting period as if they are at home—the UOCAVA voters will have up to the last minute before the polls are closed in Vermont to cast their ballots.
- To provide the State of Vermont with the data necessary for future strategic planning to guarantee that all UOCAVA voters can exercise their voting rights.

#### Cost Justifications

The cost to extend Vote-by-Phone to UOCAVA is ..... This includes (1) \$68,000 payment for IVS, (2) \$17,000 payment for BPRO, and (3) \$... for other expenses.

#### • Payment for IVS (\$68,000)

IVS is the company that developed and is maintaining the Vote-by-Phone system for the State of Vermont. The State believes it's most practical and cost effective for IVS to modify its own software to extend the Vote-by-Phone service to UOCAVA voters.

#### Description of Work

- Designing a communication interface with the EMS system to retrieve vote-byphone registration data;
- Designing a new database to maintain the vote-by-phone registrations and call tracking data;
- Designing a new database to support the delivery of voted ballots to the local election authorities;
- Handling the faxing and/or emailing of the voted ballots to the appropriate local election authorities;
- o Modifying the Preview and Practice call flow to handle UOCAVA voters;
- o Modifying the voting call flow to handle UOCAVA voters;
- o Managing usage tracking data
- o Developing usage reports analysis for different phases of the election process

#### Cost Items

 \$60,000 for Vote-by-Phone software modification. This fee assumes that a similar proposal by the State of Maine, which has some overlapping work with this project, is also approved. If for some reason, the State of Maine does not pursue its project, or its project is not approved, this cost item will be increased by \$25,000.

o \$8,000 for mock election and system rollout support

#### • Payment for BPRO (\$17,000)

BPRO is the company that developed and is maintaining the Election Management System (EMS) currently in use by the State of Vermont. The State believes it's most practical and cost effective for BPRO to modify its own software to provide the necessary support for extending the Vote-by-Phone service to UOCAVA voters.

#### Description of Work

- o Modifying the voter registration database to handle vote-by-phone registration
- o Modifying the web user interface to handle vote-by-phone registration
- o Generating and managing vote-by-phone user passwords
- Establishing a web service for data communication between the EMS and Voteby-Phone systems
- o Developing real-time data reports regarding voter registration

#### Cost Items

- o \$12,000 for EMS software modification.
- o \$5,000 for mock election and system rollout support

#### **Itemized Budget**

#### <u>IVS LLC</u>

Vote-by-Phone software modification Mock election and system rollout support	\$60,000 \$ 8,000	
Subtotal	\$68,000	\$68,000*

\*Add \$25,000 if State of Maine does not receive grant (cost savings if 2 states develop at same time)

#### <u>BPRO</u>

EMS software modification Mock election and system rollout support	\$12,000 \$ 5,000	
Subtotal	\$17,000	\$17,000

#### **Overseas Vote Foundation Budget Proposal**

# To the State of Vermont, Office of the Secretary of State

#### **Budget Development - Vermont**

Cost Estimate

Updated 11 July 2011

Opulied IT Suly 2011		[		COST	BREAK	DOWN	
		<u>(4) Dir</u>					
	Total	<u>Labor</u> Hours	Direct	Admin	Overhead	<u>(2)</u>	(3) Direct
Development Items	Cost	Est.	Labor	5%	5%	Travel	Costs
Website Interface Design							
Upgrade	\$5,000	10 - 15	\$1,000	\$250	\$250	\$0	\$3,500
		130 -					
Post Project Evaluation Report	\$25,000	150	\$22,500	\$1,250	\$1,250	\$0	
Server - hosting/bandwidth							
contribution	\$5,000	10 - 15	\$1,000	\$250	\$250	\$0	\$3,500
Reporting Dashboard							
Enhancements	\$12,727	10 - 15	\$1,000	\$636	\$636	\$1,500	\$8,954
Pending "Signed Reg Form"							
Database and Voter Confirmation Tool	\$28,571	25 - 40	\$2,500	\$1,429	\$1,429	\$0	\$23,214
Mailing List Signup and							
Integration	<u>\$10,000</u>	10 - 15	<u>\$1,000</u>	\$500	\$500	<u>\$0</u>	\$8,000
Subtotal by project definition	\$86,298		\$29,000	\$4,315	\$4,315	\$1,500	\$47,168
Election Year 2012 Licensing	<u>\$15,000</u>						
Total Estimate for first years							

-	
development and licensing	\$101,298

(2) Travel - one visit for staff training session 3) Direct costs in column N are programming/technical development costs (4) Direct "labor" is estimated OVF time



Commonwealth of Virginia State Board of Elections

Response to the

Defense Human Resources Activity - Federal Voting Assistance Program's Electronic Absentee Systems for Elections Grants for States, Territories and Localities

Volume I - Technical Proposal

Title:

Virginia Comprehensive UOCAVA Voter Life-Cycle Portal Project and the Evaluation of Technology Options for Advanced UOCAVA Solutions

*CFDA*: 12,217 *BAA*: HQ0034-FVAP-11-BAA-0001 *CAGE*: (b)(4) *DUNS*: (b)(4)

Contractors and Sub Recipients: Microsoft Corporation Democracy Live Open Source Digital Voting Foundation Scytl ES&S

Proposed Period of Performance: August 2011 – July 2016

Submitted by: Matthew Davis Submitted on: July 13, 2011

Technical Contact: Matthew Davis 1100 Bank Street, 1<sup>st</sup> Floor Richmond, VA 23219 t: 804-864-8905 f: 804-786-2045 matthew.davis@sbe.virginia.gov

Administrative Contact: Sharon Woo 1100 Bank Street, 1<sup>st</sup> Floor Richmond, VA 23219 t: 804-864-8933 f: 804-786-2045 sharon.woo@sbe.virginia.gov

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#### **Technical Approach and Justification**

#### 1. Executive Summary

This application is presented by the Commonwealth of Virginia (VA) State Board of Elections (SBE) to request funding in support of our acquisition and implementation of a comprehensive set of Web-delivered voter services for the complete Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) voter life-cycle, from voter registration and ballot request through balloting and ballot tracking. The complete solution set will consist of web-based electronic ballot delivery system for our military and overseas citizens, supported by a Voter Portal service for registration and eligibility assistance, and underlying technology for consolidation and analytics of usage data both from voter services and from existing VA election systems. In addition, we will evaluate additional technology options for UOCAVA voters. Our goal is to provide greater access to online tools in order to make the voting process easier to qualify for, simpler to maintain eligibility for, and easier and simpler for our UOCAVA voters to use. In the course of doing so, we also expect to make it easier for the SBE and Federal Voting Assistance Program (FVAP) to extract UOCAVA reporting data and allow stakeholders to receive a complete view of UOCAVA voter activity in any election cycle, both via reporting functions and via direct access to consolidated data published in common data formats.

The vendor we have selected for the voter life-cycle portion of the project is Microsoft Corporation (MS), in partnership with Democracy Live and the Open Source Digital Voting Foundation (OSDV). The MS-Democracy Live-OSDV team will extend and integrate existing technologies for online identification of VA voters, for classification of voters under VA election law, for voter registration and other forms of UOCAVA eligibility assistance, and for logging of voter usage of online voter services and voter registration record information.

The Voter Portal technology and the Analytics technology were developed by OSDV, and include (a) voter registration forms assistance developed on behalf of RockTheVote, (b) VA-specific voter eligibility assistance developed in conjunction with Credence Solutions for the SBE with funding from FVAP, and (c) voter record request common data formats developed in collaboration with Overseas Voting Foundation and submitted to the IEEE 1622 working group as the basis for data standards. These technologies will be integrated with existing VA systems and extended to support VA's specific requirements for electronic ballot delivery service.

VA will also be working with Scytl and ES&S to advance the body of evidence for the use of assistive and secure technologies for elections. This partnership will enable VA to participate in any FVAP demonstrative projects with deployed VA military units as well as pilot projects with VA or overseas military hospitals to enable wounded veterans to complete their own ballots, regardless of their injuries. In addition, VA and Scytl will work to develop documentation and evidence to assist VA in obtaining legislative approval to engage with any FVAP pilot project that would allow secure electronic transmission of ballots by UOCAVA voters.

VA is grateful for the opportunity to apply for the Electronic Absentee Systems for Elections (EASE) Grant. We look forward to working with the FVAP and contributing to FVAP's onestop portal for millions of UOCAVA voters. It is our desire to join with the FVAP to ensure our military and overseas voters are able to cast their ballot, and have it counted, from anywhere in the world as easily as if they were voting in person at a polling place.

#### 2. Goals and Objectives

The primary goals of the project are to grow VA's active UOCAVA voter base, and to gather and provide comprehensive data detailing UOCAVA voter activities. Specifically;

- Develop and deploy new systems, integrated with existing SBE systems, and providing Webdelivered voter services for the complete UOCAVA voter life-cycle, from voter registration and ballot request through balloting and ballot tracking.
- Develop and deploy innovative data integration between new and existing systems, to provide comprehensive data gathering of all UOCAVA voter services activities for an election cycle, integrated and published using standards-based public data formats
- Reduce our overall long term costs of managing and supporting MOVE Act compliance and UOCAVA services.
- Evaluate additional advanced technology solutions for UOCAVA voter participation.
- Develop additional evidence and documentation to assist SBE in obtaining legislative approval for secure ballot return for UOCAVA voters.

Key objectives for this project include:

- Provide a turn-key tool for citizens of Virginia to register to vote, determine their UOCAVA eligibility, complete an absentee ballot application and complete an absentee ballot if eligible.
- Improve ballot access for VA's UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials (General Registrars).
- Provide a means for VA to deploy a "kiosk" version of the solution with deployed VA-based military units.
- Provide a solution that VA can build upon in the future as legislative needs catch up with the available technology.
- Provide an overall long term cost-effective solution for VA elections.
- Provide analytical information regarding the usage of the solution.
- Identify and pilot advanced technology solutions for UOCAVA voters.

To successfully meet the above stated goals and objectives for Virginia the resulting solution must offer:

# A Reliable, Proven System

Our vendors and their proposed systems have been proven in VA and beyond: LiveBallot has been used in over 200 U.S. elections, delivering ballots to thousands of voters in over 60 countries since 2008; OSDV open source technology managed the complexities of the entire voter database of VA, VA's electoral structure and VA's law and regulations for UOCAVA eligibility.

LiveBallot is hosted on MS' Windows Azure platform, providing 99.99% up-time reliability. Windows Azure delivers millions of transactions each month and is capable of automatically scaling up to meet any influx of voters to the system. Likewise, the OSDV-delivered Portal and Analytics components will also be hosted with MS' scalable hosting services.

# Improve the Voting Experience for Our Voters

LiveBallot offers a variety of features and functions that directly improve our voters' balloting experience. By providing an easy to use, online interface for our voters, they can access their ballot at their convenience. This is especially important to overseas military voters who have unpredictable schedules. The LiveBallot administrative interface allows us to customize the way information is presented to our voters, all text and messages, and even the way our LiveBallot site interacts with our voters.

# **Reduce the Failure Rates of UOCAVA Voters**

This proposal has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas of focus are voter registration, ballot delivery and ballot return.

This grant will enable us to deliver new initiatives and technologies to meet our goal of eliminating the gap between our domestic absentee and UOCAVA voters. Grant funding will allow us to provide voters with an intuitive process to register online and receive notification of ballot availability. In addition it will greatly improve the speed and accuracy by which ballots are delivered to and from our UOCAVA voters.

# Provide a UOCAVA Solution Capable of Advancing with Technology

LiveBallot is built on a solid core foundation with a robust *modular architecture*. LiveBallot's modular architecture provides three key advantages: reliable updates, components that can be enabled when we are ready, and the addition of features and improvements over time. The MS team is able to keep our solution current with the latest LiveBallot updates while continuing to build new features and improvements to meet our future needs.

The LiveBallot team understands the dynamic nature of technology and its effect on the election process. They understand our desire to utilize the best technology, as well as the necessity of never disrupting the voting process. The LiveBallot architecture will enable us to achieve both of these objectives while delivering uninterrupted content to our voters.

#### Save on Costs and Overhead

LiveBallot utilizes the cost benefits of a cloud based solution by using MS' Windows Azure platform. Using a web-based application, we do not need to acquire additional IT personnel, purchase or maintain any server equipment, spend time developing and testing software, or worry about managing updates. Additionally, when an election drives heavy voter traffic, we are not limited due to pricing plans or server resources, nor will we incur extra charges due to high bandwidth usage.

# **UOCAVA Improvement Projections**

We project that by fully deploying this new technology, we will dramatically streamline and speed the balloting process for our UOCAVA voting population, as well as the save significant staff time complying with the new mandates of the MOVE Act.

- We anticipate our ballot return rate will improve by well over 50% with the goal of eliminating the ballot return gap between UOCAVA and domestic voters.
- We anticipate UOCAVA voter registration and participation will increase by over 35%

- We anticipate our ballot requested to ballot tabulated rate will climb by over 40%.
- We anticipate voter confirmation (ballot tracking) will climb over 75%.
- We anticipate that our UOCAVA assessment reporting metrics to FVAP and data aggregation tools will be dramatically improved, with reporting enhanced by over 75%.
- We anticipate improving the ballot return rate for UOCAVA voters by over 50% over the next election cycle, ultimately getting to a point where there is a zero gap between UOCAVA voters and domestic voters by 2016.

# 2.1 Comprehensive UOCAVA Voter Life-Cycle Portal Project

The FVAP funding will ensure that VA offers an intuitive, one-stop, seamless process for the voter to register and manage eligibility, to be notified of ballot availability, access and mark the ballot and dramatically improve the ballot return rate.

The following is an overview of our proposed system and its key features, which will allow us to meet our goals and objectives for this grant. For the complete set of online Voter Services, the key components are: end-end LiveBallot eBalloting solution from Democracy Live; VA Voter Portal from OSDV; Voter Services Analytics from OSDV; and MS' cost-effective, highly reliable and scalable platform for operating these services.

# Voter Specific, On-Demand Ballot Lookup

The LiveBallot system offers a Web-based, on-demand, voter specific ballot lookup. Using the LiveBallot system, voters from anywhere in the world can access their specific ballot online. This is a key feature of LiveBallot and eliminates the need for our staff to manually send email or paper ballots individually to each registered UOCAVA voter.

#### Voter Services Portal for Eligibility Management and Online Forms Assistance

The VA Voter Service Portal will extend the existing online registration assistance to implement VA's specific requirements for voter registration and absentee ballot applications, especially UOCAVA-specific requirements. The Portal is a Web application that UOCAVA voters use to manage and maintain the ability to vote overseas. Users initially access the system to identify themselves using information that is already in VA voter records, if the user is a registered voter. For those not registered to vote, the Portal provides assistance in determining eligibility to vote, collection of voter registration information, and providing a completed and correct voter registration form for the user to print, with full support for VA-specific UOCAVA requirements for forms use. For users who access the Portal using a set of current voter registration data, the Portal provides similar assistance in updating registration information, eligibility to vote absentee, UOCAVA status, and request for absentee ballot. Finally, the Portal also assists voters in determining eligibility to use the remote balloting solution; for eligible users, the Portal directs the user to the appropriate starting point for beginning the remote balloting process with LiveBallot.

The Portal will allow the user to determine which forms to complete in order to gain overseas voting eligibility, to complete them online, to print for signature and return to election officials, and to electronically deliver the forms data to existing VA election systems. The LiveBallot system will similarly enable a voter to electronically complete the absentee request form, to

return along with a completed ballot, in order to ensure the UOCAVA voter gains eligibility for absentee voting in the next election.

# **Usage Data Collection and Analytics**

The Voter Services and Balloting Analytics service is a Web application that will be used by SBE staff to aggregate information about UOCAVA voter activity, both from the Portal and LiveBallot, and also from existing VA election systems that track UOCAVA voter ballot outcomes. The Analytics service aggregates these disparate record streams, and constructs a unified set of voter-specific records that both lists every voter action in a standard form, and also lists each voter's actions for the entire election cycle. The Analytics service is the use of statistical reporting, but the main innovative feature of the Analytics service is the use of common data formats (CDFs) for import/export functionality. Using CDFs, other parties, including FVAP, can obtain a complete set of VA-wide data, to compare or combine with data from other states, and to perform statistics and data mining beyond the statistics of the Analytics service's Web interface. By supporting CDFs, the open-data and complete-data nature of the Analytics service will make the Analytics service equally useful to other elections organizations that require standards-based voter activity data aggregation.

#### **Interfaces to External Systems**

LiveBallot was designed to handle structured data imports and exports (.txt, .csv, .edx, and .xml) from the major election management and voter registration systems. The Data Import Tool then presents import steps specific to the system being utilized. A simple mapping tool allows us to quickly and easily upload, import, and interact with the data to insure it is accurately imported into LiveBallot.

#### Data Import/Export Interface

Our vendor team understands the wide range of election technologies in use today and encourages the standardization of election data. If, however, we require customization or have a unique data structure, a custom importer/exporter can be quickly created by implementing the LiveBallot Data Import/Export Interface.

#### **Ballot Tracker Module**

UOCAVA voters may return to our LiveBallot website to monitor the status of their ballot. We have the ability to include multiple tracking dates and/or messages in our voter registration file. Ballot Tracker then displays voter specific tracking information from our voter registration file. Absentee ballot request, ballot access, and returned ballot dates are examples of some of the tracking dates that we may choose to display to the voter.

#### **Accessibility Qualifications**

For disabled UOCAVA voters, the LiveBallot electronic balloting tool has been federally reviewed and approved by the U.S. Department of Health and Human Services and is Section 508 reviewed and approved. Additionally, LiveBallot has been evaluated and shown to have the highest levels of accessibility by the Center for Disabilities and American Council for the Blind.

LiveBallot also strives to meet Web Content Accessibility Guidelines (WCAG) 2.0 specifications where possible.

#### **Multilingual Support**

LiveBallot's flexible layout engine allows for multi-lingual or single language ballot displays. Ballot data and on-screen instructions are managed by a translation system. Translations may be directly entered into LiveBallot or a translation file may be uploaded. If a translation file is not available, we can download a translation file from LiveBallot, enter translations, and then reupload the file.

#### **Ballot Delivery**

LiveBallot offers selectable options for ballot delivery to our voters. This includes mail, fax and email ballot return packages that include all of our required documents.

#### Protect our voter's privacy and information

VA understands that the security of voter information and election data is one of our most important concerns. The MS solution protects the voter's privacy, as well as your election data, with its combined front and back end security. LiveBallot ensures the privacy of all data by providing protection both in transit and in storage.

LiveBallot protects voter data on the front end using highly secure SSL encryption, automatic expiration of a voter's session on the website, and limitations on the information stored in the voter's session. Voter information and election data uploaded to LiveBallot is safely stored on MS' Azure platform and is protected by MS' security standards. The Azure platform offers the highest level of security and was designed with a focus on confidentiality, integrity, and availability of customer data. MS employs some of the leading security and cryptographic experts in the field with subject matter expertise in online security.

LiveBallot is hosted domestically in the United States utilizing the scalability and security of Azure platform. LiveBallot complies with federal and state elections laws and will continue to meet the laws of federal and state elections rules. With billions of transactions securely hosted and delivered, the Azure platform offers us the highest degree of confidence our data will be protected and available when needed.

# Help Desk and Support Statistics

The LiveBallot Support Team provides 24/7 support during elections and is available for assistance when needed. The Support Team maintains help desk statistics on call volume, resolution, and response time. Help desk reports will be made available upon request.

# 2.2 Evaluation of Technology Options for Advanced UOCAVA Solutions

SBE and Scytl will conduct a research and development project designed to further the body of knowledge and strengthen the concepts and technology for advanced UOCAVA solutions. This project will be targeted at specific VA customs and scenarios but will consider application to other similar jurisdictions. Technology solutions will be examined in the categories of

accessibility, secure electronic return and mobile voting stations for significance, sustainability, impact, innovation, and scalability.

VA believes these technology categories represent the future of UOCAVA voting solutions. Therefore, it is clear that research and proofs of concept in these categories are necessary to fully understand and quantify their potential impact. Efforts to this end will focus on the key factors of significance, sustainability, impact, strategic approach, innovation, scalability, collaboration and cost benefit.

This project will employ a thorough and established research methodology and will be structured in distinctive phases. The research methodology includes data gathering, testing and the review of technology, tools, processes and practices, the development of findings, recommendations and deliverables, and the dissemination of work products. All research, analysis, and findings of the project will be transferrable to other jurisdictions and will likely be a foundational project in the development of future UOCAVA voting.

#### 2.3 Schedule and Milestones

#### **Requirements Gathering**

During this phase, the MS, Democracy Live and OSDV teams will work with SBE to finalize the requirements for the proper configuration of the Voter Portal, LiveBallot and the Analytics tool. This will include evaluating necessary changes for VA's voter registration system.

The Scytl team will work with SBE to identify deploying units and military hospitals to partner with and will gather data from prior research relating to accessible voting and secure ballot return initiatives.

#### **Planning and Development**

During this phase, the MS team will configure the Voter Portal, LiveBallot and the Analytics tool according to the gathered requirements. The Scytl team will formalize necessary partnerships and determine which technologies to use in the pilot tests.

# Testing

During this phase the MS team will conduct a test pilot with the Voter Portal, LiveBallot and the Analytics tool and perform any necessary remediation configuration activities. The MS team will develop at test report that documents acceptance test procedures and results. The Scytl team will conduct the majority of its work at this phase through pilot testing of the advanced technology options identified in the previous phase. White papers and other formal documentation will be developed to document the results of the advanced technology option pilots.

#### Implementation

The MS team will implement and support the Voter Portal, LiveBallot and the Analytics tool for VA elections for 5 years. The product suite is modular in nature and legislative changes will involve minimal configuration changes to the system in most cases.

#### **Project Phases/Milestones**

- Initial Meetings
  - Request for Information
  - Determine point of contact and escalation (roles/responsibilities)
  - o Formalize Requirements and Sign-off
- Configuration (and Customization)
  - o Administration Configuration
  - o Setup jurisdiction contact information
  - o Core Configuration
  - o Online Ballot Instructions
  - o Ballot Package (Mail, Fax, Email) Completed
- Email Notification to Voter
  - o Discuss and verify email notification process
  - o Define our PIN Generation Process
  - o Discuss Email Reporting (what and when)
  - o Formalize notification workflow
- Discovery and Analysis (import data)
  - o Upload VR Data
  - o Upload and Import Election Data
  - o Analyze data for completeness
  - o Proof Election Data Mapping
- Internal Testing
  - Verify election ballot data
  - Verify ballot delivery settings
  - o Verify county page content and links
- Initial UAT
  - o Conduct UAT Prep Meeting
  - o Conduct Initial UAT Requirements and Functionality Walk-through
  - o Send UAT results and issue tracking XLS
  - o Get UAT results confirmation and acceptance
  - $\circ \quad \text{Address initial UAT gaps}$
- Final UAT
  - o Schedule Final UAT Meeting
  - o Conduct Final UAT Requirements and Functionality Walk-through
  - o Send Final UAT results and issue tracking XLS
  - o Get Final UAT results confirmation and acceptance
- Go-Live
- Exercise Support Process
- Conduct Final Walkthroughs and Data Validation
- Execute Workflows (e.g. Notification)

# 3. Reports

This grant will allow us to develop and deploy a range of detailed reports specific to our UOCAVA enhancement project. To date, we have not had the resources to fully implement a UOCAVA reporting system. With this grant we expect to implement the following capabilities:

- UOCAVA Enhancement Cost Tracker This report tracks the amount of time we spend preparing and making available electronic ballots for our UOCAVA voters.
- UOCAVA Enhancement Trend Analysis This tool will measure the rate of improvement for each of the following metrics:
  - Voter Registration
  - Ballot Delivery
  - Ballot Return
  - Time Spent on the Site
  - Voter Access vs. Downloads
  - Voter Registration to Download Trends
  - Voter Access by Geography
- UOCAVA One-time and Annual Payments to our selected vendors.
- A research summary on principals of current UOCAVA voting solutions.
- A research summary on principals of accessible, secure electronic return and mobile voting station technologies.

#### 4. Management Approach

Our management approach represents a proven development approach that provides for welldefined phases that take into account development of requirements, architectural design, detailed software design, software development, system testing, and managed release cycles.

Phases for the solution approach that are involved in this project are shown below:

- Envisioning: Envisioning involves creating a business vision and defining an approach to bring the vision to reality.
- Planning and Development: Planning continues through the development of functional requirements and a project plan for the project.
- Stabilization: Our team in cooperation with the vendor will test the solution and make modifications as needed.
- Deployment: The Deployment phase includes deployment of the solution and final testing.

Key Activities during the project will include the following:

- Kick-off and Vision and Scope meeting
- Define roles and responsibilities
- Outline key information needed to complete the project
- Confirm project approach
- Build and confirm project plan.

#### Eight Criteria Areas

Virginia endorses the eight criteria areas that are used to measure and evaluate this new UOCAVA program. Those areas are:

- 1. Significance
- 2. Sustainability
- 3. Impact
- 4. Strategic Approach
- 5. Innovation
- 6. Scalability
- 7. Collaboration
- 8. Cost Benefit Analysis

#### Significance/Impact

This Grant Request has the specific goal to increase the success rates for our UOCAVA population at each stage of the absentee voting process. The key areas and metrics that we focus on are:

- Voter Registration
- Ballot Delivery

- Ballot Return
- Ballot Casting

Historically, the biggest challenge for the UOCAVA voter population has been in "ballot return". LiveBallot will help meet the goal of <u>eliminating the gap</u> between domestic absentee voters and UOCAVA voters in all the key metrics, especially ballot return.

In addition, the FVAP grant will be enable us to ensure all voters regardless of mobilization or relocation outside of the U.S. will always be assured of a reliable method to register, access and return their ballot. VA has an increasingly mobile population and a growing rate of military personnel. Since we do not know who or when a voter may be out of the country or mobilized, the system we are selecting must be capable of addressing the mobility needs of every voter in our voter registration system. In our case that is over 5 million registered voters.

The additional research in advanced technology options for UOCAVA voters will help provide proofs of concepts for VA and other jurisdictions for use in consideration of advanced technology and the necessary legislative changes.

#### Strategic goals

The SBE team considers the UOCAVA project as a highly strategic opportunity to dramatically ease the process of balloting for overseas and military voters. In addition this project will secure the tools necessary to ensure any of the five million registered voters in the Commonwealth are able to easily register to become an approved, eligible UOCAVA voter.

Key strategic goals for this project are as follows:

- Improve ballot access for UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials.
- Provide a solution that can build upon in the future as legislative needs catch up with the available technology.
- Provide an overall long term cost-effective solution for our elections, leveraging royaltyfree open source technology where appropriate.
- Provide analytical information regarding the usage of the solution.
- Provide research evidence for advanced technological voting solutions for UOCAVA voters.

#### Our working hypothesis for this project states:

- A complete life-cycle Web-delivered UOCAVA voter services will reduce barriers to UOCAVA voter access, increase voter participation, and decrease errors that have the potential to disenfranchise.
- A comprehensive data collection will help demonstrate effectiveness, and enable comparison both over time, and between jurisdictions.
- Use of common data formats, particularly those emerging from IEEE standards activity, will enable data mining of data from many jurisdictions.

In summary, our strategy is to offer our UOCAVA voters a one-stop, turnkey eBalloting and registration tool that provides a dynamic and flexible platform that will reflect our current and future eBalloting requirements. The result will be demonstratively easier access to awareness,

registration, online balloting marking and return and tracking of the ballot for all eligible UOCAVA voters.

Longer-term strategy may involve expanding the system to offer LiveBallot as a multi-platform, comprehensive eBalloting application that is available via Facebook, mobile phone, Google, Bing or any number of emerging platforms, beyond our Web site. The resources of Microsoft and the elections expertise of both Democracy Live and the OSDV Foundation offers capabilities to grow with our laws, regulations, and vision.

# Sustainability

Many of our elections offices are understaffed and under-resourced. Accordingly, the SBE has designed this project to meet the following criteria:

- Statewide Board of Elections Directed Project This project will be conducted at the State level, thus reducing the burden on local elections administrators.
- Low long-term costs The Microsoft long term payment model offers an option where the state only pays for what they use. For example, beyond the Grant years, we would only pay based on the number of ballots actually downloaded and submitted.
- Secure, cloud-based systems are proven to offer significantly lower server and hosting costs.
- To ensure <u>long-term sustainability</u>, our solution offers a suite of applications that can be deployed to ensure our UOCAVA voters are getting a broad-based level of use from a wide variety of features and tools. LiveBallot technology has been deployed in U.S. jurisdictions since 2008 and has seen an increase of use and growth each election. We expect the same snowball effect in Virginia.

# Innovation

Microsoft Corporation has some of the world's leading innovators in areas of privacy, identity, data propagation, cross-platform utilization and security.

Microsoft's partner on this project, Democracy Live has been an innovative pioneer in the voter information technology space having developed and deployed:

- 1) Developed and deployed a Web-based, interactive accessible voter information guide.
- 2) The first multimedia, interactive eBallot and sample ballot specific to each voter.
- 3) The first comprehensive, multi-station, end-end mail ballot tracking system.
- 4) Deployed a Web-based, online marking tool for UOCAVA voters before the MOVE Act was introduced.

The expertise and resources of the OSDV Foundation help us ensure maximum transparency and verification in these vital elections processes.

All of the above tools are integrated into our proposed MOVE Act solution and may be turned on at the discretion of the State Board of Elections.

The combination of Microsoft, Democracy Live, and the OSDV Foundation ensures that our team has the resources and capabilities to enable constant adaptation to the evolving market and add innovative ideas to the system.

# Scalability

Scalability, Security and Stability are the key reasons LiveBallot is hosted in the Microsoft Azure cloud environment. With a proven 99.99% uptime and real time, multi-geographic server redundancy your voters can be assured their ballot will be available. Elections are a classic case for a cloud-based application. The LiveBallot server environment will <u>automatically scale</u> to meet the spikes and voter rush typically associated with elections. Using a cloud-based auto-scale environment our staff need not worry if we have enough server capacity. Microsoft Azure will ramp up automatically at no additional cost.

With tens of millions of monthly transactions, Azure is the second largest server network in the United States, second only to the U.S. Department of Defense. We are confident in the scalability of this system.

# Collaboration

A key objective for the SBE is to offer a seamless, integrated solution for each of the 134 elections jurisdiction in Virginia. Accordingly, we have developed a collaborative system which secures the required balloting and voter registration data from each elections jurisdiction in the State.

# Cost Benefit

VA has over five million registered voters from 134 elections jurisdictions. The award of this FVAP grant will enable VA to deploy a statewide, comprehensive MOVE Act and UOCAVA registration for years to come. A truly comprehensive MOVE Act and UOCAVA solution must be able to touch each of our five million registered voters since any one of the may become UOCAVA eligible at any time.

We expect to offer our UOCAVA system to each UOCAVA voter for every election. We believe that a GI, or other eligible voter should have equal access to the ballot, regardless of the size of the election. Therefore, we expect to use this solution for a minimum of three elections per year.

We estimate 900+ hours of statewide manual staff time to successfully comply with the MOVE Act per election at a rate of \$50,00 per hour. This total equates to a 4 year total of \$540,000.00. (At three elections per year.)

In addition, the management of the UOCAVA registration process for each voter is approximately 500 man hours each year. This totals an additional \$250,000 per year.

VA anticipates a total UOCAVA and MOVE Act compliance cost of nearly \$1,000,000 over a four year period. As noted in the table below, this grant will enable us to deploy a perpetual system, with very low and manageable annual fees that will dramatically lower the ten year costs by nearly \$1.1m dollars.

	Number of Man Hours Per Year	Cost to State and Localities – 4 Years	Cost to State and Localities – 8 Years	Cost to State and Localities – 12 Years	FVAP Project Cøst	12 Year <u>Savings</u>
MOVE Act Compliance	2,700	\$540,000	\$1,080,000	\$1,620,000		
UOCAVA	500	\$100,000	\$200,000	\$300,000		

Registration						
Time and materials – Server, Equipment,		\$200,000	\$400,000	\$600,000		
paper and postage						
Total	3,200	\$840,000	\$1,680,000	\$2,520,000	\$1,400,000	\$1,120,000

The deployment of the LiveBallot solution will eliminate the need for elections staff to manually register a UOCAVA voter application and manually send them a paper or email a ballot. LiveBallot assures that the County staff time is substantially reduced, while fully complying with all the provisions of the MOVE Act.

Through the one-stop LiveBallot application voters may register as a UOCAVA voter online, access and mark their ballot, print or email all the required materials and track their ballot. Staff need only add the voter into their VR system and send one generic email to all UOCAVA voters. We anticipate a significant impact on our staffing and resources, saving over 60% of staff time while still fully complying with the MOVE Act.

#### Analysis and measurement of current processes

Our UOCAVA voter population has expanded over the last decade, due in part to increases in the number of military personnel deployed overseas. We estimate nearly two thirds of our UOCAVA personnel are affiliated with the armed services. In order to serve this growing constituency, historically we have deployed a variety of tools to ensure timely access to the ballot. These measures include linking to the Federal Post Card Absentee Application and the Federal Write-in Absentee Ballot to our Elections home page. We also mail physical (paper) ballots and e-mail ballots to eligible UOCAVA voters.

Now we face the challenges of meeting the new requirements of the MOVE Act, while not adding to an overburdened election team during the critical days of an election. Principally, the MOVE Act requires electronic delivery of a ballot 45 days prior to a federal election. Despite the good intentions, in many cases this requires staff to spend precious election time working to comply with the law.

Our elections administrators have determined that we have narrowed the gap between our domestic and UOCAVA population in areas of voter registration and voter participation. However, we still have a significant gap in returning ballots in time to be tabulated. Our key success metric is to improve the process of successfully transmitting and *returning* the ballot in time to be approved and counted.

Our current procedure is a labor-intensive process exacerbated by the MOVE Act requirements. This grant funding will allow us to acquire and test new technologies to automate our registration, and transmittal and processing of ballots for our UOCAVA voters, thus significantly increasing our ballot return rate for our military and overseas voters while reducing compliance overhead.

#### Identification of each process and the elements that are related to the process

Our UOCAVA voter population has expanded over the last decade. In order to serve this growing constituency, our current process is as follows:

- Voters apply to vote as a UOCAVA voter using the Federal Post Card Absentee Application.
- Once registered and in the system, we mail a physical ballot to the voter. Over the past few years we have emailed a ballot and the requisite balloting information to those voters on file with a valid email address.
- Our goal has been to send the ballot at least 45 days in advance of an election to our registered UOCAVA voters.
- The ballot is returned by the voter, along with the signed affidavit attesting to their validity as a registered, eligible voter.
- Ballots by eMail are typically duplicated, or re-made onto a ballot that can be tabulated.
- Eligible ballots are processed and submitted for tabulation.

# Identification of potential risks and mitigating strategies

We believe the rewards of deploying an automated, proven, fully compliant MOVE Act solution that has been used and tested in hundreds of localities around the country greatly outweigh the risks associated with deploying a new technology. However, any successful project must understand that there are risks associated with initial deployments. These risks entail:

- Newer technology in the early part of the life-cycle
- Lack of voter awareness of new digital balloting tools

In order to mitigate the above listed risks we plan to deploy the following risk mitigation strategies:

- We will conduct a test pilot in the production environment using the new technologies.
- We will conduct acceptance testing procedures to ensure that the requirements identified in the Envisioning Phase are satisfied.
- Perform remediation configuration activities on the LiveBallot eBalloting tool to address any issues/problems uncovered during the pilot test exercise
- We will develop a Test Report that documents Acceptance Test procedures and resulting using the pilot test users.
- Revise and refine our back end processes to handle the expected increase in UOCAVA ballots.

The deployment phase will consist of the following activities:

- Execute operational test procedures to ensure the technology is functioning properly
- Provide our team access to the tool to allow execution of administrative procedures and to run reports
- Provide operational support during an election to ensure the eBalloting solution is made available to our voters

The following general procedure will be used to manage project issues and risks:

Identify and document

- Assess impact and prioritize
- Assign responsibility
- Monitor and report progress
- Communicate issue resolution

A mutually agreed upon issue escalation process will be defined at the outset of the project.

#### Formalization of performance indicators for each process

It is critical for us to be able to manage and compile reports for each of our key performance metrics. These metrics include a wide array of indicators, including detailed statistical reports on the voter registration, balloting activity and cost tracking. LiveBallot tracks voter events to offer statistical reports for our jurisdictions. The LiveBallot dashboard allows a quick view of the number of visitors and other statistics for each jurisdiction

#### Justification for the modification to the existing processes

Our current UOCAVA process is a labor-intensive, manual environment in which our elections staff must spend a disproportionate amount of time. We believe that every eligible voter should have equal access to the ballot. Therefore, regardless of the time it takes, our staff will ensure the ballots gets delivered and processed. Our key objective is to narrow the gap between domestic ballot return and UOCAVA ballot return. By automating the process with the LiveBallot Web online system, our UOCAVA voters will be able to register to vote, access and mark their ballot and track the status of their ballot on-demand and online. In addition, automating the MOVE Act compliance requirements will free up our staff to do other necessary elections period activities that relate to all our voters, domestic and abroad.

We are confident that an automated, Web hosted solution will greatly narrow the gap between UOCAVA and domestic voters, while reducing the costs associated with a manual process. By deploying the LiveBallot system we can offer voter registration, ballot access and ballot return at nearly an 80% quicker rate than our tradition manual process. As a result of LiveBallot, we expect that over 50% less man-hours will be spent on UOCAVA related voter registration, ballot delivery, ballot processing and ballot duplication.

Finally, the LiveBallot system will be available to every eligible voter around the world, ondemand, without relying on any one individual to mail or email them an individual balloting package. Every laptop or computer with a browser will become an eBalloting tool, delivering the correct ballot to the correct voter no matter where in the world they live, regardless of physical disabilities. Our selected system has been reviewed and approved for the highest level of accessibility for disabled voters by the University of Washington Center on Disabilities Council for the Blind. Using the LiveBallot system, every eligible UOCAVA voter, from Waziristan to Walter Reed will have access to their ballot, where and when they want it.

#### Measurements of performance

Our objective is to continually assess, measure, and track our improvement relating to our UOCAVA population. The technology we have chosen offers an array of reporting tools to ensure we are able to performance measure what we are managing. The reporting tools include, but are not limited to:

- Number of voters requesting a ballot
- Number of visitors viewing a ballot
- Number of ballots downloaded
- Delivery method requested/downloaded
- Rate of ballot transmission to office after ballot is downloaded
- Ballot tabulated to ballot requested ratio
- Ballot requested to ballot downloaded ratio
- Locality and Region of Voter activity
- UOCAVA Enhancement Cost Tracker this report tracks the amount of time we spend preparing and making available eBallots for our UOCAVA voters.
- UOCAVA Enhancement Trend Analysis

An annual final report will summarize the entirety of the data and financial reports. This is the report that is to be made available to FVAP by the  $15^{th}$  of February for each of the grant-supported years, but at least through 2016.

#### 4. Current and Pending Project Proposal Submissions

We currently have no current or pending projects that overlap with this initiative. We have been in strategy discussions about the various balloting tools that are available to assist not only our UOCAVA voters, but also ways to assist our disabled population. However, we have no current or pending program or proposal developed or planned at this time.

#### 5. Qualifications

Microsoft Corporation is the worldwide leader in software, services, and solutions that help people and businesses realize their full potential. Microsoft has been supporting the Department of Defense, Microsoft's largest customer in the world, for more than 30 years. Microsoft has been providing on-line services to hundreds of millions of users for more than 15 years.

Specifically, Microsoft Corporation has extensive experience developing the Washington State Statewide database and working on the New York State Voter Registration project. Microsoft was the Prime contractor for the 2010 FVAP Project, using Democracy Live technology. Microsoft's largest customer is the U.S. Department of Defense, the sponsor of the FVAP funding.

Democracy Live, Inc., our technology and solution provider is a pioneer in the emerging voter information technology industry. With decades of elections experience, Democracy Live has successfully deployed innovative voting assistance products to empower voters and has met the requirements of the MOVE Act. The Democracy Live system has been used in over 200 U.S. elections, delivering ballots to thousands of voters in over 60 countries.

The Open Source Digital Voting Foundation is a Silicon-Valley based non-profit public benefits organization designing and developing an open source publicly owned elections technology framework comprising components for every aspect of the election life cycle and ballot ecosystem. OSDV technology is in deployment in the state of Virginia and the District of Columbia, with various pilot and design-phase efforts in jurisdictions around the country.

Election Systems and Software, Inc. (ES&S) is the largest elections-only company in the world. ES&S provides voter tabulation, voter registration and election training systems and services to clients ranging in size from small county governments and individual organizations to state boards of elections and international governments.

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. Scytl's advanced election security technology positions the company as a worldwide leader in the election modernization space.

Scytl was formed as a spin-off from a leading research group at the Autonomous University of Barcelona. This group has pioneered the research on election security since 1994 and has produced significant scientific results, including over 30 scientific papers published in international journals and the first two Ph.D.'s theses on electronic voting security. Scytl's unique election security technology derives from over 16 years of pioneering R&D and is protected by a portfolio of international patents.



Commonwealth of Virginia State Board of Elections

Response to the

Defense Human Resources Activity - Federal Voting Assistance Program's Electronic Absentee Systems for Elections Grants for States, Territories and Localities

Volume II - Budget Proposal

Title:

Virginia Comprehensive UOCAVA Voter Life-Cycle Portal Project and the Evaluation of Technology Options for Advanced UOCAVA Solutions

*CFDA*: 12,217 *BAA*: HO0034-FVAP-11-BAA-0001 *CAGE*: (b)(4) *DUNS*: (b)(4)

Contractors and Sub Recipients: Microsoft Corporation Democracy Live Open Source Digital Voting Foundation Scytl ES&S

Proposed Period of Performance: August 2011 – July 2016

Submitted by: Matthew Davis Submitted on: July 13, 2011

Technical Contact: Matthew Davis 1100 Bank Street, 1<sup>st</sup> Floor Richmond, VA 23219 t: 804-864-8905 f: 804-786-2045 matthew.davis@sbe.virginia.gov

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#### **Table of Contents**

The following pages provide the requested supporting details for the budget proposal for this project. Statements of Work, Work Orders and Budget Estimates are included.

- I. Statement of Work Virginia State Board of Elections eBalloting Support a. Microsoft Consulting Services Work Order 20110574
- II. Statement of Work eBalloting Portal Integration and Implementation Support for Virginia State Board of Elections
  - a. Microsoft Consulting Services Work Order 20110616
- III. Statement of Work Evaluation of Technology Options for Providing Advanced UOCAVA Solutions to Virginia
  - a. Budget Breakdown Categories
- IV. Virginia Voter Registration System Modifications

# Virginia State Board of Elections eBalloting Support

Statement of Work

Prepared for

Virginia Board of Elections

# Richmond, Virginia

07 June 2011

Version 5

Prepared by

Kiran Reddy Engagement Manager kiranb@microsoft.com

Kent Smith Services Executive kentsmi@microsoft.com

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# **EXECUTIVE SUMMARY**

This engagement will be performed in accordance with the Microsoft Service Line Offerings (SLO) SL1 Enterprise Strategy Projects. Please note, the aforementioned is an internal Microsoft designation for service catalog offering and is provided for Microsoft internal audit purposes only.

Microsoft and its subcontractor (Democracy Live) will perform the services identified below for you on a Time and Materials basis. Any dates provided are estimates only. Most of the services will be performed remotely (as a Cloud Offering) – while other services may be delivered at the place of performance identified on the cover page. Because we are performing the services under your direction, based on an estimated period of performance and fees, we do not warrant that any services deliverables will be completed or be satisfactory to you within the estimated period or fees.

# WHY MICROSOFT

Microsoft Enterprise Services offers a single point of delivery and support through the entire IT lifecycle, from envisioning through day-to-day operations. Our consultants and engineers have the necessary technical, architectural, and project management skills to help mitigate risk associated with business and technical constraints and organizational diversity. We can often accelerate the rate of implementation by utilizing *prior project success* and *experience* gained through similar engagements. Our services team can provide technical, architectural, and overall project leadership expertise throughout the effort.

Our integrated team model is designed with the intent to help transfer Microsoft knowledge back to your project team members. Microsoft and our partner consultants assume the role of mentors and will structure this project with an anticipated goal to help transfer skills and knowledge to the Virginia Board of Elections' staff.

# **1 PROJECT OBJECTIVES AND SCOPE**

# 1.1 Objectives

The Virginia Board of Election ("BOE") wishes to provide an eBalloting capability to its overseas and military voters. This eBalloting capability will provide an optional mechanism for voters in the Commonwealth of Virginia to participate in elections. This balloting capability will be provided using the Democracy Live *LiveBallot*<sup>TM</sup> (Software as a Service) solution.

**LiveBallot**<sup>TM</sup> provides state and local jurisdictions with a simple, turn-key electronic balloting solution specifically designed to meet the requirements of both the Uniformed and Overseas Citizens Absentee Voting Act ("UOCAVA") and the Military and Overseas Voter Empowerment (MOVE) Act. **LiveBallot**<sup>TM</sup>, now in its second generation, utilizes Microsoft's state-of-the-art Azure cloud computing technology to deliver to our clients a web-based electronic ballot solution that is secure, cost-effective and easy to deploy. It has been proven in over 250 jurisdictions throughout the U.S.

Key objectives for this deployment include:

- 1. Provide a portal for citizens of Virginia to register to vote, determine their UOCAVA eligibility, complete an absentee ballot application and complete an absentee ballot if eligible.
- 2. Improve ballot access for Virginia's UOCAVA voters, while at the same time, providing a positive solution/experience for the local election officials (General Registrars).
- Provide a means for Virginia to deploy a "kiosk" version of the solution with deployed Virginiabased military units.
- 4. Provide a solution that Virginia can build upon in the future as legislative needs catch up with the available technology.
- 5. Provide an overall long term cost-effective solution for Virginia elections.
- 6. Provide analytical information regarding the usage of the solution.

# 1.2 Areas Within Scope

#### 1.2.1 Envisioning Phase

The Envisioning Phase of this engagement consists of documenting your eBalloting requirements to allowing the configuring of the *LiveBallot*<sup>m</sup> SaaS solution. During this phase, we will perform the following tasks that allow us to identify your business requirements as they pertain to eBalloting:

- Provide demonstration workshop onsite of the t *LiveBallot™ tool*
- Setup working group sessions to document your business and technical requirements
- Identify election file import requirements
- Identify onscreen instruction requirements for the Commonwealth of Virginia

- Identify user roles and associated permissions for the LiveBallot™ tool
- Identify Return Ballot Packages and Custom Ballot Package forms requirements
- Identify requirements for statewide elections set-up and county inheritance of statewide data.

# 1.2.2 Planning and Development

The Planning/Development phase consists of the following activities:

- We will analyze the results from Task 1 and determine configuration setting for *LiveBallot*<sup>™</sup> tool
- Configure the tool to address election file import requirements
- Develop onscreen instruction requirements for the Commonwealth of Virginia based on requirements from the Envisioning Phase
- Setup user roles and associated permissions for the *LiveBallot*<sup>™</sup> tool based on identified requirements
- Create Return Ballot Packages and Custom Ballot Package forms requirements
- Setup the tool to support statewide elections set-up and county inheritance of statewide data (as appropriate)

# 1.2.3 Stabilization

Our partner (Democracy Live) will lead the deployment of the *LiveBallot*<sup>™</sup> solution into the production environment for pilot user access.

The Stabilization phase will consist of performing the following activities:

- We will conduct a test pilot for up to fifty (50) users in the production environment using the LiveBallot<sup>™</sup> tool
- We will conduct acceptance testing procedures to ensure that the requirements identified in the Envisioning Phase are satisfied
- Perform remediation configuration activities on the *LiveBallot*<sup>™</sup> tool to address any issues/problems uncovered during the pilot test exercise
- We will develop a Test Report that documents Acceptance Test procedures and resulting using the pilot test users.

# 1.2.4 Deployment and Operational Support

Our partner (Democracy Live) will lead the cutover of the *LiveBallot*<sup>m</sup> solution in the production environment for all potential users.

The Deployment phase will consist of performing the following activities:

• Execute operational test procedures from multiple remote locations to ensure the *LiveBallot*<sup>™</sup> is functioning properly

- Provide customer access to the tool to allow execution of administrative procedures and to run reports
- Provide operational support during an election to ensure the eBalloting solution is made available to Commonwealth of Virginia constituents.

# 1.3 Software Products / Technologies

Technology	Provided by
Windows Azure	Microsoft/Democracy Live
SQL Azure	Microsoft/Democracy Live

Table 1: Solution Software Required

# 1.4 Training and Knowledge Transfer

#### 1.4.1 Knowledge Transfer

Informal knowledge transfer will be provided throughout the project. Informal knowledge transfer is defined as informal activities provided when Virginia State Board of Elections team members, associates, or contractors are in concert with Microsoft team members. This may include: whiteboard discussions, email threads, Live Meeting conference calls and facilitated meetings on technical topics. No deliverables or meeting summary will be provided for these sessions or activities.

#### 1.4.2 Training

Democracy Live will provide training to Virginia State Board of Elections officials using a "Train the Trainer" approach. One training session will be provided for up to sixteen (16) people on-site at a customer-provided training facility. Customer will be responsible for providing client hardware for training. The training will last two (2) days on-site.

The Democracy Live training approach teaches the instructors how to train others on the LiveBallot voter facing application, as well as the administrative tools. The purpose of Democracy Live "Train-the-Trainer" exercise is to demonstrate how to successfully plan and conduct training events suitable for the appropriate audiences.

"Train-the-Trainer" includes, but is not limited to the following:

- Full knowledge of the LiveBallot System
- How to use the training documents
- How to show and tell the objectives in your training
- How to start and end your training sessions on time
- Customizing your training to the strengths/weakness of your trainees
  - o Adjust training to meet the learners' needs

• Create a training climate that encourages questions and participation

# 1.5 Areas Out of Scope

- We will not purchase or provided any hardware or software for this project
- Anything not excluded in this section and not listed in the above "Areas within Scope" is considered out of scope for this SOW.

# 2 PROJECT APPROACH, TIMELINE AND SERVICE DELIVERABLES

# 2.1 Approach

We will leverage the Microsoft Solutions Framework (MSF) to execute this SOW. MSF represents a proven solution development approach that provides for well-defined phases that take into account development of requirements, architectural design, detailed software design, software development, system testing, and managed release cycles.

Phases for the MSF solution approach that are involved in this project are shown below:

- **Envisioning:** Envisioning involves creating a business vision and defining an approach to bring the vision to reality.
- Planning and Development: Planning continues through the development of functional requirements and a project plan for the project.
- **Stabilization:** Microsoft Services will test the solution and make modifications as needed.
- **Deployment:** The Deployment phase includes deployment of the solution and final testing.

# 2.2 Key Microsoft Activities

Key Activities for Microsoft during the project will include the following:

- Kick-off and Vision and Scope meeting
- Define roles and responsibilities for you and Microsoft
- Key contacts for both Customer and Microsoft
- Outline roles and responsibilities
- Outline key information needed to complete the project
- Identify lead person for Virginia Board of Elections
- Identify other dependencies that will or could affect or impact the engagement, such as availability of resources and personnel
- Confirm project approach
- Build and confirm project plan. This is a shortened high-level project plan for the engagement that outlines the tasks to be completed
- Provide "Train the Trainer" training
- Provide on-going status information to the customer and to the Microsoft team via Weekly Project Status Reports - during Envisioning and Planning activities only.

# 2.3 Key Customer Activities

Key Activities for the Customer during this project will include the following:

Function as lead in collecting information needed in the Envisioning and Planning Phases

- Provide environment information
- Provide the right personnel to assist with project activities
- Ensure availability of personnel (both Microsoft and Customer) and testing facilities
- Provide facilities for Microsoft personnel to work during the length of the project
- Provide an executive sponsor.

### 2.4 Estimated On-boarding Timeline

The project will be divided into two (2) primary groups of task activities. The on-boarding process is estimated to take no more than two (2) weeks. The eBalloting solution functionality will be provided for as long as the customer elects to use the LiveBallot system.

Phase	Duration <sup>1</sup>
Envisioning and Planning	Approximately 8 Weeks
Stabilization-Deployment	Approximately 4 Weeks
Operations	As determined by BOE
Total	Relative to the Start Date and the duration of Operations

# 2.5 Key Service Deliverables and Acceptance Process

#### 2.5.1 Key Project Service Deliverables

The following is a list of the key project service deliverables that will be delivered within this SOW.

Project Phase	Service Deliverable Name	Service Deliverable Description
All Tasks Weekly Status Report Pro		Provides summary of tasks completed, tasks planned,
	(To be provided during migration of	hours worked , risks and suggested risk mitigation
	users only)	strategies
Stabilization Phase	Test Report	Documents Test Plan procedures used, test executed,
		test results and remediation recommendations.
Deployment Phase	Training Materials	Training materials to support delivery of "Train the
		Trainer" training of customer personnel.

# 2.5.2 Service Deliverable Acceptance Process

At specified milestones throughout the project, we will deliver completed project service deliverables for review and approval. Service deliverables shall be accepted or rejected within five (5) consecutive business days from the time of submittal for acceptance. Service deliverables shall be deemed accepted in the absence of review or response of acceptance within this specified time. The use or partial use of any service deliverable constitutes acceptance of that service deliverable. Feedback supplied after the review period will be evaluated as a potential change of scope and shall follow the Change Management Process outlined in this SOW.

The Service Deliverable Acceptance Process is described below:

- Submission of Service deliverables
   The Microsoft Engagement Manager, or his designee, will prepare a Service Deliverable
   Acceptance Form and forward with the respective service deliverable to the Customer Project
   Manager, or Customer designee, for consideration.
- Assessment of Service Deliverables
   The Customer representative will determine whether the service deliverable meets the
   requirements as defined in this SOW and that the service deliverable is complete. Additional
   work on, or changes to, an accepted service deliverable that are requested by the Customer will
   managed through the Change Management Process.
- Acceptance / Rejection

After reviewing, the Customer will either accept the service deliverable (by signing and dating the Service Deliverable Acceptance Form) or will provide a written reason for rejecting it and will return the Service Deliverable Acceptance Form to the Microsoft team. If feedback from multiple Customer representatives is received, then the Customer Project Manager, or Customer designee, will consolidate that feedback before delivering it to the Microsoft team.

Correction of Service Deliverables

Microsoft will correct in-scope problems found with the service deliverable and will address the correction of out-of-scope changes according to the Change Management Process. Microsoft will submit a schedule for making changes to the service deliverable within two (2) business days of receiving a rejected Service Deliverable Acceptance Form. Once Microsoft corrects all previously identified in-scope problems, the service deliverable will be deemed accepted following the acceptance wording outlined in the first paragraph of this section 2.3.2.

Monitoring and Reporting

The Microsoft project team will track service deliverable acceptance. Updates on service deliverable acceptance will be included in the status report and discussed in the status meeting. Service deliverable acceptance issues that cannot be resolved will be elevated to the Project Steering Committee.

## 2.6 Project Governance Approach

#### 2.6.1 Communication Plan

A formal process will be employed to facilitate communication during the project. There will be two (2) key vehicles for providing this communication: a weekly status report and a weekly status meeting.

- The Microsoft Project Manager, working in conjunction with the Customer Project Manager, will compile status reports with the frequency defined above for distribution to both Customer and Microsoft management.
- Meetings will be held with the frequency defined above to review overall status, the project schedule and open issues noted in the status report.

### 2.6.2 Issue/Risk Management Procedure

The following general procedure will be used to manage project issues and risks:

- Identify and document
- Assess impact and prioritize
- Assign responsibility
- Monitor and report progress
- Communicate issue resolution.

A mutually agreed upon issue escalation process will be defined at the outset of the project.

#### 2.6.3 Change Management Process

During the project either party may request in writing additions, deletions, or modifications to the services described in this SOW ("change"). We shall have no obligation to commence work in connection with any change until the estimated fee and schedule impact of the change is agreed upon in a written Change Request Form signed by the designated Project Managers from both parties.

Upon a request for a change, we shall submit the change on our standard change Request Form describing the change, including the estimated impact of the change on the project schedule, fees and expenses. The Change Management Process that will be employed is defined below. Both parties agree to follow this process and to use the Change Request Form.

- Identify and document
- Assess impact and prioritize
- Estimate required effort
- Approve / disapprove
- Assign responsibility
- Monitor and report progress
- Communicate change resolution.

Within five (5) consecutive business days of receipt of the proposed Change Request Form, you shall either indicate acceptance of the proposed change by signing the Change Request Form or advise us not to perform the change. If you advise us not to perform the change, then we shall proceed only with the original services. In the absence of your acceptance or rejection, we will not perform the proposed change.

## 2.7 Project Completion

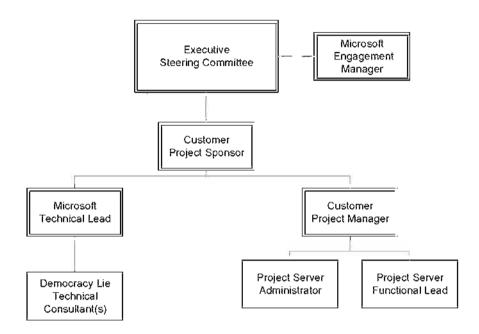
The project will be considered complete, when any of the following are met:

- 1. All of the service deliverables identified within this SOW have been completed, delivered and accepted or deemed accepted, including approved Change Request Forms;
- 2. The fee provisions of the Work Order have been met; or
- 3. This agreement is terminated pursuant to the provisions of the agreement.

## **3 PROJECT ORGANIZATION AND STAFFING**

## 3.1 Project Organization Structure

This section identifies the overall project organization structure, reporting relationships, and key project roles and responsibilities.



## 3.2 Project Roles and Responsibilities

This section provides a brief overview of key project role responsibilities.

Role Name	Role Responsibilities		
Senior Consultant	Conduct/deliver all technical activities related to this project		
Engagement Manager	Ensure that project is on track and escalation of issues		

# 4 GENERAL CUSTOMER RESPONSIBILITIES AND PROJECT ASSUMPTIONS

## 4.1 General Customer Responsibilities

Our delivery of the services are dependent on your involvement in all aspects of the services, your ability to provide accurate and complete information as needed, your timely and effective completion of the responsibilities as identified herein, the accuracy and completeness of the Assumptions, and timely decisions and approvals by your management. In addition to any Customer activities identified in the Approach section, you will perform the tasks, furnish the personnel, provide the resources, or undertake the responsibilities specified below.

- We will work with you to obtain workspace for each team member including desk, phone, network connection, internet access, print services, and PC space
- You will provide documentation required to successfully execute/complete this engagement are accessible and accurate.
- You will handle project risk mitigation
- You will name and make available as necessary for the duration:
  - > A project leader (Client focal point)
  - > A sponsoring manager or executive
  - Installation platform(s) system administrator(s)
  - > Additional technical contacts who are participating in the installation and configuration
- You will assign at least one technical person during the implementation for the resolution of technical issues
- You will actively participate in the software installation and configuration
- You will provide as necessary, access to persons skilled in and knowledgeable of the Client hosted environment, including network topology and hosted server operating system configurations
- The Client Project Leader will participate in midpoint progress review meeting
- Network connections for servers and workstations
- Connectivity of the servers to the Internet (for portal access to Web content)
- Assigned static IP addresses for each server
- Addition of server hostnames to Client Domain Name Server (DNS)
- Internet access for our consulting personnel working on site
- Displays/keyboards/mice for each server.

In performing our services under this SOW and the applicable WO, we will rely upon any instructions, authorizations, approvals or other information provided to us by your project Manager or by any other personnel identified by your Project Manager.

## 4.2 **Project Assumptions**

The Services, fees and delivery schedule for this project are based upon the following assumptions.

- This SOW is considered the baseline scope document outlining Microsoft's responsibilities for the assistance. Any changes to those responsibilities will be considered a change in scope for the engagement. Any proposed change to the project scope must be put into written format and be submitted to MS during this engagement for review and consideration according to the change management process described above
- This SOW is generated based upon currently known information deemed to be accurate and correct
- All project resources will have the appropriate level of security access required to complete project-related efforts
- You staff will provide all content, graphics, data access, and essential project information in a timely manner
- You will provide all required hardware and software
- Work may be done off-site at the engagement manager and consultants joint discretion, but will be communicated to you ahead of time
- We will work with your staff to obtain temporary workspaces for team members that need to work onsite including: a desk, chair, telephone, and Internet access
- You will schedule the appropriate times to provide access to the network and other critical systems to perform work related to the completion of this project
- Your staff will assist in performing any system configurations required for the architected and approved system(s) to operate and will back systems up appropriately.



In partnership with





# **MOVE Act Solution**

Presented to Virginia State Board of Elections

June 3, 2011



Cloud Power

## DEMOCRACY LIVE VOTER INFORMATION TECHNOLOGIES

# Microsoft<sup>®</sup>

Dear Virginia State Board of Elections:

On behalf of Microsoft and Democracy Live, we would like to personally thank the Commonwealth of Virginia and the Secretary of State's office for the opportunity to present the Microsoft/Democracy Live *LiveBallot*<sup>™</sup> solution to provide electronic ballots to military and overseas voters.

*LiveBallot*<sup>™</sup> provides state and local jurisdictions with a simple, turn-key electronic balloting solution specifically designed to meet the requirements of both the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) and the Military and Overseas Voter Empowerment (MOVE) Act. *LiveBallot*<sup>™</sup>, now in its second generation, utilizes Microsoft's state-of-the-art Azure cloud computing technology to deliver to our clients a web-based electronic ballot solution that is secure, cost-effective and easy to deploy. It has been proven in over 250 jurisdictions throughout the U.S.

We have enclosed materials describing in detail the features and benefits of the *LiveBallot*<sup>m</sup> solution for your review. We would be happy to answer any questions that you may have. If it would be helpful, we can schedule a demonstration of *LiveBallot*<sup>m</sup> at your convenience.

Sincerely,

H. Kent Smith Microsoft Services SLGE Services Executive <u>kentsmi@microsoft.com</u>

Bryan Finney President Democracy Live, Inc. bryan@democracylive.com

#### "LiveBallot provides

options to the military that they never had before. It cuts the transit time in half for military voters waiting to get their ballots. It gives them plenty of time to get their ballot and return it in time to be counted."

- Dolores Gilmore, Election Manager, Kitsap County, WA

"The County and Democracy Live are to be congratulated for developing and deploying this modern tool to assist all voters in the County and around the world."

U.S. Congressman Norm Dicks

## 1 ABOUT THE MICROSOFT/DEMOCRACY LIVE TEAM

The Microsoft/Democracy Live team consists of professionals who know and understand elections – election technologists, former public officials and legal experts – professionals who know and understand what tools you need to run a successful election. This Team focuses on providing state-of-the-art balloting and voter information technology and solutions to each of the 200 million eligible voters in the U.S.

In response to the needs of overseas, absentee and disabled voters, Democracy Live developed and deployed one of the first electronic ballot delivery systems. Since 2007, the LiveBallot<sup>™</sup> platform has been successfully used in hundreds of U.S. jurisdictions to provide domestic, overseas, and disabled voters with a convenient and secure method of casting their ballots.

LiveBallot<sup>™</sup> is hosted on Azure, a highly secure, stable cloud environment built to reduce costs and offer unmatched scalability. With over one billion transactions every month, Microsoft Azure is proven to offer 99.9% uptime and reliability.



#### 2 Comprehensive MOVE Act Compliance and Much More

Microsoft and Democracy Live have partnered to bring you an end-to-end solution that offers an all-in-one, accessible, electronic ballot and voter information system. LiveBallot<sup>™</sup> is designed to dynamically grow along with all your future needs. In addition to electronic balloting for overseas and military voters, LiveBallot<sup>™</sup> offers turn-key modules including:

- Secure electronic transmission of the ballot and ballot package
- Automated ballot duplication or direct tabulation of the "home" printed ballot
- Fully accessible, HAVA compliant electronic ballots for disabled voters on any laptop
- Voter-specific accessible electronic sample ballots for all voters in the state

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#### 2.1 A Complete MOVE Act Solution

LiveBallot<sup>™</sup> has been designed specifically to provide full Move Act compliance. Microsoft and Democracy Live have deployed theLiveBallot<sup>™</sup> system in over 250 jurisdictions and delivered ballots to U.S. voters living and serving in over 60 countries around the world.

In a competitive review process, the U.S. Department of Defense and the Federal Voting Assistance Program chose the Microsoft/Democracy Live LiveBallot™

# platform as one of a select few systems that was approved for funding under the MOVE Act.

LiveBallot<sup>™</sup> is 100% MOVE ACT Compliant and features the following:

- > Voter-Specific Online Ballot Look-up
- > Printable Ballot and Mailing Instructions
- > Ballot Tracking to Confirm Receipt of Ballot
- > Voter Registration Confirmation
- > Voter-Specific Election and Balloting Information
- > State Specific Ballot Return Transmission

MOVE Act Requirements based on NASS Summary 11/6/2009

#### 2.2 Turn-Key Hosted Solution

*LiveBallot*<sup>™</sup> also offers a hosted suite of voter information tools that deliver voter specific balloting information. *LiveBallot*<sup>™</sup> provides election jurisdictions a turn-key voter information toolbox of electronic balloting applications.

# LiveBallot is feature packed to deliver real world solutions

- Millary Overseas Ballot Delivery
- 🗸 Absentee Bailot Delivery
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- Polling Place Look-up:
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# LiveBallot is highly customizable to meet your specific needs

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*LiveBallot*<sup>™</sup> has been designed to be ballot and voter registration vendor autonomous. *LiveBallot*<sup>™</sup> has been deployed in jurisdictions with virtually all the major tabulation vendors. A customized data importer has been created to ensure simple data loading at the state or local level.

Democracy Live team members administer the set-up of the election or management can be accomplished at the State and/or Jurisdiction level. Key features include:

- As a hosted solution there is no installation or hardware
  - Any typical Web browser can access the *LiveBallot™* system and administrative set-up tools
- Simple set-up
- Imports from election management and/or voter registration systems (file types: .txt, .csv, .xml, .edx)
  - No duplicate election set-up
- Voter-Specific Online Blank Ballot Printing
- Voter-Specific Online Ballot Marking and Ballot Printout
- 24/7 support (during elections)

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#### 2.3 LiveBallot \*\*\* is Highly Customizable

The user friendly *LiveBallot*<sup>™</sup> Administrative Tools also allow for customizing the look and feel of your website, as well as the ballot interface. The *LiveBallot*<sup>™</sup> Control Panel provides fine grained controls and customization to meet your specific needs.



#### Administrative Tools Designed by Elections Officials for Elections Officials

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#### **Key Control Panel Functions**

#### • Elections

- Set-up and import election files
- Customizable on screen instructions
- Reports
- Proofing election data
- Voter Access Reports
- Voter Ballot Returns
- Application Status
  - Turn on/off applications within LiveBallot™
- Theme Builder
- Upload Logo
- Edit banner text
- Edit website colors

- Users
  - Users and Permissions
- Logs
  - Election Audit Logs
  - Security Audit Logs
- Ballot Return Packages
  - Customizable Ballot Return Packages
  - Upload your own
    - Instructions to voters
    - Envelopes
    - Oath of Voter
    - Coversheets
  - Or use LiveBallot<sup>™</sup> recommended files

#### Sub-Accounts

- Allows for statewide elections set-up and county inheritance of statewide data (cutting down on duplicate efforts)
- Election Defaults
  - Set election defaults for statewide future elections

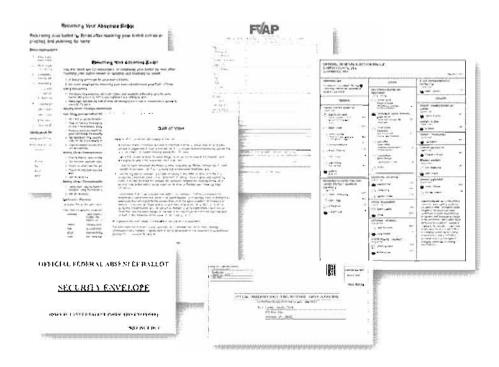


#### Example: Customize Return Ballot Packages

Upload your files or choose to use the *LiveBallot™* Default Files

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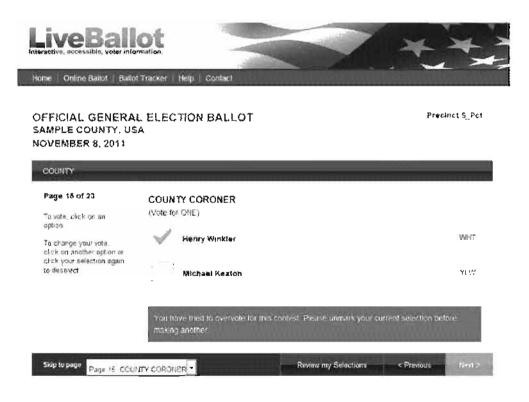
#### Example: Custom Ballot Package Forms



Administrative Tools also allow election officials to set-up online ballot setting such as:

- On-screen voting instructions
- Display ballot one contest per screen (DRE style) or as a scrolling screen (paper ballot)
- Voter alerts for No Selections
- Voter alerts on Undervotes (voting less than number of choices)
- Disallowing voter to continue upon Overvote
- Certified Write-In List

#### Example: Overvoted Contest



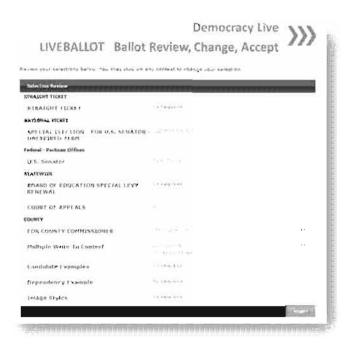
#### Example: Online Ballot

Voter clicks on their choice to select



#### Example: Online Ballot Review Screen

Voter can click "change" to return to online ballot and change selections or click "Accept" to accept their choices



## 3 AUTOMATED BALLOT DUPLICATION

One of the drawbacks for electronically-produced absentee ballots, in most systems, is that they cannot be read by a jurisdiction's tabulation system. Up to now the only solution was to manually duplicate the ballot onto a new, tabulation-compliant ballot. Even at a conservative estimate of 2 to 3 minutes per ballot, this manual duplication process is a costly drain on personnel resources during the busy election season. As a result, many jurisdictions have been reluctant to deploy electronic balloting to the wider voter community.

Not anymore. The Democracy Live's auto-duplication functionality allows election officials to create a machine-readable ballot in one step, saving time and resources for election administrators. By eliminating the time and trouble of manual ballot duplication, Microsoft enables election officials to offer electronic balloting to virtually anyone for whom an electronic ballot is more convenient.

- Integrates with *LiveBallot*<sup>™</sup> electronic ballot output
- Saves time
- Saves Resources
- REduces costs



#### "The Democracy Live

LiveBallot system is a marvelous example of a universal design. It provides a valuable resource on voter information for all citizens, including those with disabilities who often lack access to this critical information about candidates and issues."

Deborah Cook

Director of the

## 4 ACCESSIBLE ABSENTEE BALLOTING SYSTEM

*LiveBallot™* may be used domestically to assist voters with disabilities to vote independently from home, or to reduce the cost of elections. *LiveBallot™* could potentially replace expensive voting machines with HAVA Accessibility compliant laptops.

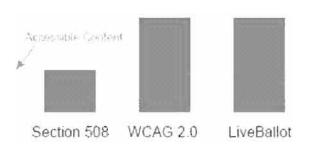
#### Case Study: Kitsap County, 2010 General Election

radisp: County, Washington provided LiveRallel as an accessible mathod of ballot marking and rature by the 2010 General Election. A survey of others with duabilities found.



#### 4.1 Built to Exceed Accessibility Standards

- Designed with a focus on accessibility exceeding Section 508 compliance by meeting WCAG 2.0
- Also certified by US Department of Health and Human Services to deliver accessible, Web-based electronic ballots to voters with disabilities
- ✓ Eligible for Section 261 HAVA Accessibility funding



#### Usability



## Microsoft Consulting Services Work Order

(For Microsoft Internal Purposes Only)	Work Order Number: 20110574
MCS (WO Type 1)- (Public Sector)	Project Code: 1-14YT927
	Client ID: U8841747
	Client Type: Major
	Vertical Industry: State & Local Government/Education
	Customer Purchase Order Number:

This work order is made pursuant to the Microsoft Master Services Agreement – State & Local (Non-Standard) VA-(VA Contract #100326-MCS) (#U8841747) (the "agreement") effective as of March 26, 2010, by and between Virginia Technologies Agency ("VITA") and Microsoft Corporation ("Microsoft," "MCS," "we," "us," or "our"). As an "Affiliate" of VITA, Virginia State Board of Elections is permitted to utilize the agreement and enter into Work Orders with us. Virginia State Board of Elections is referred to as "you" in this Work Order. The terms of the agreement are incorporated herein by this reference. Any terms not otherwise defined herein will assume the meanings set forth in the agreement. This work order is comprised of this cover page and the work order terms below, which are incorporated herein by this

Customer Invoice In	formation				
Name of Customer Virginia State Board of Elections		A/P Contact Name (This person receives invoices under this work order.)			
				Matthew Davis	
Street Address	1100 Bar	k St		Contact E-mail Address	<u>matth</u> ew. <u>davis@sbe.virginia.gov</u>
City	Richmon	ł	State/Province	Phone	(804)-864-8905
Chester			VA		
Country	USA		Postal Code 23219	Fax	(804) 371-0194
Invoicing					
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Source to confirm I	Per Diem li	mits – hotel, renta	l car, meals, etc.		•
Contact Name:		Contact E-mail ac	ddress:		Contact phone No.:
Web site address:					
Period of Performan	ce				
June 30, 2016. In o work order or an am you and we agree.	rder for us t endment to	o continue work aft this work order ide	er the expiration of entifying the new e	date, you ai expiration d	erein. This work order will expire on nd we must agree in writing to a new late and any other terms upon which
By Check: Micr	rosoft Ente	rprise Services, P	.O. Box 844510, I	Dallas, TX	rence to our invoice number: 75284-4510, or if by overnight eet, Fifth Floor, Dallas, TX 75202

By Wire: Microsoft Enterprise Services #844510, Acct 3750825354/ ABA#0260-0959-3, Bank of America, N.A. By ACH: Microsoft Enterprise Services, Acct#3750825354/ ABA#11100001-2, Bank of America, N.A.

Name of Customer	Same as above		Project leader (This person is your point of contact for all service-related matters under this work order.)
Street Address			Contact E-mail Address
City		State/Province	Phone
Country		Postal Code	Fax

By signing below the parties acknowledge and agree to be bound to the terms of the agreement and this work order.

Customer	Microsoft Affiliate
Name of Customer (please print)	Name
Virginia State Board of Elections	Microsoft Corporation
Signature	Signature
Name of person signing (please print)	Name of person signing (please print) David T. Gallagher
Title of person signing (please print)	Title of person signing (please print) Director of Contracts
Signature date	Effective Date

#### 1. Services.

We, will along with partner (Democracy Live) will perform for you, work outlined in the attached Statement of Work ("SOW") entitled, "Virginia State Board of Elections eBalloting Support" dated June 7, 2011. This engagement will be performed in accordance with the Microsoft Service Line Offering (SLO) SL1 Enterprise Strategy Projects. Please note, the aforementioned is an internal Microsoft designation for service catalog offering and is provided for Microsoft internal audit purposes only.

Any dates provided are estimates only. As this is a "Cloud" offering, some of the services will be performed at the place of performance identified on the cover page and other services will be performed at remote facilities. All off-site services will be coordinated with your project leader for the services. Because we are performing the services under your direction, based on an estimated period of performance and fees, we do not warrant that any services deliverables will be completed or be satisfactory to you within the estimated period or fees.

#### See Attached SOW

#### 2. Fees. (Fiscal Years are tied to the Commonwealth of Virginia's Fiscal Year Calendar.)

You will pay the following hourly rates and any reasonable out of pocket travel and living expenses (if any) for the individuals assigned. We reserve the right to utilize whichever labor categories in whatever quantities we determine, in our sole discretion, are appropriate to perform the services. Any total fee and labor hours stated are estimates only. The fees do not include fees for products. Unless otherwise specified in the invoice, you will pay us within 30 calendar days of the date of our invoice.

**NOTE:** Microsoft will charge the VA Board of Elections at its current hourly rates from its FY11 Public Sector Published Pricelist for the first year of the Contract ) June 2011 – June 2012). For subsequent years of the contract, Microsoft will charge VA Board of Elections either at its then current Published Sector Published Rates (when determined) or projected rates below (calculated by adding 5% year-over-year), whichever is less.

Labor Category/Activity	<u>Units</u>	Description	Rate	Proposed Cost
MGSI Consultant	360	Hours	\$73.00	\$26,280
Associate Technician	0	Hours	\$ 103.00	\$0
Technician	0	Hours	\$ 129.00	\$0
Technician I	0	Hours	\$ 155.00	\$0
Technician II	0	Hours	\$ 180.00	\$0
Technician III	0	Hours	\$ 206.00	\$0
Technician IV	0	Hours	\$ 232.00	\$0
Technician V	1250	Hours	\$ 250.00	\$312,500
MCS Associate Consultant	0	Hours	\$ 214.00	\$0
MCS Consultant	0	Hours	\$ 234.00	\$0
MCS Senior Consultant	120	Hours	\$ 256.00	\$30,720
MCS Project Manager	0	Hours	\$ 256.00	\$0
MCS Engagement Manager	60	Hours	\$ 256.00	\$15,360
MCS Practice Manager	0	Hours	\$ 271.00	\$0
MCS General Manager	0	Hours	\$ 271.00	\$0
MCS Principal Consultant	0	Hours	\$ 271.00	\$0
MCS Architectural Consultant	0	Hours	\$ 286.00	\$0
	0	TOTAL HOURS		\$384,860
Proposed Travel Cost				\$0
Estimated Total				\$384,860.00

#### Billable Costs – Year 1 (FY 12)

Labor Category/Activity	Units	Description	Rate	Proposed Cost
MGSI Consultant	40	Hours	\$73.00	\$2,920
Associate Technician	0	Hours	\$ 108.00	\$0
Technician	0	Hours	\$ 135.00	\$0
Technician I	0	Hours	\$ 163.00	\$0
Technician II	0	Hours	\$ 189.00	\$0
Technician III	0	Hours	\$ 216.00	\$0
Technician IV	0	Hours	\$ 244.00	\$0
Technician V	238	Hours	\$ 263.00	\$62,594
MCS Associate Consultant	0	Hours	\$ 205.00	\$0
MCS Consultant	0	Hours	\$ 234.00	\$0
MCS Senior Consultant	60	Hours	\$ 259.00	\$15,540
MCS Project Manager	0	Hours	\$ 259.00	\$0
MCS Engagement Manager	24	Hours	\$ 259.00	\$6,216
MCS Practice Manager	0	Hours	\$ 274.00	\$0
MCS General Manager	0	Hours	\$ 288.00	\$0
MCS Principal Consultant	0	Hours	\$ 274.00	\$0
MCS Architectural Consultant	0	Hours	\$ 288.00	\$0
	0	TOTAL HOURS		\$87,270
Proposed Travel Cost				\$0
Estimated Total				\$87,270.00

#### Billable Costs – Year 2 (FY 13)

#### Billable Costs – Year 3 (FY 14)

Labor Category/Activity	<u>Units</u>	Description		Rate	Proposed Cost
MGSI Consultant	40	Hours	1	677.00	\$3,080
Associate Technician	0	Hours	\$	114.00	\$0
Technician	0	Hours	\$	142.00	\$0
Technician I	0	Hours	\$	171.00	\$0
Technician II	0	Hours	\$	198.00	\$0
Technician III	0	Hours	\$	227.00	\$0
Technician IV	0	Hours	\$	256.00	\$0
Technician V	227	Hours	\$	276.00	\$62,652
MCS Associate Consultant	0	Hours	\$	215.00	\$0
MCS Consultant	0	Hours	\$	246.00	\$0
MCS Senior Consultant	60	Hours	\$	272.00	\$16,320
MCS Project Manager	0	Hours	\$	272.00	\$0
MCS Engagement Manager	24	Hours	\$	272.00	\$6,528
MCS Practice Manager	0	Hours	\$	288.00	\$0
MCS General Manager	0	Hours	\$	302.00	\$0
MCS Principal Consultant	0	Hours	\$	288.00	\$0
MCS Architectural Consultant	0	Hours	\$	302.00	\$0
	0	TOTAL HOURS			\$88,580
Proposed Travel Cost					\$0
Estimated Total					\$88,580.00

Labor Category/Activity	Units	Description	Rate	Proposed Cost
MGSI Consultant	40	Hours	\$81.00	\$3,240
Associate Technician	0	Hours	\$ 119.00	\$0
Technician	0	Hours	\$ 149.00	\$0
Technician I	0	Hours	\$ 179.00	\$0
Technician II	0	Hours	\$ 208.00	\$0
Technician III	0	Hours	\$ 238.00	\$0
Technician IV	0	Hours	\$ 269.00	\$0
Technician V	216	Hours	\$ 290.00	\$62,640
MCS Associate Consultant	0	Hours	\$ 226.00	\$0
MCS Consultant	0	Hours	\$ 258.00	\$0
MCS Senior Consultant	60	Hours	\$ 286.00	\$17,160
MCS Project Manager	0	Hours	\$ 286.00	\$0
MCS Engagement Manager	24	Hours	\$ 286.00	\$6,864
MCS Practice Manager	0	Hours	\$ 302.00	\$0
MCS General Manager	0	Hours	\$ 318.00	\$0
MCS Principal Consultant	0	Hours	\$ 302.00	\$0
MCS Architectural Consultant	0	Hours	\$ 318.00	\$0
	0	TOTAL HOURS		\$89,904
Proposed Travel Cost				\$0
Estimated Total				\$89,904.00

#### Billable Costs – Year 4 (FY 15)

Billable Costs – Year 5 (FY 16)

Labor Category/Activity	<u>Units</u>	Description	Rate	Proposed Cost
MGSI Consultant	40	Hours	\$85.00	\$3,400
Associate Technician		Hours	\$ 125.00	\$0
Technician		Hours	\$ 157.00	\$0
Technician I	0	Hours	\$ 188.00	\$0
Technician II	0	Hours	\$ 219.00	\$0
Technician III	0	Hours	\$ 250.00	\$0
Technician IV	0	Hours	\$ 282.00	\$0
Technician V	205	Hours	\$ 305.00	\$62,525
MCS Associate Consultant	0	Hours	\$ 237.00	\$0
MCS Consultant	0	Hours	\$ 271.00	\$0
MCS Senior Consultant	60	Hours	\$ 300.00	\$18,000
MCS Project Manager	0	Hours	\$ 300.00	\$0
MCS Engagement Manager	24	Hours	\$ 300.00	\$7,200
MCS Practice Manager	0	Hours	\$ 317.00	\$0
MCS General Manager	0	Hours	\$ 333.00	\$0
MCS Principal Consultant	0	Hours	\$ 317.00	\$0
MCS Architectural Consultant	0	Hours	\$ 333.00	\$0
	0	TOTAL HOURS		\$91,125
Proposed Travel Cost				\$0
Estimated Total				\$91,125.00

Year	Total Billable Cost		
Year 1 (FY '12)	\$ 384,860		
Year 2 (FY '13)	\$ 87,270		
Year 3 (FY '14)	\$ 88,580		
Year 4 (FY '15)	\$ 89,904		
Year 5 (FY '16)	\$ 91,125		
Total	\$ 741,739		

#### Total Estimated Billable Costs (FY 12 - FY 16)

- **3. Your responsibilities.** In addition to your responsibilities described in Section 1, "Services", above, you will, at your expense, provide us the following:
  - a. access to all necessary on-site facilities, including office space, telephones, analogue modems or PPTP, computer equipment, internet access, and test and monitoring equipment;
  - b. access to and copies of relevant technical information;
  - c. access to and sufficient time with your technical, management, and other personnel as necessary for us to perform the services; and
  - *d*. a project leader as your primary point of contact with us and to provide technical direction to our personnel performing the services.

#### 4. Ownership and license.

- a. **Products and fixes.** All products and fixes provided pursuant to this work order shall be licensed according to the terms of the license agreement packaged with or otherwise applicable to such product. You are responsible for paying any licensing fees associated with products. "**Product**" means any computer code, web-based services, product-related solutions or materials comprising commercially released, pre-release or beta products (whether licensed for a fee or no charge) and any derivatives of the foregoing we make available to you for license which is published by us, our affiliates, or a third party. "**Fixes**" means product fixes that we either release generally (such as commercial product service packs) or that we provide to you when performing services (such as workarounds, patches, bug fixes, beta fixes and beta builds) and any derivatives of the foregoing.
- b. Pre-existing work. All rights in any computer code or materials (other than products or fixes) developed or otherwise obtained independently of the efforts of a party under this work order ("pre-existing work") shall remain the sole property of the party providing that pre-existing work. During the performance of the services for this work order, each party grants to the other party (and our contractors as necessary) a temporary, non-exclusive license to use, reproduce and modify any of its pre-existing work provided to the other party solely for the performance of such services. Upon payment in full, we grant you a non-exclusive, perpetual, fully paid-up license to use, reproduce and modify (if applicable) our pre-existing work in the form delivered to you as part of the service deliverables for your internal business operations. "Service deliverables" means any computer code or materials (other than products or fixes) that we leave with you at the conclusion of our performance of service(s). Your licenses to our pre-existing work is conditioned upon your compliance with the terms of the agreement and this work order and the perpetual license applies solely to our pre-existing work that we leave to you at the conclusion of our performance of the services.
- c. Developments. Upon payment in full, we assign you joint ownership in all rights in any computer code or materials (other than products, fixes or pre-existing work) developed by us (or in collaboration with you) and provided to you in the course of performance of this work order ("developments"). "Joint ownership" means each party has the right to independently exercise any and all rights of ownership now known or hereafter created or recognized, including without limitation the rights to use, reproduce, modify and distribute the developments for any purpose whatsoever, without the need for further authorization to

exercise any such rights or any obligation of accounting or payment of royalties, except you will only exercise your rights for your internal business operations and you will not resell or distribute the developments to any third party. These use restrictions shall survive termination or expiration of this work order or the agreement. Each party shall be the sole owner of any modifications that it makes based upon the developments.

- d. Affiliates rights. You may sublicense the rights to the service deliverables granted hereunder to your affiliates, but your affiliates may not further sublicense these rights. Any sublicensing of the service deliverables to your affiliates as permitted by this Section 4 must be consistent with the license terms in the agreement and this work order. If "affiliate" is not defined in the agreement, it means (i) if you are a commercial entity, legal entities that you own, which own you, or which are under common ownership with you; and (ii) if you are a state or local government agency, any government agency, department, instrumentality, division, unit or other office of your state or local government that is supervised by or is part of you, or which supervises you or of which you are a part, or which is under common supervision with you; together with, as mandated by law, any county, borough, commonwealth, city, municipality, town, township, special purpose district, or other similar type of governmental instrumentality located within your state's jurisdiction and geographic boundaries; provided that a state and its affiliates will not, for purposes of this definition, be considered to be affiliates of the federal government and its affiliates. "Ownership" means more than 50% ownership.
- e. Open source license restrictions. Because certain third party license terms require that computer code be generally (i) disclosed in source code form to third parties; (ii) licensed to third parties for the purpose of making derivative works; or (iii) redistributable to third parties at no charge (collectively, "excluded license terms"), the license rights that each party has granted to any computer code (or any intellectual property associated therewith) do not include any license, right, power or authority to incorporate, modify, combine and/or distribute that computer code with any other computer code in a manner which would subject the other's computer code to excluded license terms.

Furthermore, each party warrants that it will not provide or give to the other party computer code that is governed by excluded license terms.

- f. Reservation of rights. All rights not expressly granted in this Section 4 are reserved.
- 5. Cost or Pricing Data. We will not, under any circumstances, accept work that would require the submission of cost or pricing data.

eBalloting-Portal Integration and Implementation Support for Virginia State Board of Elections

> \*VIRGINIA\* STATE BOARD of ELECTIONS

Statement of Work Prepared by:







21 June 2011



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## 1. OVERVIEW

## 1.1 Background

Microsoft Services will work with Democracy Live and the Open Source Digital Voting (OSDV) Foundation to develop, integrate, and deploy a comprehensive set of Uniformed and Overseas Citizens Absentee voting Act (OCAVA) voter services for the State Board of Elections (SBE) of the Commonwealth of Virginia. This solution will integrate Democracy Live **LiveBallot**<sup>m</sup> (Software as a Service) solution built on the Microsoft SQL Azure Platform.

## 1.2 Goals of the Engagement

The purpose of this engagement will be to deliver two (2) solutions that are part of a comprehensive set of UOCAVA voter services. Specific objectives for this engagement are as follows:

- Develop and deliver a Voter Portal solution for VA SBE that integrates the existing OSDV portal with the Microsoft-Democracy Live *LiveBallot™* solution
- Develop and deliver a Voter Services and Balloting Analytics solution for VA SBE
- Collaborate on data format and data feed mechanics for interchange between the OSDV Analytics solution and Democracy Live *LiveBallot™* solution
- Collaborate with VA SBE on data format and data feed mechanics for interchange between OSDV Analytics solution and existing VA SBE systems
- Collaborate with VA SBE on data format and data feed mechanics for interchange between the OSDV Portal solution and existing VA SBE systems
- Collaborate with OSDV and Democracy Live staff on integrations between the *LiveBallot™* hosted solutions and the OSDV Analytics solution
- Collaborate with VA SBE and Democracy Live on integration testing, release engineering, final user acceptance testing of the fully integrated OSDV Analytics solution and *LiveBallot*<sup>™</sup> system
- Develop and deliver documentation and reporting deliverables required by VA SBE
- Establish a continuing data collection system to provide reference data over time, detailing voter usage of all UOCAVA voter services, with data available in a common data format that will enable FVAP and others to analyze data over data and compared between VA and other election jurisdictions.

## **1.3 Proposed Solution Overview**

The Microsoft-Democracy Live-OSDV team will extend existing technologies for on-line identification of VA voters, for classification of voters under VA election law, for voter registration assistance, and for logging of voter usage of online voter services and voter registration record information. The result will consist of two distinct solutions:

• A VA Voter Portal that assists voters with status, eligibility, registration, absentee request, and eligibility to use the Democracy Live balloting solution;

• A VA Voter Services and Balloting Analytics that aggregates usage log information from the Portal, existing VA SBE systems, and the Democracy Live solution, creating consolidated data in a common data format.

Microsoft will work with VA SBE, OSDV and Democracy Live to identify existing standards-based data formats, and to create data interoperability between the systems. OSDV will also work with Democracy Live on transaction integration, in which a Portal user, when determined to be eligible for remote balloting, is directed to the Democracy Live *LiveBallot*<sup>TM</sup> solution in an integrated manner.

**LiveBallot**<sup>TM</sup> provides state and local jurisdictions with a simple, turn-key electronic balloting solution specifically designed to meet the requirements of both the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) and the Military and Overseas Voter Empowerment (MOVE) Act. **LiveBallot**<sup>TM</sup>, now in its second generation, utilizes Microsoft's state-of-the-art Azure cloud computing technology to deliver to our clients a web-based electronic ballot solution that is secure, cost-effective and easy to deploy. It has been proven in over 250 jurisdictions throughout the U.S.

The resulting total solution with provide UOCAVA voter services for VA SBE, from registration through ballot tracking, and will provide complete usage data and reporting of each voter service, including those already provided by VA SBE as well as those provided in this project.

## 1.3.1 Portal Solution

The Virginia Voter Services Portal is a Web application that will be used by UOCAVA voters to manage their responsibilities for maintaining the ability to vote overseas. Users initially access the system to identify themselves using information that is already in VA voter records - if the user is a registered voter. For those not registered to vote, the Portal provides assistance in determining eligibility to vote, collection of voter registration information, and providing a completed and correct voter registration form for the user to print, with full support for VA-specific requirements for forms use. For users who access the Portal using a set of current voter registration data, the Portal provides similar assistance in updating registration information, eligibility to vote absentee, UOCAVA status, and request for absentee ballot. Finally, the Portal also assists voters in determining eligibility to use the remote balloting *LiveBallot*<sup>m</sup> solution; for eligible users, the Portal directs the user to the appropriate *LiveBallot*<sup>m</sup> web page for beginning the remote balloting process.

The key features of project work on the Portal are:

- Use of existing OSDV VA UOCAVA solution for voter identification
- Use of existing support for import of VA voter records, extended to support the use of EMLbased common data formats recommended by IEEE 1622 standards body
- Use of existing voter registration forms wizard capability, extended to support the complete list of VA-required forms and form usage for registration, re-registration, and absentee request
- Implementation of VA-specific logic for eligibility voting, absentee voting, and use of balloting solution
- Extension of transaction logging capabilities to support Portal transaction log export using EMLbased common data formats recommended by IEEE 1622 standards body



- Integration with existing VA voter record systems, to obtain voter records; to obtain ballot information; to provide voter request information; and to provide transaction log information
- Integration with Democracy Live to transition UOCAVA user sessions for continue with ballot processing and other features of the Democracy Live solution.

## 1.3.2 Analytics Solution

The Voter Services and Balloting Analytics service is a Web application that will be used by VA SBE staff to aggregate information about voter activity from diverse sources:

- The Virginia Voter Services Portal: voter registration requests, updates, absentee and UOCAVA status lookups, absentee ballot requests
- Democracy Live LiveBallot<sup>™</sup> solution: balloting, ballot tracking, and other transactions supported by Democracy Live
- Existing VA voter records: UOCAVA voter status at end of an election cycle: ballot received and counted, ballot received but not counted, ballot not received.

The Analytics service aggregates these disparate record streams, and constructs a unified set of voterspecific records that both lists every voter action in a standard form, and also lists each voter's actions for the entire election cycle. The Analytics service supports common data formats (CDFs) in two ways: provides features to SBE staff to import data using CDFs; provides a feature to export the consolidated dataset, using CDFs. In addition, the Analytics service also provides basic statistics reporting. However, the main innovative feature of the Analytics service is the export functionality. Using CDFs, other parties, including FVAP, can obtain a complete set of VA-wide data, to compare or combine with data from other states, and to perform statistics and data mining beyond the statistics of the Analytics service's Web interface.

By supporting CDFs, the open-data and complete-data nature of the Analytics service will make the Analytics service equally useful to other elections organizations that require standards-based voter activity data aggregation.



# 2. PROJECT SCOPE

## 2.1 Areas within Scope

## 2.1.1 Envisioning Phase

The Envisioning phase will be used to identify discrete roles, responsibilities, team members and interface points across business, technology and managed services. At the start of the project, a kick-off meeting will be held to confirm our understanding of the deliverables, agree on a plan of activities and schedule key meetings including formal reviews. We will use this meeting to verify the appropriate resources are allocated, meetings are scheduled, expectations are set, the core project teams are introduced, and project control mechanisms are implemented.

During this phase we will perform the following activities:

- Describe the current business environment and requirements for this engagement
- Describe current Portal and Analytics solution architectures
- Assess Current Environment and collect solution requirements
- Develop detailed list of technical and functional requirements
- Document (or validate existing) Business and Technical Requirements for:
  - o A VA Voter Services Portal solution
  - o A VA Voter Services and Balloting Analytics service.

## 2.1.2 Planning Phase

The Planning Phase will involve the development of a solution and a detailed project plan for the remainder of the project. We will perform the following activities during this phase:

- Analyze VA SBE business and technical requirements to ensure they are addressed in the integrated OSDV solution set and Democracy Live *LiveBallot™* solution
- Define data format and data feed mechanics for interchange between the OSDV Analytics solution and Democracy Live *LiveBallot*<sup>™</sup> solution
- Define data format and data feed mechanics for interchange between OSDV Analytics solution and existing VA SBE systems
- Define data format and data feed mechanics for interchange between the OSDV Portal solution and existing VA SBE systems
- Define integrations between the *LiveBallot™* hosted solutions and the OSDV Analytics solution
- Develop a continuing data collection design/process to provide reference data over time detailing voter usage of all UOCAVA voter services, with data available in a common data format that will enable FVAP and others to analyze data over data and compared between VA and other election jurisdictions
- Develop a Functional Specification document.



## 2.1.3 Development Phase

The Development phase begins with the first iteration of development and culminates with the "functionality complete" milestone (or Beta release). During this phase, we will build and demonstrate the solution in your test laboratory environment. This phase will include the following activities:

- Setup the OSDV portal solution integrated with the *LiveBallot™* in your lab environment
- Setup the OSDV Voter Services and Balloting Analytics service in your lab environment
- Develop and execute test procedures to ensure business and technical requirements are satisfied against the integrated Portal and Analytics service solution set
- Demonstrate the integrated OSDV Portal and Analytics solution set integrated with the *LiveBallot™* solution to VA SBE personnel
- Demonstrate the OSDV Portal and Analytics solution set inter-operating with VA SBE systems.

### 2.1.4 Stabilization Phase

During The Stabilization phase, we will perform the following activities:

- We will conduct a test pilot for up to fifty (50) users in the production environment using the *LiveBallot™* tool integrated with the OSDV portal
- We will conduct acceptance testing procedures to ensure that the requirements identified in the Envisioning Phase are satisfied
- Perform remediation configuration activities on the *LiveBallot*<sup>™</sup> tool and OSDV portal integrations to address any issues/problems uncovered during the pilot test exercise
- We will develop a Test Report that documents Acceptance Test procedures and resulting using the pilot test users.

## 2.1.5 Deployment Phase

During this phase, we will perform the following activities:

- Execute operational test procedures from multiple remote locations to ensure the *LiveBallot*<sup>™</sup> and OSDV integrated portal is functioning properly
- Execute operational test procedures to ensure the OSDV Voter Services and Balloting Analytics is functioning properly
- Deploy the OSDV Portal and Analytics solution set integrated with the *LiveBallot™* solution in a Microsoft hosted environment
- Provide customer access to the solution set to allow execution of administrative procedures and to run reports
- Provide operational support during one (1) an election to ensure the eBalloting-OSDV portal integrated solution is made available and is functions as designed for Commonwealth of Virginia constituents.

## 2.1.6 Software Environments

The following environment will be needed for this project during both the development and production deployment aspects of this project:

- Cloud hosted ruby/rails application environments for test deployment of standalone Portal and Analytics systems to be established by OSDV within 4 weeks of project inception
- Microsoft hosted production environment to be established within 8 weeks of project inception.

## 2.1.7 Training and Knowledge Transfer

Informal knowledge transfer will be provided throughout the project. Informal knowledge transfer is defined as informal activities provided when Virginia State Board of Elections team members, associates, or contractors in concert with Microsoft team members. This may include: whiteboard discussions, email threads, Live Meeting conference calls and facilitated meetings on technical topics. No deliverables or meeting summary will be provided for these sessions or activities. There will no formal classroom training provided.

## 2.1.8 Areas Out of Scope

- We will not purchase (or provide) any hardware or software for this project
- Anything not excluded in this section and not listed in the above "Areas within Scope" is considered out of scope for this SOW.



# 3. PROJECT APPROACH, TIMELINE, AND SERVICE DELIVERABLES

## 3.1 Microsoft Solutions Framework

Microsoft Services leverages the Microsoft Solutions Framework (MSF), which is a five-phase project approach that has been executed across multiple customer engagements of various project types and sizes. Microsoft recommends this phased approach for projects and has seen customers to be highly successful with their deployments when they follow a similar phased approach. Microsoft will perform task activities in each of the five (5) MSF phases. The five phases are described below.

- Envisioning: Envisioning is about creating a technical vision via high level requirements and constraints and defining the projects work plan and work scope necessary to bring the technical vision to reality.
- Planning: Planning follows envisioning and ends in a milestone that has resulted in functional requirements and specifications that outline the system Architecture and Design.
- Build/Development: The Development phase begins with the first iteration of lab build out and culminates with the functionality complete milestone. All system functionality is validated in the lab environment and updates to the functional specification are made as required.
- Stabilization: The Stabilization phase system testing including user and performance testing. Each test must be accepted as per the metrics and constraints identified in planning phase. The stabilization phase culminates in a pilot.
- Deployment: The Deployment phase includes final release management, and the remaining end user client deployment. For this effort this is an end user communication and coordination issue. The deployment phase also includes the migration of data from the source systems to the target systems.

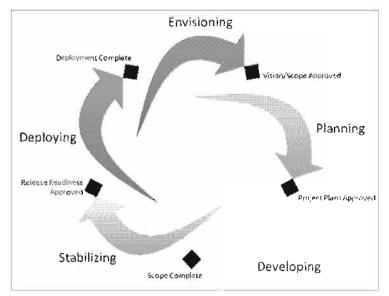


Figure 1 MSF Process Model Phases and Milestones



## 3.2 Approach

Our approach is summarized in the following subsections and identifies Microsoft team activities that will be conducted as well as VA SBE associated task activities. *Note: Prior to the start of the Envisioning Phase – Microsoft recommends that there be a pre-engagement call. During the call, we will review the approach for the engagement and VA SBE business owners that need to participate in the engagement.* 

### 3.2.1 Key Microsoft Activities

Key Activities for Microsoft during the project will include the following:

- Kick-off and Vision and Scope meeting
- Define roles and responsibilities for you and Microsoft
- Key contacts for both Customer and Microsoft
- Outline roles and responsibilities
- Outline key information needed to complete the project
- Identify lead person for Virginia Board of Elections
- Identify other dependencies that will or could affect or impact the engagement, such as availability of resources and personnel
- Confirm project approach
- Build and confirm project plan. This is a shortened high-level project plan for the engagement that outlines the tasks to be completed
- Execute the task activities described in Section 1 associated with the delivery using the MSF process
- Provide on-going status information to the customer and to the Microsoft team via Weekly Project Status Reports - during Envisioning and Planning activities only.

#### 3.2.2 Key Customer Activities

Key Activities for the Customer during this project will include the following:

- Function as lead in collecting information needed in the Envisioning and Planning Phases
- Provide environment information
- Provide the right personnel to assist with project activities
- Ensure availability of personnel (both Microsoft and Customer) and testing facilities
- Provide facilities for Microsoft personnel to work during the length of the project
- Provide an executive sponsor.

## **3.3 Estimated Timeline**

The estimated timeline for this project is shown in the table below:

Phase	Estimated Duration
Envisioning	Approximately 4 Weeks
Planning	Approximately 2 Weeks
Development	Approximately 6 Weeks
Stabilization	Approximately 3 Weeks
Deployment	Approximately 4 Weeks
Total	Approximately 19 Weeks

Table 1: Estimated Project Timeline

## 3.4 Key Service Deliverables and Acceptance Process

#### 3.4.1 Key Project Service Deliverables

The following is a list of the key project Service Deliverables that will be produced within the scope of this SOW. They must be reviewed and accepted under the process described later in this proposal.

Project Phase	Service Deliverable Name	Service Deliverable Description
Envisioning Phase	Vision Scope Document	Describes the solution concept, the architectural and technical designs used to create the solution and the way the team and project will be organized
		<ul> <li>This document will include:</li> <li>Background</li> <li>Problem Statement</li> <li>Opportunity Statement</li> <li>Project Vision and Scope</li> <li>Vision Statement</li> <li>Requirements (Business, User, Operational, System and Capacity)</li> <li>Project Phases and Objectives</li> <li>Solution Design Strategies</li> <li>Site Analysis Results</li> <li>Initial Risk Assessment</li> <li>Team model and roles</li> </ul>
	Project Plan	Provides a Gantt chart showing task activities, key milestones, resources needed and critical paths.
Planning Phase	Functional Specification Document	Architecture and Design document that details the architecture of the integrated OSDV and Democracy Live <i>LiveBallot™</i> solution.

Project Phase	Service Deliverable Name	Service Deliverable Description
Stabilization Phase	Test Report	Documents Test Plan procedures used, test executed, test results and remediation recommendations.
All Tasks	Weekly Status Report (To be provided during migration of users only)	Provides summary of tasks completed, tasks planned, hours worked, risks and suggested risk mitigation strategies

Table 2 Key Project Service Deliverables

#### 3.4.2 Service Deliverable Acceptance Process

At specified milestones throughout the project, we will submit completed project Service Deliverables for your review and approval. Within five (5) business days from the date of submittal, you must either:

- (i) Accept the Service Deliverable by signing, dating, and returning the Service Deliverable Acceptance Form (see Exhibit section), or
- (ii) Provide a written notice rejecting the Service Deliverable, including a single and complete list describing every reason for your rejection.

Service Deliverables shall be deemed accepted unless you provide a written rejection notice as described above. Your use or partial use of a Service Deliverable will constitute acceptance of that Service Deliverable.

Microsoft will correct problems with a Service Deliverable that are identified in the written rejection notice, as described above, and within the scope of the Service Deliverable, after which the Service Deliverable will be deemed accepted. Problems that are outside the scope of a Service Deliverable, and feedback provided after a Service Deliverable has been deemed accepted will be addressed as a potential change of scope pursuant to the Change Management process outlined in this SOW.

## 3.5 Project Governance Approach

#### 3.5.1 Communication Plan

The following will be used to provide formal communication during the course of the project:

- Working in conjunction with the Consultant and Customer Project Manager, the Engagement Manager will compile weekly status reports for distribution.
- Weekly engagement status meetings will be held to review the engagement overall status, the acceptance of deliverables, the project schedule, risks, assumptions review and open issues noted in the status report.



### 3.5.2 Issue/Risk Management Procedure

The following general procedure will be used to manage active project issues and risks. Active issues and risks will be monitored and reassessed on a weekly basis. Mutually agreed upon issue escalation and risk management processes will be defined at the outset of the project.

- Identify: Identify and document project issues (current problems) and risks (potential events that impact the project)
- Analyze and Prioritize: Assess the impact and determine the highest priority risks and issues that will be managed actively
- **Plan and Schedule**: Decide how high-priority risks are to be managed and assign responsibility for risk management and issue resolution
- Track and Report: Monitor and report the status of risks and issues and communicate issue resolutions
- **Control:** Review the effectiveness of the risk and issue management actions.

#### 3.5.3 Change Management Process

During the project either party may request in writing additions, deletions, or modifications to the services described in this SOW ("change"). We shall have no obligation to commence work in connection with any change until the estimated fee and schedule impact of the change is agreed upon in a written Change Request Form signed by the designated Project Managers from both parties.

Upon a request for a change, we shall submit the change on our standard change Request Form describing the change, including the estimated impact of the change on the project schedule, fees and expenses. The Change Management Process that will be employed is defined below. Both parties agree to follow this process and to use the Change Request Form:

- Identify and document
- Assess impact and prioritize
- Estimate required effort
- Approve / disapprove
- Assign responsibility
- Monitor and report progress
- Communicate change resolution.

Within five (5) consecutive business days of receipt of the proposed Change Request Form, you shall either indicate acceptance of the proposed change by signing the Change Request Form or advise us not to perform the change. If you advise us not to perform the change, then we shall proceed only with the original services. In the absence of your acceptance or rejection, we will not perform the proposed change.



#### 3.5.4 Escalation Process

The Microsoft Lead will work closely with your Project Manager, Sponsor, and other designees to manage Project issues, risks, and Change Requests, as described in Sections 3.5.2 and 3.5.3 above. The standard escalation process for review and approval and/or dispute resolution is as follows:

#### **Escalation Path**

- Project Team member (Microsoft or Customer)
- Project Manager (Customer)
- Microsoft Engagement Manager / Project Sponsor
- Microsoft Executive Leadership Team.

#### 3.6 Project Completion

The project will be considered complete when any of the following conditions is met:

- 1. All of the service deliverables identified within this SOW and any Change Requests accepted herein have been completed, delivered and accepted or deemed accepted; or
- 2. The fee provisions of the Work Order have been met; or
- 3. This SOW is terminated pursuant to the provisions of the agreement.



## 4. **PROJECT ORGANIZATION AND STAFFING**

## 4.1 **Project Organization Structure**

Our proposed Delivery Team and organization is graphically depicted in the diagram below. We will maintain a simple structure that eliminates overhead cost and provides an effective means for technical and contractual performance against the requirements.

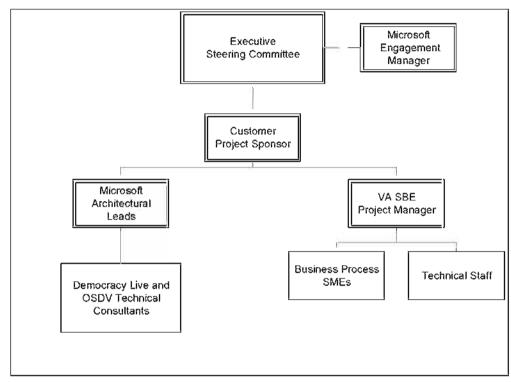


Figure 2: Project Program Management Organization



## 4.2 VA SBE Roles and Responsibilities

Role	Responsibilities	Project Commitment	
Project Sponsor	<ul> <li>Makes key project decisions and clears project roadblocks</li> </ul>	Part time role	
VA SBE Project Manager	<ul> <li>Project Manager</li> <li>Primary point of contact for Microsoft team</li> <li>Responsible for managing, owning, and coordinating the overall project and schedule</li> <li>Responsible for resource allocation, risk management, project priorities, and communication to executive management</li> <li>Manages day-to-day activities of the project</li> <li>Coordinates the activities of the team to deliver deliverables according to the project schedule</li> </ul>		
SMEs	<ul> <li>Responsible for participating / providing input into the Exchange 2010 design process Primary functional point of contact for the team</li> <li>Primary technical point of contact for the team that is responsible for technical</li> </ul>	Part time role, as requested	

Table 3 VA SBE Roles and Responsibilities

## 4.3 Microsoft Team Project Roles and Responsibilities

This section provides a brief overview of key project role responsibilities.

Role	Responsibilities	verable quality and your vith our services ct for billing issues,	
Engagement Manager	<ul> <li>Responsible for deliverable quality and your overall satisfaction with our services</li> <li>Single point of contact for billing issues, personnel matters, contract extensions and project status</li> </ul>		
MCS and Partner (Democracy Live and OSDV) Consultant(s)	<ul> <li>Defines the platform architecture</li> <li>Resolves high-level technical &amp; functional issues</li> <li>Provides input to the project schedule</li> <li>Single point of contact to MCS EM, MCS</li> </ul>	Full time role	



Role	Responsibilities	Project Commitment
	Architect, VA SBE and/or Partner Team	

Table 4 Microsoft Team Project Roles and Responsibilities

# 5. GENERAL CUSTOMER RESPONSIBILITIES AND PROJECT ASSUMPTIONS

#### 5.1 General Customer Responsibilities

Our delivery of the services are dependent on your involvement in all aspects of the services, your ability to provide accurate and complete information as needed, your timely and effective completion of the responsibilities as identified herein, the accuracy and completeness of the Assumptions, and timely decisions and approvals by your management. In addition to any Customer activities identified in the Approach section, you will perform the tasks, furnish the personnel, provide the resources, or undertake the responsibilities specified below.

- We will work with you to obtain workspace for each team member including desk, phone, network connection, internet access, print services, and PC space
- You will provide documentation required to successfully execute/complete this engagement are accessible and accurate.
- You will handle project risk mitigation
- You will name and make available as necessary for the duration:
  - > A project leader (Client focal point)
  - > A sponsoring manager or executive
  - Installation platform(s) system administrator(s)
  - > Additional technical contacts who are participating in the installation and configuration
- You will assign at least one technical person during the implementation for the resolution of technical issues
- You will collaborate on data formats and data interchange between existing VA SBE systems and Portal and Analytics
- You will collaborate on communication methods for interchange, and communication security methods
- You will participate in periodic function reviews of OSDV solution components, user acceptance testing, and training
- You will actively participate in the software installation and configuration
- You will provide as necessary, access to persons skilled in and knowledgeable of the Client hosted environment, including network topology and hosted server operating system configurations
- The Client Project Leader will participate in midpoint progress review meeting
- Network connections for servers and workstations
- Connectivity of the servers to the Internet (for portal access to Web content)
- Internet access for our consulting personnel working on site.

In performing our services under this SOW and the applicable WO, we will rely upon any instructions, authorizations, approvals or other information provided to us by your project Manager or by any other personnel identified by your Project Manager.



#### 5.2 Project Assumptions

The Services, fees and delivery schedule for this project are based upon the following assumptions.

- This SOW is considered the baseline scope document outlining Microsoft's responsibilities for the assistance. Any changes to those responsibilities will be considered a change in scope for the engagement. Any proposed change to the project scope must be put into written format and be submitted to MS during this engagement for review and consideration according to the change management process described above
- This SOW is generated based upon currently known information deemed to be accurate and correct
- All project resources will have the appropriate level of security access required to complete project-related efforts
- You staff will provide all content, graphics, data access, and essential project information in a timely manner
- You will provide all required hardware and software
- Work may be done off-site at the engagement manager and consultants joint discretion, but will be communicated to you ahead of time
- We will work with your staff to obtain temporary workspaces for team members that need to work onsite including: a desk, chair, telephone, and Internet access
- You will schedule the appropriate times to provide access to the network and other critical systems to perform work related to the completion of this project
- Your staff will assist in performing any system configurations required for the architected and approved system(s) to operate and will back systems up appropriately.

### Microsoft Consulting Services Work Order

(For Microsoft Internal Purposes Only)	Work Order Number: 20110616
MCS (WO Type 1)- (Public Sector)	Project Code: 1-1DN679H
	Client ID: U8841747
	Client Type: Major
	Vertical Industry: State & Local Government/Education
	Customer Purchase Order Number:

This work order is made pursuant to the Microsoft Master Services Agreement – State & Local (Non-Standard) VA-(VA Contract #100326-MCS) (#U8841747) (the "agreement") effective as of March 26, 2010, by and between Virginia Technologies Agency ("VITA") and Microsoft Corporation ("Microsoft," "MCS," "we," "us," or "our"). As an "Affiliate" of VITA, Virginia State Board of Elections is permitted to utilize the agreement and enter into Work Orders with us. Virginia State Board of Elections is referred to as "you" in this Work Order. The terms of the agreement are incorporated herein by this reference. Any terms not otherwise defined herein will assume the meanings set forth in the agreement. This work order is comprised of this cover page and the work order terms below, which are incorporated herein by this

Customer Invoice In	formation					
Name of Customer	Virginia State Board of Elections		A/P Contact Name (This person receives invoices under this work order.)			
				Matthew Davis		
Street Address	1100 Bar	ık St		Contact E-mail Address	<u>matth</u> ew. <u>davis@sbe.virginia.gov</u>	
City	Richmon	d	State/Province	Phone	(804)-864-8905	
Chester		_	VA		()	
Country	USA	A Postal Code 23219		Fax	(804) 371-0194	
Invoicing						
during the previous address shown abov Customer must Customer require and send actual F	period. Or re. <b>Select O</b> s Purchase PO to Micro ot require P	ur invoices for pay ne: Order for payment soft.	ment will be direct	e indicate	es performed and expenses incurred ar representative for payment at the Purchase Order No. here Accounts Payable Name and	
Source to confirm I	Per Diem li	mits – hotel, renta	l car, meals, etc.	(if applica	ible):	
Contact Name:		Contact E-mail address:			Contact phone No.:	
Web site address:						
Period of Performance						
June 30, 2016. In o work order or an am you and we agree.	rder for us t endment to	o continue work aft this work order ide	er the expiration on entifying the new e	date, you a expiration o	erein. This work order will expire on nd we must agree in writing to a new date and any other terms upon which	
By Check: Micr	osoft Ente	rprise Services, P	.O. Box 844510, I	Dallas, TX	rence to our invoice number: 75284-4510, or if by overnight eet, Fifth Floor, Dallas, TX 75202	

By Wire: Microsoft Enterprise Services #844510, Acct 3750825354/ ABA#0260-0959-3, Bank of America, N.A. By ACH: Microsoft Enterprise Services, Acct#3750825354/ ABA#11100001-2, Bank of America, N.A.

Name of Customer	Same as above		Project leader (This person is your point of contact for all service-related matters under this work order.)
Street Address			Contact E-mail Address
City		State/Province	Phone
Country		Postal Code	Fax

By signing below the parties acknowledge and agree to be bound to the terms of the agreement and this work order.

Customer	Microsoft Affiliate
Name of Customer (please print)	Name
Virginia State Board of Elections	Microsoft Corporation
Signature	Signature
Name of person signing (please print)	Name of person signing (please print) David T. Gallagher
Title of person signing (please print)	Title of person signing (please print) Director of Contracts
Signature date	Effective Date

#### 1. Services.

We will along with partner (Democracy Live) will perform for you work associated with this engagement. This engagement will be performed in accordance with the Microsoft Service Line Offering (SLO) SL1 Enterprise Strategy Projects. Please note, the aforementioned is an internal Microsoft designation for service catalog offering and is provided for Microsoft internal audit purposes only.

Technical activities associated with these Service Line Offerings are provided in the attached Statement of Work ("SOW") entitled, "eBalloting-Portal Integration and Implementation Support for Virginia State Board of Elections" dated June 21, 2011. Any dates provided are estimates only. As this is a "Cloud" offering, some of the services will be performed at the place of performance identified on the cover page and other services will be performed at remote facilities. All off-site services will be coordinated with your project leader for the services. Because we are performing the services under your direction, based on an estimated period of performance and fees, we do not warrant that any services deliverables will be completed or be satisfactory to you within the estimated period or fees.

#### See Attached SOW

#### 2. Fees.

You will pay the following hourly rates and any reasonable out of pocket travel and living expenses (if any) for the individuals assigned. We reserve the right to utilize whichever labor categories in whatever quantities we determine, in our sole discretion, are appropriate to perform the services. Any total fee and labor hours stated are estimates only. The fees do not include fees for products. Unless otherwise specified in the invoice, you will pay us within 30 calendar days of the date of our invoice.

Labor Category/Activity	<u>Units</u>	Description	Rate	Proposed Cost
Associate Technician	0	Hours	\$ 103.00	<u>\$0</u>
Technician	0	Hours	\$ 129.00	<u>\$0</u>
Technician I	0	Hours	\$ 155.00	<u>\$0</u>
Technician II	0	Hours	\$ 180.00	<u>\$0</u>
Technician III (Democracy Live)	1580	Hours	\$ 206.00	<u>\$325,480</u>
Technician IV	0	Hours	\$ 232.00	<u>\$0</u>
Technician V	0	Hours	\$ 250.00	<u>\$0</u>
MCS Associate Consultant	0	Hours	\$ 214.00	<u>\$0</u>
MGD Consultant (Test & QA)	400	Hours	\$ 73.00	<u>\$29,200</u>
MCS Senior Consultant (Arch)	160	Hours	\$ 256.00	<u>\$40,960</u>
MCS Principal Consultant	0	Hours	\$ 276.00	<u>\$0</u>
MCS Project Manager	0	Hours	\$ 256.00	<u>\$0</u>
MCS Engagement Manager	120	Hours	\$ 256.00	<u>\$30,720</u>
MCS Practice Manager	0	Hours	\$ 271.00	<u>\$0</u>
MCS General Manager	0	Hours	\$ 271.00	<u>\$0</u>
MCS Principal Consultant	0	Hours	\$ 271.00	<u>\$0</u>
MCS Architectural Consultant	0	Hours	\$ 286.00	<u>\$0</u>
	2260	TOTAL HOURS		<u>\$426,360</u>
Proposed Travel Cost				<u>\$0</u>
Estimated Total				\$426,360.00

- 3. Your responsibilities. In addition to your responsibilities described in Section 1, "Services", above, you will, at your expense, provide us the following:
  - access to all necessary on-site facilities, including office space, telephones, analogue a. modems or PPTP, computer equipment, internet access, and test and monitoring equipment;
  - access to and copies of relevant technical information; b.

- c. access to and sufficient time with your technical, management, and other personnel as necessary for us to perform the services; and
- *d.* a project leader as your primary point of contact with us and to provide technical direction to our personnel performing the services.

#### 4. Ownership and license.

- a. **Products and fixes.** All products and fixes provided pursuant to this work order shall be licensed according to the terms of the license agreement packaged with or otherwise applicable to such product. You are responsible for paying any licensing fees associated with products. "**Product**" means any computer code, web-based services, product-related solutions or materials comprising commercially released, pre-release or beta products (whether licensed for a fee or no charge) and any derivatives of the foregoing we make available to you for license which is published by us, our affiliates, or a third party. "**Fixes**" means product fixes that we either release generally (such as commercial product service packs) or that we provide to you when performing services (such as workarounds, patches, bug fixes, beta fixes and beta builds) and any derivatives of the foregoing.
- **Pre-existing work.** All rights in any computer code or materials (other than products or fixes) developed or otherwise obtained independently of the efforts of a party under this work order ("pre-existing work") shall remain the sole property of the party providing that pre-existing work. During the performance of the services for this work order, each party grants to the other party (and our contractors as necessary) a temporary, non-exclusive license to use, reproduce and modify any of its pre-existing work provided to the other party solely for the performance of such services. Upon payment in full, we grant you a non-exclusive, perpetual, fully paid-up license to use, reproduce and modify (if applicable) our pre-existing work in the form delivered to you as part of the service deliverables for your internal business operations.
   "Service deliverables" means any computer code or materials (other than products or fixes) that we leave with you at the conclusion of our performance of service(s). Your licenses to our pre-existing work is conditioned upon your compliance with the terms of the agreement and this work order and the perpetual license applies solely to our pre-existing work that we leave to you at the conclusion of our performance of the services.
- c. Developments. Upon payment in full, we assign you joint ownership in all rights in any computer code or materials (other than products, fixes or pre-existing work) developed by us (or in collaboration with you) and provided to you in the course of performance of this work order ("developments"). "Joint ownership" means each party has the right to independently exercise any and all rights of ownership now known or hereafter created or recognized, including without limitation the rights to use, reproduce, modify and distribute the developments for any purpose whatsoever, without the need for further authorization to exercise any such rights or any obligation of accounting or payment of royalties, except you will only exercise your rights for your internal business operations and you will not resell or distribute the developments to any third party. These use restrictions shall survive termination or expiration of this work order or the agreement. Each party shall be the sole owner of any modifications that it makes based upon the developments.
- Affiliates rights. You may sublicense the rights to the service deliverables granted d. hereunder to your affiliates, but your affiliates may not further sublicense these rights. Any sublicensing of the service deliverables to your affiliates as permitted by this Section 4 must be consistent with the license terms in the agreement and this work order. If "affiliate" is not defined in the agreement, it means (i) if you are a commercial entity, legal entities that you own, which own you, or which are under common ownership with you; and (ii) if you are a state or local government agency, any government agency, department, instrumentality, division, unit or other office of your state or local government that is supervised by or is part of you, or which supervises you or of which you are a part, or which is under common supervision with you; together with, as mandated by law, any county, borough, commonwealth, city, municipality, town, township, special purpose district, or other similar type of governmental instrumentality located within your state's jurisdiction and geographic boundaries; provided that a state and its affiliates will not, for purposes of this definition, be considered to be affiliates of the federal government and its affiliates. "Ownership" means more than 50% ownership.

e. Open source license restrictions. Because certain third party license terms require that computer code be generally (i) disclosed in source code form to third parties; (ii) licensed to third parties for the purpose of making derivative works; or (iii) redistributable to third parties at no charge (collectively, "excluded license terms"), the license rights that each party has granted to any computer code (or any intellectual property associated therewith) do not include any license, right, power or authority to incorporate, modify, combine and/or distribute that computer code with any other computer code in a manner which would subject the other's computer code to excluded license terms.

Furthermore, each party warrants that it will not provide or give to the other party computer code that is governed by excluded license terms.

- f. Reservation of rights. All rights not expressly granted in this Section 4 are reserved.
- 5. Cost or Pricing Data. We will not, under any circumstances, accept work that would require the submission of cost or pricing data.

#### Evaluation of Technology Options for Providing Advanced UOCAVA Solutions to Virginia

#### I. Introduction

ES&S and Scytl wish to partner with the Virginia State Board of Elections for a research and development project designed to further the body of knowledge and strengthen the concepts and technology for advanced UOCAVA solutions. This project will be targeted at specific Virginia customs and scenarios but will consider application to other similar jurisdictions. Technology solutions will be examined in the following technology categories for significance, sustainability, impact, innovation, and scalability:

- Accessibility
- Secure Electronic Return
- Mobile Voting Station

This project will employ a thorough and established research methodology and will be structured in distinctive phases. The research methodology includes data gathering, testing and the review of technology, tools, processes and practices, the development of findings, recommendations and deliverables, and the dissemination of work products. All research, analysis, and findings of the project will be transferrable to other jurisdictions and will likely be a foundational project in the development of future UOCAVA voting.

The project will be organized into two structured stages. The first stage will provide for the research and technology analysis. The second stage will consider a proof of concept and reporting.

For each category, the first stage will consider the prior research, socio-demographic issues, stakeholder concerns, potential technology solutions, and the business case for each technology solution option. The following are potential questions that should be addressed during the first stage:

- What are the high-level screening criteria and immutable technical and business requirements for each technology category? These represent the end user and stakeholder needs.
- What provisions in each of these categories are potentially helpful for Virginia UOCAVA voters?
- What technology options are available or could be developed to provide these provisions and meet the technical and business requirements?
- What procedural and administrative changes would be required to implement these technologies?
- What benefits and risks do these present over the current UOCAVA processes?

- Is it feasible to make these technological and procedural changes to the current voting paradigm?
- What is the business case for each of these technology options? (i.e. cost-benefit ratio, initial cost vs. ongoing cost)

The first phase will conclude with a technology white paper examining the options for each of the categories and how each one addresses:

- significance to UOCAVA voters,
- sustainability and cost-effectiveness over time,
- impact to UOCAVA voters and local election officials,
- scalability to address future needs, and
- return on investment for tangible items (monetary) and intangible (improvements to absentee voting).

The second stage will begin with a selection of the most promising technology options to include in a technology proof of concept as a pilot program. The proof-of-concept (PoC) will provide validation of research and return valuable feedback from stakeholders. The PoC will also produce quantitative data which can be used to draw reliable and reputable conclusions. Depending on the technology selected by the Virginia State Board of Elections, this pilot could be executed in select counties for an official election or in a private or mock election environment. At the close the project, Virginia will retain the pilot system for possible future use.

#### II. Technology Categories

#### i. Accessibility

The accessibility technology category would explore solutions for providing assistive technologies to voters with disability issues. The research and proof of concept efforts will focus on how to provide assistance in a reliable and private way to voters in stateside military hospitals as well as overseas locations. The technology options will address the following issues:

- Blindness
- Visual impairment such as low vision or color blindness
- Manual dexterity disability
- Cognitive issues
- Hearing disabilities
- Mobility disabilities
- Speech disability
- English learned as a second language

• Dyslexia

#### ii. Secure Electronic Return

The secure electronic return category will explore the security and administrative requirements for technology solution that provide secure electronic return. This will cover the use of electronic mail, fax, secure transfer, and other electronic communication channels. This research will explore how to provide electronic return to meet the following criteria:

- Eligibility. Only authorized voters should be able to vote.
- Privacy. The technology has to protect voter privacy, concealing the relation between voter and his/her cast vote, and ensuring that the voter's choice will remain anonymous.
- Integrity. A technology has to protect the vote against manipulation once it is cast and until it is counted.
- Voter verifiability. Voters must have the possibility to check if their votes have been cast as intended and accurately recorded.
- Voter inclusion. Voters must have the possibility to verify the inclusion of his/her vote in the final tally.
- Prevention of intermediate results. The technology shall prevent the disclosure of intermediate results before the election is closed.
- Ballot box accuracy. Protection against the addition of bogus ballots or the elimination of valid ballots (ballot stuffing).
- Coercion and vote buying resistance. One of the main concerns of remote voting channel is that it facilitates coercion or vote buying. Therefore, it is important to verify if the channel facilitates these practices or includes countermeasures to mitigate them.
- Channel reliability. Ability to detect delivery delays or denial of service attacks in an appropriate timeframe.

#### iii. Mobile Voting Station

The technology category will explore the idea of sending mobile voting stations with military deployments. This could be a suitcase-sized voting station which contains all the necessary provisions for a voter to conduct absentee ballot processes while deployed. There is potential for this technology to impact voters of Navy ships and those deployed into combat zones. The research will explore the potential for this technology, the requirements surrounding its deployment, and its potential impact on the military units which would utilize it.

#### III. Project Management and Oversight

To execute the project, Virginia would work ES&S and Scytl as well as two seasoned academic researchers from the grant award date through the 2012 General Election. The State Board of Elections would provide overall project direction and decisions for the project and research teams who will work on their behalf to perform the activities in the project.

#### i. Project Organization

#### **Project Director**

The Virginia State Board of Elections will serve as the project director. The project director manages the strategic aspects of the project, oversees the steering committee, reviews major deliverables, and provides direction to the project manager.

#### **Project Steering Committee**

The project steering committee will be comprised of the project director, project manager, key personnel from the ES&S and Scytl, high level stakeholders, and research experts. The steering committee will provide guidance to the project director and will ensure alignment of project with Virginia's strategic goals and objectives.

#### **Project Manager**

Scytl will provide the project manager for the duration of effort. The project manager is responsible for the day to day operations, will coordinate the entire team involved in the project and ensure the appropriate execution. The project manager will interact directly with the State of Virginia and FVAP (as needed), providing expert background on these types of projects.

Scytl's project management team combines deep election technology expertise and strategy capabilities to cover the entire scope of election modernization - from advising governments in developing an election modernization strategy to recommending and implementing solutions for optimizing governments' current infrastructure and applications. Our project managers take the time to analyze the current situation in order to bring the best strategic plan to face new challenges and accompany the customer, every step of the way.

#### Project Team

The project team will be comprised of members of the election experts from Scytl and ES&S, to include ES&S's local component in Virginia – PrintElect. The project team will report to the project manager and will be responsible for involving stakeholders at all levels and performing various project tasks.

#### **Research Team**

The research team will be comprised of members of Scytl's Research and Development department along with Thad Hall and Michael Alvarez. In their academic careers, these researchers have focused on elections, voting behavior, election technology, and research methodologies. The addition of these experts will enhance the quality of the program's research, assist in the technology evaluation, and provide insight into tackling some of the prevalent challenges facing UOCAVA voters.

#### Stakeholders

The project team will work with the Virginia State Board of Elections to ensure all stakeholders are considered and given the opportunity to participate in the project's activities and steering commit. This includes representatives from the Virginia National Guard, representatives from Virginia military hospitals, and local election officials.

#### ii. Project Resources

#### Aaron Wilson, Scytl Project Engineer

Mr. Wilson serves Scytl as a project manager and engineer for its U.S.-based electoral modernization projects. He has managed multiple electoral modernization projects for a dozen counties and states in recent years. Mr. Wilson joined Scytl from a background in both the elections and defense industries. He was previously an auditor for the Florida Division of Elections' Bureau of Voting System Certification. Before joining Scytl he was an embedded software engineer for Lockheed Martin's information assurance department. With the Florida Division of Elections, Aaron tested various voting systems at the state and county level and is an expert in a variety of voting technologies. Mr. Wilson is a Systems Security Certified Practitioner (SSCP) and received his Bachelor of Science in Computer Engineering from Florida State University.

In this project he will coordinate Scytl's efforts in all the areas required for a successful completion.

#### Peter Zelechoski, ES&S Vice President International Product Development

Mr. Zelechoski has 9 years experience in the voting systems business sector working at county and state levels in the U.S. and in international countries defining, customizing, deploying and operating voting systems in elections. Mr. Zelechoski has experience as president, board, committee chair and committee member levels for large and small non-profit and not-for-profit groups. With 30+ years experience in computer systems, he has hands-on experience with data interchange in financial, business, and election

applications and as an architect for computer systems integration across platforms, networks, and security boundaries. Mr. Zelechoski is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), a member of IEEE P1622, Voting Systems Electronic Data Interchange standards workgroup, and a member OASIS EML task group (Election Markup Language). He has a Master of Business Administration in Technology Management.

#### Ingrid Giordano, Scytl Regional Sales Manager

Ms. Giordano serves Scytl as a Sales Manager and Elections Specialist for its U.S. based electoral modernization projects. She has 20+ years of experience working for voting systems industry leaders. She was previously the Election Services Manager and Public Relations Manager for Global Elections Systems (Diebold/Premier). She was the Virginia Regional Sales Manager for Advanced Voting Solutions and Sales Director for Vote Here of Bellevue, WA. Ms. Giordano has also served Sequoia Voting Solutions and Dominion Voting Systems as Elections Specialist and Customer Service Manager in New York State. Ingrid has certified, sold, implemented, installed and supported election solutions in 25 US states and Canada. Ms. Giordano is based in Henrico, VA.

#### Tyler Lincks, Virginia Account Manager for Printelect

Mr. Lincks serves Printelect as the Virginia Account Manager addressing the needs of Virginia localities with voting equipment, service and supplies. He has 20 years of proven performance in elections management and operations in the private and public sectors in 32 states and Canada. Established and managed infrastructure for training, implementation, and technical support across a variety of elections platforms, including touch screen, optical scan systems and e-voting solutions. Mr. Lincks began his career at the State Board of Elections in Virginia and has served the elections industry with Global Election System (Diebold/Premier), Advanced Voting Solutions, Sequoia Voting Solutions/ Dominion Voting Systems. He has also contributed as a voting member of the Election Technology Council. Mr. Lincks is based in Henrico, VA.

#### Jordi Puiggali, Scytl VP Research and Development

Mr. Puiggali has headed Scytl's Research & Development Department since the formation of the company. Mr. Puiggali has been instrumental in the development of Scytl's technology and intellectual property, co-authoring numerous international patents on application-level cryptography and e-voting security. Prior to joining Scytl, Mr. Puiggali was the Technical Director for PKI and security projects at the IT department of the Autonomous University of Barcelona. Mr. Puiggali has also actively collaborated with the cryptographic research group of the Department of Computer Science at the

Autonomous University of Barcelona where he co-directed research projects on PKI and applied cryptography. Mr. Puiggali is a security expert and has participated as a speaker and lecturer in numerous international conferences on computer security and applied cryptography. Mr. Puiggali has a bachelor degree in Computer Engineering from the *Universitat Autônoma de Barcelona*.

In this project he will participate in assessing and documenting the different technology options, providing insight on improvements and potential software implementations.

#### Thad E. Hall, Ph.D.

Thad Hall is an associate professor of political science at the University of Utah. His primary research is in the area of public administration and public policy, with a focus on election administration and policy development in legislatures. He has authored or coauthored five books, most recently, *Electronic Elections: The Perils and Promise of Digital Democracy* (Princeton University Press) and *Abortion Politics in Congress: Strategic Incrementalism and Policy Change* (Cambridge University Press).

Hall has also published more than 20 research articles and book chapters and his research has been supported by The Pew Charitable Trusts, Carnegie Corporation of New York, the Election Assistance Commission, the Smith Richardson foundation, and the IBM Center for the Business of Government. He has testified before the United States Election Assistance Commission and the United States Senate Judiciary Committee.

Hall has conducted many studies on election administration and reform, including studies on Internet voting, electronic voting, election auditing, public attitudes toward various aspects of the voting process, poll worker attitudes toward the election process, and observational studies of election administration in the United States and abroad.

He has a Ph.D. from the University of Georgia (2002), a Masters in Public Administration from Georgia State University (1992) and a B.A., with honors in political science, from Oglethorpe University (1990). Before coming to the University of Utah, he worked as a Program Officer for The Century Foundation in Washington, D.C., a policy analyst for the Southern Governors' Association in Washington, D.C., and in various positions for Georgia Governor Zell Miller.

Mr. Hall will participate as a member of the project's research team.

#### R. Michael Alvarez, Ph.D

R. Michael Alvarez received his B.A. from Carleton College, and his Ph.D. from Duke University, both in political science. He has taught at the California Institute of Technology his entire career, focusing on elections, voting behavior, election technology, and research methodologies. He has written or edited a number of books (most recently, New Faces, New Voices: The Hispanic Electorate in America) and scores of academic articles and reports.

He has studied elections throughout the world, including recent research in Argentina and Estonia, and has worked closely with public officials in many locations to improve their elections. Alvarez's research has been funded by the National Science Foundation, the John S. and James L. Knight Foundation, the Pew Charitable Trusts and JEHT Foundation, the Carnegie Corporation of New York, and the John Irvine Foundation. He was named to the Scientific American 50 in 2004 for his research on voting technologies. Alvarez is a Fellow of the Society for Political Methodology, co-editor of the journal Political Analysis, and co-director of the Caltech/MIT Voting Technology Project.

Mr. Alvarez will participate as a member of the project's research team.

#### Jesús Choliz, Scytl Security and Accessibility Expert

Jesús Choliz joined Scytl as a Security Expert in the Research and Development Department (R&D) where he participates in securing the solutions developed by Scytl, and performing security audits. He has more than 10 years of experience in IT Security, dedicating 6 of them at the multinational consulting firm Ernst & Young. As the Manager of the IT Audit Department at Ernst & Young, Jesús has performed audits and advisory projects in security issues for the most important companies of Spain, including public sector, financial entities, assurance companies, and large infrastructure and logistic companies. Prior to joining at Scytl and working for Ernst & Young, Jesús was working in the R&D Department of a Software Development Company focused in auditing and monitoring systems (Tango/04). He is CISA (Certified Information Systems Auditor), CISM (Certified Information Security Manager) and CRISC (Certified in Risk and Information Systems Control) by ISACA, PMP (Project Management Professional) certified by Project Management Institute (PMI), and ISO27001 Lead Auditor by BSI. He is member of Information Systems Audit and Control Association (ISACA), ISMS-Forum, and PMI.

In this project he will participate in assessing the security, accessibility, and risks related to the different technology options, as well as to the software developed for the PoC, providing expertise and insight on improvements and potential changes.

#### Gabriel Dos Santos, Scytl VP Software Development

Mr. Dos Santos joined Scytl as Technical Manager in March 2004 and is currently the Vice-President of Software Engineering. In his current position, Mr. Dos Santos is responsible for the software development and engineering of Scytl's family of software

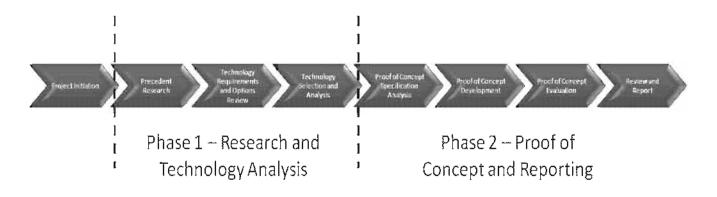
solutions and for the implementation of these solutions in commercial projects. In his previous position at Scytl as Technical Manager for Pnyx.core, Mr. Dos Santos was instrumental in the development and evolution of Scytl's core security solution for Internet voting and participated in numerous projects in Europe, Asia and America. Mr. Dos Santos has over 12 years of IT experience in software development working for companies in Spain and Argentina in projects for the United Nations, Bank Boston, Banco Sabadell, T-Systems and the Catalan government. Mr. Dos Santos holds an M.S. degree in Computer Science from the University of Buenos Aires.

In this project he will lead the development tasks required for the Proof of Concept software.

#### IV. Project Proposal

The proposed approach to researching and piloting potential technology options for future UOCAVA voting will follow structured stages outlined below:

- Project Initiation
- Phase 1: Research and Technology Analysis
  - Precedent Research
  - o Technology Requirements and Options Review
  - o Technology Selection and Analysis
- Phase 2: Proof of Concept and Reporting
  - o Proof of Concept Specification Analysis
  - o Proof of Concept Development
  - Proof of Concept Evaluation
  - o Review and Report



#### i. Project Initiation

The project team will hold a project kick-off meeting to establish lines of communication among team members and to establish the work plan. The project initiation will also establish the steering committee, which will be comprised of Virginia SBE representatives, subject matter experts and other stakeholders who will provide ongoing advice and guidance to the project team throughout the project as required. At this time, the project team will work with Virginia SBE to confirm the major themes of inquiry and the potential causal relationships to be explored in the technology research an analysis, including levels of success, costs, and potential impact of the findings and results of the project.

### Key Activities

- Conduct kick-off meeting between Virginia Elections and the project team
- Confirm project scope; and
- Create finalized project management plan and schedule.

### Deliverables

- Project Plan,
- Project Schedule (tasks, subtasks);
- Resources scheduling and plan;
- Communication Framework;
- Change Management; and
- High level Risks and Mitigation Plan.

#### ii. Research and Technology Analysis

#### a. Precedent Research

In this stage, the project team will determine the best methods for measuring the effectiveness, security and practicality of technology solutions in each of the technology categories by identifying high-level screening criteria, such as immutable technical and business requirements. The team will utilize the extensive national and international research currently available in its examination of solutions developed, implemented and/or considered by various external jurisdictions. This will include a review and aggregation of research previously conducted by Scytl, Thad Hall, and Michael Alvarez.

Scytl has conducted extensive research on absentee voting, its challenges, benefits and concernsboth technologically and socio-demographically-and has produced numerous publications and participated in multiple international conferences regarding solutions similar in scope and size to that addressed in this project. Access to Scytl's frequently cited bodies of work will allow our proposed team to ramp up quickly on the current environment, concerns, and options available to the assisting of the UOCAVA voting community. Further, the inclusion of Scytl and academic experts in the project will prevent duplicating research efforts currently made through other e-voting projects. In fact, Scytl has been contributing actively to the research in this area, participating in the evaluation and implementation of various remote voting systems, as well as advising governmental institutions and private companies on the proper implementation and evaluation of the remote voting process.

#### Systems Research

Systems Research will include research on the UOCAVA solutions and technologies which are currently deployed in Virginia and other states. The study will evaluate a range of different implementations of these technologies including various vendor implementations, applications, and usages. It will also capture technology variations that exist due to accessibility and usability requirements as well as deployment scenarios such as in-person absentee, mail absentee, and Election Day voting. This portion of study is critical to determining which technology options will be most effective and the extent to which this technology will impact the current technology infrastructure.

#### Socio-Demographic Research

The research effort will not only include technological considerations for security, accessibility privacy, infrastructure, etc., but will also examine critical socio-demographic factors to determine feasibility and appropriateness of technology for different stakeholder groups. Using the knowledge gained through research of existing studies done on voter interaction with UOCAVA voting solutions, the project team will develop a set of guiding principles by which to question the technologies' procedural, administrative, and usability impact on the stakeholder groups. The study will be based on previous works and will include first person and third person accounts. Results of this study will address:

- Voting population's ability to use and appreciate UOCAVA absentee voting solutions.
- Voting populations desire and likelihood to use accessible, secure electronic return or mobile voting station technologies.
- Election officials ability to and satisfaction with current methods and systems for UOCAVA absentee voting
- Election officials likelihood to use technologies for accessibility, secure electronic return or mobile voting stations
- Other stakeholder's satisfaction with current UOCAVA voting solutions.
- External auditors' likelihood to deploy and use technologies for accessibility, secure electronic return or mobile voting stations

#### Key Activities

- Identify high-level technical and business criteria;
- Research of technical factors;
- Research of socio-demographic factors;
- Conduct research on principles of accessible, secure electronic return or mobile voting station technologies; and
- Conduct preliminary interview sessions with key staff and stakeholders.

#### Deliverables

- A research summary on principals of current UOCAVA voting solutions; and
- A research summary on principals of accessible, secure electronic return or mobile voting station technologies.

#### b. Technology Requirements and Options Review

Utilizing the information compiled during the research portion of the project, the team will work to develop the principles, business drivers and other criteria against which potential technology options will be evaluated. Taking what is known about critical technological and socio-demographic considerations for UOCAVA solutions, a numerological value will be assigned to each feature based upon an agreed scale of importance/relevance with the steering committee.

Based on preliminary examination of the existing bodies of research and understanding of UOCAVA voting, it is clear that advanced technology implementation will impact many aspects of voting process. Therefore, in order for a solution to be a viable option, it must provide benefits to voters but also not affect other criteria required for a reliable and secure voting solution, such as:

#### General Technical Evaluation Criteria

- Scalability. Support for the management of multiple or large elections.
- Performance. Number of votes processed in any time interval.
- Cost. Infrastructure and service cost.

#### Security Evaluation Criteria

- Eligibility. Only authorized voters should be able to access the solution.
- Privacy. The technology has to protect voter privacy.
- Integrity. A voting system has to protect sensitive data against manipulation.
- Prevention of intermediate results (if applicable). The voting system shall prevent the disclosure of intermediate results before the election is closed.
- Ballot box accuracy (if applicable). Protection against the addition of bogus ballots or the elimination of valid ballots (ballot stuffing).
- Coercion and vote buying resistance.

• Channel reliability. Ability to detect delivery delays or denial of service attacks in an appropriate timeframe.

#### Usability Evaluation Criteria

- Prevention of voting errors. The voting technology has to prevent involuntary voting errors by voters when casting their votes (e.g., under-voting, over-voting).
- Ease of use. The voting technology must be easy to use by average voters.
- Accessibility. Disabled voters should be allowed to vote with total privacy without the need of assistance from third parties, and multi-lingual support (official languages).

#### Election Management Evaluation Criteria

- Election set-up. The voting technology has to be suitable to carry out a single election set-up.
- Voting period election management. The voting technology has to be easy to manage during the voting period.
- Counting process (if applicable). It is important that the voting technology does not delay the current counting process.
- Auditing. Voting technology must provide means for facilitating the audit of the events to ensure its correct execution.

#### Socio-Demographic Evaluation Criteria

• Probability of user adoption. The voting technology should be usable through existing technology, and the field research should show public willingness/desire to use the provided option.

This activity will outline the principles, business drivers, and technical criteria established as metrics to evaluate available end-to-end verifiable e-voting options. By establishing a numerological value for each evaluation criteria, available options can be scored and ranked quickly and efficiently for the later purpose of developing a proof of concept for selected technologies.

#### Key Activities

• Facilitate discussion and decisions about ranking and weighting of technology provisions, business drivers, and other criteria required for a practical end-to-end verifiable e-voting technology.

#### Deliverables

• Finalized principles, business drivers, and technical criteria; and

• Documentation outlining and explaining the requirements, business drivers and criteria, including technical scoring.

#### c. Technology Analysis and Selection

Applying the evaluation criteria agreed upon, the project team will evaluate the viability of options for each of the technology categories – accessibility, secure electronic return, and mobile voting station. The evaluation will include a technical and operational assessment of each potential technology with the steering committee, including but not limited to risk assessment evaluation, implementation cost, user acceptance level, technology requirements, legal requirements, election management complexity, and public awareness. The analysis will conclude with a technology white paper examining the options for each of the categories and how each one addresses:

- the significance to UOCAVA voters,
- the sustainability and cost-effectiveness over time,
- the impact to UOCAVA voters and local election officials,
- the scalability to address future needs, and
- the return on investment for tangible items (monetary) and intangible (improvements to absentee voting).

#### Key Activities

- Application of the agreed criteria on available technologies;
- Evaluation of the viability of available technologies; and
- Selection of technologies for proof of concept.

#### Deliverables

- Research methodologies used and preliminary research undertaken;
- Options considered with scoring;
- Evaluation of options against principles, business drivers, and other criteria;
- In depth information about each option presented; and
- Selection made for the proof of concept.

#### iii. Proof of Concept and Reporting

#### a. Proof of Concept Specification Analysis

Based on the technology selection in phase 1, phase 2 will begin with a specification analysis. This will provide detailed design information for the development and/or integration of the technology selected for a proof of concept. Furthermore, this activity will also develop a full PoC plan, including where to pilot the technology and how to measure the outcome.

#### b. Proof of Concept Development

The proof of concept develop will take the design considerations from the specification analysis and develop the software and integration tools necessary to meet the PoC requirements. This will include tools specifically for collecting data and analyzing it (where possible). This sub-phase will conclude with the deployment and operation of the proof of concept according at the direction of the project director and steering committee.

#### c. Proof of Concept Evaluation

After the conclusion of the proof of concept, the research team will collect data, analyze it according the criteria established and report their findings to the steering committee. The steering committee will further direct the evaluation and produce conclusions with the research team. The evaluation will also provide recommendations for how the technology can be enhanced if necessary and used in future elections. Virginia will retain the solutions developed for the pilots.

#### d. Review and Report

The project team and the steering committee will prepare a final report will be prepared during the review and report and deliver it at the conclusion of the grant performance period. The final report will include the final data collected; an analysis of the data; a report of important technological, environment, procedural, and circumstantial factors; findings; and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability
- Impact
- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

#### V. Why Scytl and ES&S?

#### i. ES&S Corporate Overview

Election Systems and Software, Inc. (ES&S) is the largest elections-only company in the world. ES&S provides voter tabulation (VT), voter registration (VR) and election training systems and

services to clients ranging in size from small county governments and individual organizations to state boards of elections and international governments.

ES&S is a privately owned Delaware corporation that entered the elections industry in 1969. The company was incorporated in 1979 as American Information Systems and subsequently incorporated as ES&S in 1997 upon its acquisition of the elections division of Business Records Corporation. ES&S acquired Premier Election Solutions on September 3, 2009. The combined company, Election Systems & Software, Inc. (ES&S) is headquartered in Omaha, NE.

In order to achieve the company's vision of greater efficiency and accessibility to its customers, ES&S has employees positioned from coast to coast to ensure that the company maintains voter confidence and enhances the voting experience for all customers. The company maintains nine facilities across the United States and has Canadian offices in Pickering, Ontario and Vancouver, British Columbia.

#### ii. Scytl Corporate overview

Scytl is a software company specializing in the development of highly secure election modernization solutions. These solutions incorporate unique cryptographic protocols that enable election administrators to carry out all types of election processes in a completely secure, transparent and auditable manner. Scytl's advanced election security technology positions the company as a worldwide leader in the election modernization space.

Scytl was formed as a spin-off from a leading research group at the Autonomous University of Barcelona. This group has pioneered the research on election security since 1994 and has produced significant scientific results, including over 30 scientific papers published in international journals and the first two Ph.D. theses on electronic voting security, by Prof. Joan Borrell and Scytl's founder Dr. Andreu Riera (in 1996 and 1999, respectively). Scytl's unique election security technology derives from over 16 years of pioneering R&D and is protected by a portfolio of international patents.

Scytl has customers both in the public and private sectors. The former are Federal, State and Local governments which license Scytl's election modernization products to carry out their elections by electronic means. The latter are large corporations and organizations that choose Scytl's technology to carry out by electronic means election/consultation processes such as labor union elections or shareholders' meetings. Some of these customers represent leading references in the election modernization field (e.g., governments in France, Norway, Austria, Spain, Switzerland, United Kingdom, Philippines, Argentina, Mexico, Finland, United States, Australia, etc.).

Scytl's headquarters are located in Barcelona, Spain, with offices in the Baltimore (MD), Jacksonville (FL), Richmond (VA), Seattle (WA), London, Toronto, New Delhi, Bratislava and Singapore.

3 areas of research and proof of concept covered

- 1. Accessibility
- 2. Secure Electronic Return
- 3. Mobile Voting Station

#### Budget Breakdown Categories

Budget Category	Full Estimate	Estimate for FVAP Grant Submission	
Research and Analysis (Phase 1)	\$175,000.00 Includes:	\$125,000.00	
<ul> <li>8 months (August to April)</li> </ul>	<ul> <li>Personnel         <ul> <li>Project Team (Project Management is assumed to be hand by Virginia)</li> <li>Research Team</li> </ul> </li> <li>Activities         <ul> <li>Precedent Research in each of the 3 technology categories</li> <li>Technology Requirements and Options Review for each of 3 technology categories</li> <li>Technology Selection and Analysis for each of the 3 categories</li> </ul> </li> </ul>		
Proof of Concept and	\$350,000.00	\$275,000.00	
<ul> <li>Reporting (Phase 2)</li> <li>4 months for PoC Development</li> <li>3 months for deployment and operation</li> <li>1 month for analysis and reporting</li> </ul>	engineers, quality as o Research Team • Activities o PoC Specification An	alysis for 2 technology options or 2 technology options technology options or whole project d	

#### Virginia Voter Registration System Modifications

Virginia (VA) current has a statewide voter registration and election management system known as the Virginia Election and Registration Information System (VERIS). VERIS was built by Quest Information Systems (Quest) and VA currently maintains an annual maintenance agreement with Quest for VERIS.

In order for the new voter portal to be fully functional and interactive with VERIS, VA will need to seek some modifications to VERIS that are not covered under the annual maintenance agreement. The following is an itemized list of the necessary changes and the estimated cost of each change. The costs estimates are based off of previous change requests issued by the Virginia State Board of Elections (SBE) to Quest.

- 1. Creation of Web Service Layer
  - a. Estimated Cost \$100,000
  - b. Details SBE will seek to have a series of secure web services built on top of the VERIS database that will enable the voter portal and analytics tool to input and extract information from VERIS. These services will be built to use the same common data standards being used by the voter portal and analytics tool.
- 2. Creation of Absentee Ballot Application Hopper
  - a. Estimated Cost \$50,000
  - b. Details SBE will seek to have a new feature added to VERIS. This hopper will enable the local General Registrars to view and process absentee ballot applications completed on the voter portal. When a voter successfully completes an absentee ballot application (state or FPCA), a record will appear in this hopper for the voter's General Registrar alerting them that an application is forthcoming. Once the form is physically received, the General Registrar can process this hopper record, updating the voter's record in VERIS.
- 3. Creation of Online Voter Registration Hopper
  - a. Estimated Cost \$50,000
  - b. Details SBE will seek to have a new feature added to VERIS. This hopper will enable the local General Registrars to view and process voter registrations and changes of address completed on the voter portal. When a voter successfully completes a voter registration form or change of address form, a record will appear in this hopper for the voter's General Registrar alerting them that a registration form is forthcoming. Once the form is physically received, the General Registrar can process this hopper record, adding or updating the voter's record to the state's registration records.
- 4. Creation of Absentee Voting Hopper
  - a. Estimated Cost \$50,000
  - b. Details SBE will seek to have a new feature added to VERIS. This hopper will enable the local General Registrars to process absentee ballots (both LiveBallot and FWAB) completed on the voter portal. When a voter successfully completes

a ballot on the portal, a record will appear in this hopper for the voter's General Registrar alerting them that a ballot is forthcoming. Once the ballot is physically received, the General Registrar can process this hopper record, updating VERIS to indicate that the voter has voted.

#### ELECTRONIC BALLOT DELIVERY FOR UOCAVA VOTERS WITH EASE TECHNICAL PROPOSAL

- 1) Catalog of Federal Domestic Assistance Number: 12.217
- 2) BAA number: HQ0034-FVAP-11-BAA-0001
- 3) Title of Proposal: Electronic Ballot Delivery for UOCAVA Voters with EASE Technical Proposal
- 4) CAGE Code (b)(6) and DUNs Number (b)(6)
- 5) Secretary of State, West Virginia
- Layna Valentine-Brown, West Virginia Secretary of State's Office 1900 Kanawha Blvd East, Building I Suite 157K, Charleston WV 25305 304-558-6000 x236 Fax 304-558-8386 Email lbrown@wvsos.com
- Layna Valentine-Brown, West Virginia Secretary of State's Office 1900 Kanawha Blvd East, Building 1 Suite 157K, Charleston WV 25305 304-558-6000 x 236/304-558-8386, lbrown@wvsos.com
- 8) August 1, 2011 September 7, 2012

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## TECHNICAL APPROACH AND JUSTIFICATION

## Executive Summary

This application is presented by the West Virginia Secretary of State (WVSOS) to request funding in support of our acquisition and implementation of a web-based electronic ballot delivery system for our military and overseas citizens. Our goal is to provide greater access to online tools in order to make the voting process easier for our UOCAVA voters. West Virginia recognizes that UOCAVA voters traditionally have a lower voting percentage than domestic voters. The MOVE Act was passed to narrow the gap between UOCAVA and domestic voters. A web-based ballot request, delivery, and tracking system will ensure that our state will be in full compliance with the MOVE Act while eliminating the gap between UOCAVA and domestic voters.

WVSOS has not selected a vendor for this project; however, the resulting solution will enable West Virginia to provide complete voter services to our UOCAVA voters. Voters will be provided full services such as voter registration links, ballot request information, ballot delivery, and ballot tracking. The state and counties will be able to provide complete usage data and reporting of each voter service.

The WVSOS is grateful for the opportunity to apply for the Electronic Absentee Systems for Elections (EASE) Grant. It is our desire to join with the FVAP to ensure our military and overseas voters are able to cast their ballot, and have it counted, from anywhere in the world as easily as if they were voting in person at a polling place.

## Goals and Objectives

The primary goals of this project are to increase West Virginia's UOCAVA voter participation base and gather and provide comprehensive data detailing UOCAVA voter activities. We hope to deliver a voter life-cycle website which will include, but is not limited to, voter registration links, ballot request, ballot delivery and ballot tracking. More specifically:

- Develop and deploy new technology that will not only integrate with the existing voter database systems, but will also provide complete web-based voter services for our UOCAVA voters
- Develop and deploy innovative data tools to provide comprehensive gathering of statistics for UOCAVA voter services and activities for each election cycle
- To enhance our existing state-wide voter registration system (SVRS) to better control and automate portions of the process for absentee ballot request, delivery, receipt and tracking

The key objectives for this project include:

- Notify the UOCAVA voter during each step in the process by sending e-mail notifications when absentee ballot applications are received, ballots are delivered and received by the local election official and whether the ballot was counted or rejected
- Provide a standard format interface file that will integrate with the selected electronic ballot delivery vendor
- The web-based ballot deliver system is to be hosted in a secure environment where the site has built-in redundancy and provides for uninterrupted access regardless of the voter's location
- Support any bandwidth connectivity to the Internet with no time outs
- Utilize a Secure Socket Layer (SSL) address for access by use on any browser
- Provide ADA compliance
- Utilize the most secure interface (WVSOS standard is aspx.net)
- Provide an intuitive and user-friendly interface
- Generate a user-specific access to the on-line system that is sent to the SVRS for handling and storage
- Provide access only to individuals with the proper credentials, protecting the identity of the individuals
- Monitor access for intrusion and reporting any such attempts
- Log all transactions (Any on-line marking is not to be associated with a particular voter when providing this functionality)
- Link to WVSOS websites for additional information
- Provide for secure functionality for over/ under voting, a summary for review, and the ability to revise a ballot prior to printing when marking electronically
- Provide for the ballot and additional required documentation to be generated in an unalterable format that when printed on standard paper size so that it is easily verified
- Provide statistical reports daily in Excel format to WVSOS

## Efforts

The efforts of this project will be accomplished by the coordination of the following:

- WVSOS internal staff
- West Virginia County Clerks
- PCC Technology Group, Inc. (PCC) the architect and support of the SVRS

• On-line Ballot Delivery System Vendor – to be determined based on the State procurement process

## Architecture

In order to automate and simplify the UOCAVA voter's absentee ballot experience, we have identified four highly desirable systems:

- 1) Enhancements and interfaces to and from the SVRS
- 2) The development of an On-line Voter Registration System
- 3) The development of a Ballot Creation System
- 4) Use of an On-line Ballot Delivery System

The SVRS would serve as the core of the system design. The database utilized is Microsoft SQL 2008. This system is enhanced and maintained by PCC. This system will serve as the repository for all related data. To incorporate enhancements, the system will require modifications to existing tables and development of new functionality.

The On-line Voter Registration System would be developed in-house by a .net programmer who will develop the system to integrate the captured data into the existing SVRS system for review by the County Clerks. The On-line Voter Registration system would be developed using WVSOS standards - aspx, C#, and .net with the data being stored in the SVRS SQL 2008 database.

The Ballot Creation System will also be developed in-house using WVSOS standards and stored within the SVRS, which will incorporate features and functionalities of an Election Management System.

The On-line Ballot Delivery System will be outsourced for each election cycle and will be required to securely interface with the WVSOS environment and follow industry best practices for securing both the system and the identity of the individual voters.

## Security

Security is of the utmost concern in the handling of personally identifiable information particularly in the use of web-based applications. It isn't enough to provide secure communications. A key feature to securing the site is to apply application development best practices.

As standard practice, WVSOS encrypts all personally identifiable information in the databases and uses secure methods to transfer any/all of this information. Vendors who are supplied our data are required to sign our confidentiality agreement.

One proof of concept that is currently being reviewed and tested is the *user-centric identity ecosystem* for the use of trusted digital identity credentials consistent with NSTIC principles. Dependent upon the timeframe of delivery, we will potentially incorporate these outcomes in our deployment.

The in-house applications and interfaces will be built utilizing the latest authentication methods and communications and software security measures. This applies to access for the users and storage of data in SQL databases. We will evaluate risk assessments and apply vulnerability testing to eliminate cross-site scripting, information vulnerability, and other potential security issues.

To increase compatibility and secure the data, we will be utilizing the latest common data formats currently being defined for NIST by IEEE. More specifically, for the secure ballot delivery process, we will utilize a digital EXML (Election XML) signature/encryption.

By outsourcing the on-line ballot delivery mechanism to a vendor who incorporates the latest security measures in physically securing the site as well as utilizing the latest secure development and verification tools, we are mitigating our risks and are not locked into one technology that will continually be enhanced with the latest and best practices for handling this sensitive information by people all over the world. We will be providing the services, utilizing the most secure systems available at the point-in-time required, and be assured that the vendor providing the service has incorporated the best practices for security quality.

WVSOS proposes to develop/contract development of a system to be used in-house to assign a unique identifier and the assigned ballot style as the only data that is exported to the on-line ballot delivery system. By handling this information in-house and storing the data in an encrypted format, we are providing minimal data to the vendor, eliminating any concern about correlation of ballot data to the voting individual by the vendor or the local election official.

We project that by fully deploying a new technology we will dramatically streamline and speed the balloting process for our UOCAVA voting population, as well as save significant staff time complying with the mandates of the MOVE Act. When compared to pre-MOVE Act levels we anticipate the following:

- Our ballot return rate will improve by well over 50% with the goal of eliminating the ballot return gap between UOCAVA and domestic voters
- That our UOCAVA voter participation rate will increase by over 35%
- The percentage of ballots delivered to ballots received will climb by over 40%.
- That our UOCAVA statistical reporting metrics and data aggregation tools will dramatically improve, thus enhancing our overall data metric reporting by over 75%.
- That state and local staff time spent complying with the MOVE Act requirements will fall by over 60%.

West Virginia absentee ballot return rates (as reported by the EAC's 2008 Election Day Administration and Voting Survey) are 82% for domestic absentee voters and 58% for UOCAVA voters.

The key metric for this State is to improve the ballot return rate for UOCAVA voters by at least 50% from pre-MOVE Act data over the next election cycle, and moving towards a future goal of a zero-gap between UOCAVA voters and domestic voters by 2016.

The FVAP funding will ensure West Virginia offers an intuitive, one-stop, seamless process to request a ballot online, receive notification of ballot availability, access and mark the ballot online, track the ballot's progress, and dramatically improve the ballot return rate.

## Schedule and Milestones

The Secretary of State has identified the following as the initial schedule assuming a grant award date of August 1, 2011. Because of the complexities of the project, the WVSOS will be implementing a multi-phase approach. The phases are outlined below and detailed schedules will be agreed upon by the program team.

Phase One:

Enhancements to Existing Applications

- 1) Initiation and Planning
  - a) Stakeholders group identified
  - b) Define project scope
  - c) Detailed project plan developed
  - d) Change orders to existing applications identified and defined
    - No later than August 15, 2011
- 2) Design, Analysis and Installation
  - a) Prioritize enhancements and finalize delivery dates
  - b) Receipt and installation of any necessary hardware and software

#### No later than September 19, 2011

- 3) Testing and User Acceptance
  - a) Develop test scenarios for software and integration points
  - b) Identify acceptance criteria
  - c) Implement identified test scenarios for compliance with acceptance criteria
  - d) Sign-off on enhancements

## No later than October 17, 2011

- 4) Training
  - a) Develop training plan for end users
    - No later than November 1, 2011
  - b) Train local election officials and staff

## • No later than November 19, 2011

- 5) Deployment
  - a) All associated hardware, software and citizen and personnel procedures in place and ready for use
    - Not later than January 3, 2012

Phase Two:

Hosted Services

- 1) Initiation, Planning and Procurement
  - a. Stakeholders group identified

- b. Define project scope
- c. Detailed project plan developed
- d. Request for Quotation (RFQ) for electronic ballot delivery system vendor defined, published, opened and awarded
  - No later than December 1, 2011
- 2) Development and Installation
  - a. RFQ opened and awarded
  - b. Receipt and installation of all hardware and software
  - c. Develop new application

## • No later than January 3, 2012

- 3) Testing and User Acceptance
  - a. Develop test scenarios for software and integration points
  - b. Identify acceptance criteria
  - c. Implement identified test scenarios for compliance with acceptance criteria
  - d. Sign-off on enhancements
    - No later than January 25, 2012
- 4) Training and Communications
  - a. Develop training plan for local election officials and other users
  - b. Develop outreach plan to promote use of the system by UOCAVA voters
    - No later than February 1, 2012
  - c. Implement training plan for local election officials and other users
  - d. Implement outreach plan to promote use of the system by UOCAVA voters

## • No later than February 29, 2012

- 5) Deployment
  - a. All associated hardware, software and citizen and personnel procedures in place and ready for use
    - Not later than March 15, 2012

## **Reports**

1. Programmatic and Financial Progress Reports

Beginning with the fourth quarter of 2011 and concluding with the first quarter of 2013, the Secretary of State will prepare quarterly programmatic and financial progress reports.

The programmatic and financial progress reports will provide:

- Overall status
- Current activity, accomplishments, and major and minor milestones met
- Milestones scheduled for next reporting period
- Risk Log. This is a log of project risks, each with a description, probability, mitigation approach, and current status
  - A list of open issues and actions items being managed during the reporting period
  - Expenditures to date and balance of grant funding
- 2. Data collection points reports

There will be two data collection point reports prepared throughout the grant period. The first report will follow the primary election and the second after the general election. Each report will contain the data collected for each election, environmental and circumstantial factors considered, an anomaly report, and findings and conclusions. The types of data collected will provide sufficient detail for analysis at each phase in the absentee voting process. This includes:

- Number of ballot requests
- Number of ballot styles supported
- Number of ballot styles downloaded
- Number of ballots successfully returned
- Number of ballots not returned

- Problems incurred
- Number and type of email notifications sent successfully/unsuccessfully
- Voter feedback through survey

## 3. Final Report

The grant period Final Report will be prepared during the Final Analysis and Reporting Phase and delivered at the conclusion of the grant performance period. The final report will include the final data collected, an analysis of the data, a report of important technological, environment, procedural, and circumstantial factors, findings and conclusions for each of the following areas:

- Overall
- Financial
- Security
- Significance
- Sustainability

\_ -

Impact

- Strategy
- Innovation
- Scalability
- Collaboration
- Cost vs. Benefits

## MANAGEMENT APPROACH

## Strategic Goal

The goal of the electronic ballot delivery solution is to eliminate the voting success-rate gap between UOCAVA voters and domestic voters by reducing impediments related to receiving and casting a ballot. The electronic ballot delivery solution will increase UOCAVA voter success rates through the implementation of a sustainable and affordable system that provides services to voters from registering to voter through ballot tracking.

#### Analysis for Current Process

UOCAVA voters apply to register to vote and request an absentee ballot through a handcompleted Federal Post Card Application (FPCA) or a West Virginia-specific voter registration form and absentee ballot application. While there are service providers who offer an interactive FPCA, such as the Overseas Vote Foundation, traffic to these sites is less than optimal. Statespecific instructions for the FPCA can be difficult to find and even more difficult to interpret. This results in incomplete or unclear forms that require lengthy follow-up or rejection, placing timely absentee ballot requests at risk.

After requesting a ballot the local election official (LEO) determines if the applicant is eligible, and if so, the absentee ballot and related absentee ballot materials are sent to the voter at the appropriate time via USPS, facsimile or electronic mail (email) per the voter's designation to the address, facsimile number, or email address provided by the voter.

If the voter has chosen to receive the ballot through email, the LEO scans the appropriate ballot style, converts it to a portable document format (pdf), and sends the pdf and related ballot materials to the voter in an attachment to the email. Upon receipt of these materials, the voter prints the attached documents and marks the pdf hard copy and related ballot materials.

Returning the ballot and materials can be accomplished by sending the ballot and materials to the LEO via USPS or the voter can scan the documents, convert them to a pdf, and attach them to a return email to the LEO.

#### **Process Identification**

Voter provides completed absentee ballot application or Federal Post Card Application (FPCA) to LEO and designates "email" as the preferred ballot delivery method

The LEO denotes the voter's absentee ballot status and preferred delivery method in Statewide Voter Registration System (SVRS)

The State provides data to the vendor on a nightly basis that identifies UOCAVA voters who wish to receive their ballot through email. The system provided by the vendor identifies the appropriate ballot style based on the data provided from the SVRS and provides the appropriate ballot and related materials to the LEO. A URL and individualized access code (supplied by the

vendor) are provided to the voter by the LEO and includes all necessary instructions to log in and access the voter's individual ballot.

SVRS is updated to show voter's ballot has been sent using preferred method

Voter accesses the system and their ballot by navigating the URL and entering the access code along with a personal identifier (SSN last four, DOB, etc.)

Voter is provided with the appropriate ballot and offered these options for marking and returning the ballot:

- 1) Mark the ballot using the system tools
  - Print the marked ballot for USPS, facsimile or scan and email
  - Save the marked ballot as a pdf file for attachment to a return email to the LEO
- 2) Print the unmarked ballot for manual marking
  - Mark the ballot manually and return via USPS, facsimile, or scan and email to the LEO

Voter marks and returns ballot to the LEO using one of the options provided

Voter prints materials required for USPS, facsimile, or scan and email return methods, such as coversheet, oath of voter, etc. and returns to LEO

LEO updates SVRS to show that voter's ballot has been received

A web-based free access system will provide the voter with updated information on the status of the application, ballot delivery, and ballot receipt by the LEO. The tracking system will be available 24 hours a day for the convenience of the voter. Sixty days following the date of the election the tracking system will be purged to be made ready for the next election cycle.

## Potential Risks and Mitigating Strategies

Project risks would include a sustained interruption of internet service rendering the online interface unavailable. UOCAVA voters would continue to have access to other absentee ballot request methods and electronic blank ballot delivery. In addition, these voters may use the Federal Write-In Absentee Ballot should a lack of time become a significant factor.

A second potential risk would be the interception of the voter's information during transmission to or from the voter. If the information were to be intercepted during transit to the voter, the voter would not receive his/her access information and would need to contact the LEO for further resolution. This would also alert the LEO; and subsequently the state and the vendor; of a potential risk and need for assessment. If the interception occurs in the transmission from the voter to the LEO, the voter will not receive a confirmation email from the LEO. As part of the instructions provided, the voter will be prompted to expect the confirmation email and be given instructions to follow in the event the confirmation is not received.

## Performance Indicators

- Improved rate of completed UOCAVA voting transactions from ballot request to ballot return
- Increased percentage of UOCAVA voters participating and voting in Federal elections
- Reduced failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process
- Provide tools and services that can benefit other jurisdictions
- Provide security measures to protect users' personal identifying information and any transmitted election material
- Provide evidence and findings generated from authoritative and documented research efforts to measure and report on the success of the previous objectives

## **Modification Justification/Projections of Effectiveness**

Our current UOCAVA absentee ballot process is a labor-intensive, manual environment in which our state and local elections staff must spend a disproportionate amount of time. We believe that every eligible voter should have equal access to the ballot. Therefore, regardless of the time it takes, our staff will ensure the ballots gets delivered and processed. Our key objective is to narrow the gap between domestic ballot return and UOCAVA ballot return. By automating the process with an electronic ballot delivery system, our UOCAVA voters will be able to request, access, mark, return and track their ballot and the status of their ballot, on-demand and online. In addition, automating the MOVE Act compliance requirements will free up state and local elections staff to perform other necessary elections critical activities that relate to all our voters, domestic and abroad.

We are confident that an automated, web-hosted solution will greatly narrow the gap between UOCAVA and domestic voters, while reducing the costs associated with a manual process. By deploying an electronic ballot delivery system we can offer ballot request, ballot access and ballot return in a more expedited manner than our tradition manual process. As a result of an electronic ballot delivery system, we expect less human resource hours will be spent on UOCAVA related ballot processes.

An electronic ballot delivery system will be available to every eligible voter around the world, on-demand, without relying on any one individual to mail or email a ballot package. Every laptop or computer with a browser will become an electronic ballot tool, delivering the correct ballot to the correct voter, no matter where in the world they live, regardless of physical disabilities.

Finally, our selected system will be reviewed and approved for the highest level of accessibility for disabled voters. Using the electronic ballot delivery system, every eligible UOCAVA voter, from Waziristan to Walter Reed will have access to their ballot, where and when they want it.

## Performance Measures

- The number of voters who complete each phase of the process
- The percentage of UOCAVA voters who participate in at least one portion of the voting process
- The failure rate for each stage in the absentee voting process
- The number of received and counted ballots
- The number of ballot requests rejected
- The number of security issues reported
- The average amount of time of when the ballot is sent and when it is received by the LEO office

## Current and Pending Project Proposal Submissions

We currently have no current or pending projects that overlap with this initiative. We have been in strategy discussions about the various balloting tools that are available to assist not only our UOCAVA voters, but also ways to assist our disabled population.

In 2009 the West Virginia Legislature approved a pilot program for online electronic voting for the 2010 primary election. The success of this pilot encouraged the legislature to extend it for the 2010 general election. The complete legislative report for this 2010 pilot program has been attached for your review. It would require a change in West Virginia Code by the legislature to allow online electronic voting in the future.

## Personnel/Qualifications

Resumes are added as the qualification document attachment for the following internal personnel assigned to the EVRI project:

- Layna Brown, HAVA Coordinator/Grant Project Manager
- David Nichols, Elections Division Manager
- Beth Ann Surber, Chief Information Officer
- Jackie Harris, Policy Director
- Dave Tackett, Statewide Voter Registration System Coordinator
- Lisa Blake, NVRA Coordinator
- R. Curt Zickafoose, Legislative Director
- Brian Messer, Chief Financial Officer
- Vendor to be selected through state procurement process

## BUDGET JUSTIFICATION for Electronic Ballot Delivery for UOCAVA Voters with EASE

Development		
Travel	\$3,900.00	Travel to another state for personnel to observe system
Supplies	\$1,500.00	Miscellaneous items needed - cables, peripherals, flash drives/cds, office supplies
Contractual	\$259.000.00	PCC Change Order for SVRS
		PCC Change Order for SVRS
	\$8,910.00	Reserve for change order modifications/contingencies
Other		Access encryption
		55 email licenses (1 per county)
Total Development	\$338,460.00	
Implementation		
Equipment	\$21,000.00	Servers and related items
Supplies	\$3,700.00	Miscellaneous items needed - cables, peripherials,
		flash drives/cds, office supplies
Contractual		Electronic Ballot Delivery vendor
		IT support: programmers, applications developers
		PCC Change Order for SVRS Reserve for change order modifications/contingencies
Total Implementation	\$397,535.00	Reserve for enange order mournearions/contingencies
<b>Testing &amp; Training</b> Travel	\$2 750 00	Travel for site visits & training sessions
114701	.φ2,150.00	Traver for site visits & training sessions
Supplies	\$5,000.00	Creation of training materials
Contractual	\$15,750.00	Testing for ADA Compliance
Other	\$25,000.00	Public Relations - providing information to voters
		Costs associated with training state & local election officials (facilities, etc.)
Total Testing & Training	\$54,750.00	
Total Justification	\$790,745.00	

## Return on Investment Justification for Electronic Ballot Delivery

Each of the 55 counties in West Virginia handles the processing and the budgeting for absentee voting. We have found that from county to county these processes and budgets vary greatly. We believe that by creating a statewide uniform process the amount of participation by UOCAVA voters will increase and the costs associated with absentee voting will decrease for each county.

The Return on Investment from this grant will produce the following:

#### Type of Transaction

Information Inquiries Absentee ballot applications Ballot Transmissions Received by voter Readable Ballot Markings Ballots returned on time & counted Employee hours spent compiling package Full UOCAVA voter participation (send & receive)

#### Return rate percentage

↑ 50%
↑ 80%
↑ 100%
↑ 100%
↑ 85%, with a goal of 100%
↓ 60%
↑ 35%

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### ELECTRONIC VOTER REGISTRATION INITIATIVE (EVRI) WITH EASE TECHNICAL PROPOSAL

- 1) Catalog of Federal Domestic Assistance Number: 12.217
- 2) BAA number: HQ0034-FVAP-11-BAA-0001
- 3) Title of Proposal: Electronic Voter Registration Initiative (EVRI) with EASE Technical Proposal
- 4) CAGE Code<sup>(b)(4)</sup> and DUNs Number<sup>(b)(4)</sup>
- 5) Secretary of State, West Virginia
- 6) Layna Valentine-Brown, West Virginia Secretary of State's Office 1900 Kanawha Blvd East, Building 1 Suite 157K, Charleston WV 25305 304-558-6000 x236 Fax 304-558-8386 Email lbrown@wvsos.com
- Layna Valentine-Brown, West Virginia Secretary of State's Office 1900 Kanawha Blvd East, Building 1 Suite 157K, Charleston WV 25305 304-558-6000 x 236/304-558-8386, lbrown@wvsos.com
- 8) August 1, 2011 September 7, 2012

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#### TECHNICAL APPROACH AND JUSTIFICATION

#### Executive Summary

This grant request is offered by the Office of the West Virginia Secretary of State (WVSOS) to acquire funding for the development and implementation of an Electronic Voter Registration Initiative (EVRI) to remove impediments to voter registration faced by military and overseas citizens. The goal of this project is to provide web-based voter registration tools in a user-friendly online environment in order to make the electoral process more accessible to voters covered by the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) while simultaneously decreasing common registration application errors.

The WVSOS recognizes UOCAVA voters face certain obstacles to registration, resulting in a traditionally lower voting percentage when compared to domestic voters. By providing clear and timely information, and by removing many of the barriers created by time and distance, the WVSOS strives to ensure UOCAVA voters have every opportunity to participate fully in the electoral process.

This proposal represents a collaborative approach to voter registration process improvement. Project partners include the West Virginia Division of Motor Vehicles (DMV), county clerks from each of West Virginia's fifty-five counties, the state's current voter registration database service provider (PCC), and state-designated voter registration agencies throughout the state. The WVSOS core team will work with these partners to develop and deploy a cost-effective and sustainable system that, when provided to voters throughout the state, will result in a significant return on investment.

The West Virginia Secretary of State looks forward to the opportunity to continue working with the Federal Voting Assistance Program (FVAP) to expand the array of assistance options available to UOCAVA voters. West Virginia has taken a leadership role in this effort and will persist in seeking continuous process improvements to provide unhindered voting opportunities for the UOCAVA population and all of the electorate.

#### **Goals and Objectives**

The West Virginia Electronic Voter Registration Initiative (EVRI) is proposed to accomplish the following goals:

- Increase the data sharing potential between the West Virginia Secretary of State's Office (WVSOS) and the West Virginia Division of Motor Vehicles (WVDMV) to obtain the most accurate and up-to-date information about UOCAVA voters, both domestic and abroad
- Provide a secure network environment by which to transmit both public and personal resident (voter, driver) information between the WVDMV and WVSOS
- Decrease the amount of paper traffic required to process voter registration applications at WVDMV and affiliated National Voter Registration Act (NVRA) agencies, including military recruitment offices and Voting Assistance Officers
- Implementation of the EVRI will require the use of the West Virginia Statewide Voter Registration System (WV SVRS) and the WVDMV Drivers Licensing system. It will also require the development of a web-based program that will act in conjunction with these two existing systems to facilitate the following objectives:
  - Allow a UOCAVA voter, domestic or abroad, to complete and submit online a voter registration application to the appropriate jurisdiction

- Allow an affiliated NVRA agency, including a military recruitment office or Voting Assistance Officer to assist a citizen in the online completion and submission of a voter registration application to the appropriate jurisdiction
- Allow a Uniformed or Overseas citizen to provide online, to the appropriate jurisdiction, the necessary information to apply for an absentee ballot

## Effort

The necessary interaction between these three systems will require the collaborative efforts of the following entities:

- WVSOS internal staff, including a temporarily contracted applications programmer responsible for the development of the web-based online voter registration program
- West Virginia County Clerks and voter registration staff
- WVDMV internal staff
- West Virginia Department of Transportation (WVDOT) internal staff
- Marquis ID Systems architect and support for WVDMV licensing system
- PCC Technology Group, LLC architect and support for WV SVRS
- Affiliated West Virginia NVRA agencies internal staff
- WVNET architect and support of West Virginia statewide wide area network (WVWAN) K-12, government and non-profit network backbone

## Architecture

The proposed architecture of the EVRI would include:

- SVRS (existing some modification required via change order)
   Web-based application and SQL database, resident (hardware, software) at WVSOS, utilized by
   WV County Clerks through WVWAN
- Marquis Drivers Licensing System (existing some modification required via change order) Web-based application and SQL database, resident (hardware, software) at WVDMV, utilized by Regional WVDMV office locations through WVWAN
- EVR (Electronic Voter Registration) System (proposed, developed through requested funding) Web-based application and SQL database, resident (hardware, software) at WVSOS, utilized by prospective and current voters, domestic and abroad, as well as WVDMV and affiliated NVRA agencies
  - Via kiosk-style terminals or peripherals at WVDMV Regional locations through WVWAN
  - Via UOCAVA voter accessible internet
  - Via affiliated NVRA agency internet or statewide WVWAN

This proposed approach utilizes two existing systems with similar designs (web front end, SQL back end) and adds a third of the same design. It utilizes an existing statewide connectivity backbone that already serves the existing systems and allows for the addition of the third. It could be said, then, that the proposed project has a formidable advantage by simply capitalizing on the scalability of the existing infrastructure.

#### Security

All web-based applications included in the proposed architecture will be housed on hardware located within each participating agency, resident upon the interconnected WVWAN, managed by WVNET through industry-best security standards and protocols.

Each of the existing applications utilizes the SSL protocol as an internet security standard and access relies on unique user credentials, managed through a permissions-based hierarchy. All passwords stored in the database(s) are encrypted, requiring a reset through the management hierarchy. The newly developed application is expected to utilize the same protocol, with the possibility of adding the S-HTTP protocol for communication with participants outside the WVWAN. The new application is also expected to add a unique, transaction-based layer to the user credential structure by using a confirmation process that is a combination of date, terminal ID and sequential ID; this process will be utilized for users not managed through the hierarchy.

Each system identified in the proposed architecture has or will have both systemic and transactional audit logs as part of the application and database structure.

#### Schedule and Milestones (assumes August 1, 2011 award)

- Procurement
  - o Server, kiosks (tablet or PC), furniture, hardware and associated licensing, software licensing, necessary peripherals
  - o Change orders identified and defined
  - o Temporary programmer contracted

#### No later than October 1, 2011

- Development and Installation
  - o New application designed
  - o Existing system application change orders executed
    - No later than February 1, 2012
  - o Infrastructure changes at external locations complete

#### • No later than March 31, 2012

- Logic and Accuracy
  - o Data and process flow tested and reviewed with no critical errors

#### No later than March 31, 2012

- User Acceptance
  - o All participating entities signoff on system and procedures
  - o Load analysis complete

#### No later than April 30, 2012

• Training and Communications

- o Agency personnel training program and schedule developed
- o Strategic voter outreach program developed

#### No later than May 1, 2012

- o Training completed
- o Outreach program deployed
  - No later than July 1, 2012

- Deployment
  - All associated hardware, software, and citizen and personnel procedures in place and ready for use
    - No later than July 9, 2012

## Reports

#### Milestones reports

• Each milestone outlined in <u>Schedule and Milestones</u> of this proposal will have programmatic and financial reports compiled quarterly, as well as summary information included in the Final Report.

#### Effectiveness and Tracking reports

Data collection is expected throughout the absentee periods for the 2012 Primary and General elections, as per previous elections.

Breakdowns regarding procedure and impact per the following entities are expected:

- EAC
- NVRA agencies
  - o Department of Health and Human Resources
    - Behavioral Services
    - Social Services (Daycare)
    - Social Services (Homeless)
    - WIC
    - Family Support
  - o WV Deaf & Blind School
  - o Education, Arts, and Rehabilitation Services
  - o Blind/Handicapped (Library)
  - o WVDMV
  - o Senior Services
  - o Veterans Affairs
  - o Recruitment Offices
  - o Colleges and Universities

#### Final report

Summary information narrative to include the following categories:

• Overall, Financial, Security, Sustainability, Innovation

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#### MANAGEMENT APPROACH

#### Strategic Goal

The goal of the Electronic Voter Registration Initiative (EVRI) is to improve the voter registration process for voters covered by the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) by reducing impediments to registration through the implementation of a sustainable and affordable electronic voter registration system. EVRI will reduce failure rates for voter registration and absentee ballot applications for this target demographic by effectively eliminating most, if not all, of the common applicant errors and by automating key processes necessary for success.

#### Current Process Analysis

Currently, UOCAVA voters apply to register to vote and request an absentee ballot through a handcompleted Federal Post Card Application (FPCA) or a combination of the West Virginia Voter Registration Application and a separate absentee ballot application. While there are service providers who offer an interactive FPCA, such as the Overseas Vote Foundation, traffic to these sites is less than optimal. State-specific instructions for the FPCA can be difficult to find and even more difficult to interpret. This results in incomplete or unclear applications being submitted that require lengthy follow-up or rejection, placing timely voter registration and absentee ballot requests at risk.

Many UOCAVA voters are established residents of the state and like the general population, possess a West Virginia Driver's License or DMV-issued Non-Operator's Identification Card. This means these applicants may already have an electronic signature on file in a state-maintained database, however, current voter registration processes still require a paper form to be completed with a "wet" signature attached. This paper form must be transmitted by mail, delivered by hand, or sent to local election officials via a registration agency authorized by the National Voter Registration Act of 1993 (NVRA). Each of these methods is time-consuming, cumbersome, and particularly problematic for voters residing outside the state due to uniformed service or overseas employment/residency.

Current processes rely on manual data entry and record-keeping to ensure UOCAVA voters are properly recorded in the Statewide Voter Registration System (SVRS) and that they are supplied with all ballots to which they are entitled.

#### Proposed Process Identification

Individual logs on to the appropriate website via the Internet (SSL site) or is presented an opportunity to apply to register to vote on an approved online system at a Division of Motor Vehicles or other NVRA-designated agency, where available. (State will provide 23 strategically-placed klosks for voter access where alternate internet-access opportunities may be limited.)

Individual completes the information required to complete the registration application. System will define all required fields and will require completion of these fields before accepting the transaction as complete. Prompts will be provided for non-required, but highly desirable, information. Note: For DMV applicants, the applicant will supply *only once* any data which appears simultaneously on the voter registration application and the driver's license application.

System will provide a method for voters to self-identify as absent uniform service member (or spouse/dependent) or overseas citizen and will provide a link to a Federal Post Card Application (FPCA) module. This module will define all required fields and require completion of these fields before acceptance of the transaction. Prompts will be provided for non-required, but highly desirable, information.

System will provide a confirmation number once a completed application is submitted.

FPCA applicants will be prompted to identify if the application is to be used for absentee ballot request purposes in addition to voter registration. If "yes," applicant will be provided additional prompts for the absentee portion of the form.

System will compare the entered data to existing data in the SVRS and DMV licensing system (Name, Date of Birth, SSN/ DL#, Gender).

If there is an apparent match and an electronically-captured signature is on file in the SVRS or DMV database, the comparison data will be transferred to a "voter registration pending" module of the SVRS for the County Clerk's review.

If the Clerk determines the data is an actual match, the system will provide the signature to the Clerk via the SVRS.

Accepted applications will be stored in the SVRS in the same manner as all other active voter registrations. The Clerk will be provided an option to print Voter Registration documents from the approved application and, where an FPCA has been submitted, may also print absentee ballot documents for any or all applicable elections for the calendar year during which the form was submitted.

If no data match is found, voter will be offered the option to print the completed form, sign, and mail to the local County Clerk. A link to County Clerk contact information will be provided.

If a County Clerk rejects the matched data as insufficient to determine the applicant is a match, the Clerk shall notify the voter by electronic or standard mail and permit the voter to submit a signed application within established legal timeframes.

Individuals submitting a registration application during any "registration closed" period will be provided an electronic notice informing them that the registration or update will not take effect until the following next election and instruct them on how to determine their eligibility, if any.

System will allow online registration originating at a NVRA-designated agency to be flagged as an "agency" registration in SVRS, as required for NVRA reporting purposes. All other online registrations will be identified as "by mail" for reporting purposes.

Any registration application returning a data match which is accepted by the County Clerk will not require the voter to show an ID meeting the requirements of the Help America Vote Act of 2002 (HAVA) when first voting since this match satisfies the requirements of that Act.

System will provide various reporting mechanisms to identify the source and number of registrations accepted and rejected through the online system. The system shall also track source data (Agency/DMV/Mail/etc.). System shall record how many FPCA forms were submitted and provide a year-end report of all FPCA-based absentee requests submitted from all sources. This report should include e-mail addresses, where available. The Clerk may use this report to notify all FPCA applicants of their need to renew the FPCA on an annual basis.

System shall provide NVRA agencies, to include the DMV, a method to complete Voter Registration Declination Forms.

#### Potential Risks and Mitigating Strategies

Project risks would include a sustained interruption of internet service rendering the online interface unavailable. UOCAVA voters would continue to have access to traditional voter registration and absentee ballot request methods and electronic blank ballot delivery. In addition, these voters may use the Federal Write-In Absentee Ballot should a lack of time become a significant factor.

A second potential risk would be the interception of non-public voter registration data during the matching process. Although the vast majority of voter registration data is public record and the project does not increase any risk associated with the storage of the data by the Division of Motor Vehicles or within the SVRS, there is an additional risk during transmission. To mitigate this risk, the state is exploring best practice recommendations from cyber-security experts and risk-mitigation efforts employed by several states that have incorporated similar practices. Since data matching with DMV is a required element of a statewide, centralized voter registration database as defined by the Help America Vote Act of 2002, the only change of any significance is the inclusion of a "signature" field in the transmitted data.

## Performance Indicators

- Identification of common data elements inherent to the SVRS and DMV licensing system for applicant identity confirmation
- Completion of system enhancements for DMV database and SVRS to accommodate data matching process and necessary tracking/reporting modules
- Design and completion of the web-based interface for seamless voter access to registration application and related voting information
- Design and timely implementation of a strategic outreach program to effectively identify and communicate with target voters
- Successful development and presentation of training materials for each of the collaboration team member groups, including: the Office of the Secretary of State, the West Virginia Department of Mötor Vehicles, other designated NVRA agencies and all fifty-five counties
- Participation of NVRA agencies in EVRI program
- Registration of current UOCAVA-eligible voters using EVRI system
- Acceptance of completed absentee ballot applications from current UOCAVA voters

## Modification Justification/Projections of Effectiveness

UOCAVA voters, especially those in the military, face frequent relocation. In order to remain properly registered, it is imperative that voters update voter registration records after each move. Finding the closest registration location or identifying a voting assistance officer may be low on the list of priorities for a military family on the move. Having access to an online voter registration application, one which does not require access to a printer or scanner, will facilitate greatly the registration application process for overseas voters, absent service members and their families.

Traditional voter registration/absentee request processes may take 60 days or more to complete when relying on overseas mail delivery systems, voter identity confirmation processes and ballot delivery. Online voter registration, when coupled with expedited electronic blank ballot delivery, reduces this timeframe to a matter of days or hours.

Based upon the success of states implementing earlier versions of this process, West Virginia anticipates more than 80% of UOCAVA voters will utilize this system to 1) initially apply for voter registration, 2) use the system to update voter registration information, or 3) utilize the Federal Post Card Application option for an absentee ballot request.

This system becomes part of a greater voter registration/election administration continuum of services, seamlessly integrated to optimize opportunities for successful voter registration and timely voted ballot return. A fully-automated registration/ballot delivery process is expected to result in successful UOCAVA voted ballot return rates of 85% or greater, with an ultimate goal of 100% success.

## Performance Measures

- Identification of 100% of common data elements inherent to the SVRS and DMV licensing system for applicant identity confirmation by project timeline deadline
- Completion of system enhancements for DMV database and SVRS to accommodate data matching process and necessary tracking/reporting modules within project timeline deadlines
- Design and completion of the web-based interface for seamless voter access to registration application and related voting information
- Successful logic and accuracy testing of all system components with no outstanding critical errors by March 31, 2012
- Successful User Acceptance Testing and load analysis by April 30, 2012
- Design and timely implementation of a strategic outreach program to effectively identify and communicate with target voters deployed by July 1, 2012
- Successful development and presentation of training materials for each of the collaboration team member groups, including: the Office of the Secretary of State, the West Virginia

Department of Motor Vehicles, other designated NVRA agencies and all fifty-five counties prior to July 1, 2012 deployment deadline

- Participation of 20% NVRA agencies in EVRI program in first year of deployment
- Successful registration of 100% eligible UOCAVA voters choosing EVRI system as registration method
- 100% acceptance of accurately completed absentee ballot applications from current UOCAVA voters choosing the EVRI/FPCA interface as the application method

#### Personnel/Qualifications

Resumes are added as the qualification document attachment for the following internal personnel assigned to the EVRI project:

- Layna Brown, HAVA Coordinator/Grant Project Manager
- David Nichols, Elections Division Manager
- Beth Ann Surber, Chief Information Officer
- Jackie Harris, Policy Director
- Dave Tackett, Statewide Voter Registration System Coordinator
- Lisa Blake, NVRA Coordinator
- R. Curt Zickafoose, Legislative Director
- Brian Messer, Chief Financial Officer

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Budget Justification for Electronic Voter Registration Initiative (EVRI) with EASE

Development		
Travel	\$3,900.00	travel to another state for personnel to observe their
	¢ 4,500,00	system
Supplies	\$4,500.00	Miscellaneous items needed - cables, peripherals,
Contractual	\$157 500 00	flash drives/cds, office supplies Contract for data standardization
Total Development	\$157,500.00 \$165,900.00	Contract for Gata standardization
Total Development	φ105,700.00	
Implementation		
Equipment	\$15,000.00	Server
	\$121,500.00	23 kiosks
Supplies	\$8,700.00	Miscellaneous items needed - cables, peripherials,
		flash drives/cds, office supplies
Contractual		Kiosk networking, programming
		IT support: programmers, applications developers
		Marquee Change Order
		PCC Change Order for SVRS
		Licensing
Total Implementation	\$487,625.00	
Testing & Training		
Travel	\$2,750.00	Travel for site visits & training sessions
	• - • · ·	
Supplies	\$5,000.00	Creation of training materials
Contractual	\$15,750.00	Testing for ADA Compliance
Other	\$25,000,00	Public Relations - providing information to voters
Shidi		Costs associated with training state & local election
		officials (facilities, etc.)
Total Testing & Training	\$54,750.00	
Total Justification	\$708,275.00	

-

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## Return on Investment Justification for Electronic Voter Registration Initiative

Voter registration is processed in the 55 counties of West Virginia. Absentee voters must use the FPCA or a combination of West Virginia forms to become registered and request an absentee ballot. This process is slow and time consuming for the voter and the county clerks. This investment will allow us to build processes that will allow a UOCAVA voter to register and request an absentee ballot in a more timely fashion with accurate information that is not dependent upon traditional mail which slows the process.

The Return on Investment from this grant will produce the following:

Type of Transaction	Return on Investment
UOCAVA Voter Registrations	<u>↑ 50%</u>
Absentee Ballot Requests	<u>↑</u> 50%
Acceptance of completed ballot requests	↑ 100%
Participation by NVRA agencies	↑ 20%

## State of Wisconsin\Government Accountability Board

212 East Washington Avenue, 3<sup>rd</sup> Floor Post Office Box 7984 Madison, WI 53707-7984 Voice (608) 266-8005 Fax (608) 267-0500 E-mail: gab@wisconsin.gov http://gab.wi.gov



JUDGE THOMAS H. BARLAND Chair

> KEVIN J. KENNEDY Director and General Counsel

July 13, 2011

Robert J. Lavelle Grants Officer Defense Human Resources Activity 4040 North Fairfax Drive Arlington, VA 22203-1613

Dear Mr. Lavelle:

The Wisconsin Government Accountability Board is pleased to present our application and technical proposal for the Electronic Absentee Systems for Elections program.

We believe Wisconsin is presenting a viable proposal for improving the voting experience of UOCAVA electors and decreasing their various failure rates throughout the voting process. We intend to implement the system described in the accompanying application for the 2012 November General Election. We look forward to hearing from you.

If you have any questions, please contact Nathaniel E. Robinson, Elections Division Administrator at 608-267-0715 or <u>Nat.Robinson@wi.gov</u>. Thank you.

Sincerely,

GOVERNMENT ACCOUNTABILITY BOARD

Kevin J. Kennedy

Kevin J. Kennedy Director and General Counsel

Cc: Nathaniel E. Robinson Elections Division Administrator Wisconsin Government Accountability Board

# Wisconsin Electronic UOCAVA Voting Assistance System

Administrative/Business Contact: Nathaniel E. Robinson Elections Division Administrator Wisconsin Government Accountability Board 212 East Washington Avenue, 3<sup>rd</sup> Floor Madison WI 53707-7984 Phone: 608-267-0715 Fax: 608-267-0500 Nat.Robinson@wi.gov

<u>Technical Contact</u>: <u>David Grassl</u> IT Team Lead Wisconsin Government Accountability Board 212 East Washington Avenue, 3<sup>rd</sup> Floor Madison WI 53707-7984 Phone: 608-261-2019 Fax: 608-267-0500 <u>David.Grassl@wi.gov</u>

Technical Proposal from the State of Wisconsin for Application to the Electronic Absentee Systems for Elections Grant Proposed for the period of August 2011 – September 30, 2013

CFDA: 12.217 BAA: H98210-BAA-11-0001 Formerly: HQ0034-FVAP-11BAA-0001 CAGE Code: (b)(4) DUNs: (b)(4)

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## TECHNICAL APPROACH AND JUSTIFICATION

## 1. Executive Summary

The Wisconsin Government Accountability Board (G.A.B.) is proposing the creation of an immediate online ballot delivery system for UOCAVA electors. This System will be integrated with our existing voter look-up, online registration, and ballot tracking tools to create a cost-effective process which offers a simple, straightforward voting experience. The online ballot request and delivery system would allow UOCAVA electors to access an online ballot immediately without having to wait for a reply or email from an election official.

The proposed System will require the creation of four new primary applications -- a Ballot Preparation Tool, an Online Absentee Ballot Request feature, an Online Ballot Delivery Tool and a Data Collection and Evaluation portal. The overall System will include the following high level components:

- 1. Ballot Preparation Tool This tool will allow election officials to enter their ballot styles in a single template that can then be used by G.A.B. for the online ballot delivery tool, by voting equipment programmers, and by ballot printers.
- 2. Voter Look-up Tool UOCAVA electors can see if they are registered and if so, verify that their information is current.
- 3. Online Registration Tool The registration tool will allow military electors to provide needed personal information online immediately, and overseas electors to complete a registration form, print off their pre-filled registration form, sign, and mail.
- 4. Online Absentee Ballot Request UOCAVA electors will be able to request an absentee ballot in conjunction with their voter registration.
- 5. Online Ballot Delivery Once online ballots are available, military voters as well as registered overseas voters will be immediately directed to their online ballot, where they can mark, print, and mail the ballot.
- 6. Notifications The System will send notifications to election officials regarding UOCAVA electors' usage. UOCAVA electors who have previously used the System will be notified when ballots are available online.
- 7. Online Ballot Tracking The System will be connected to the current online ballot tracking system for UOCAVA electors and will automatically update when an UOCAVA elector prints their ballot and when a local election official scans a returned ballot.
- 8. Data Collection and Evaluation An application will be created to gather UOCAVA data from the SVRS, the Wisconsin Election Data Collection System, and the online ballot delivery tool, and make that data available to the public. This information will be used to evaluate system performance and improve services to UOCAVA electors.

## 2. Goals and Objectives

The goal of the G.A.B. is to develop innovative approaches to absentee voting and to reduce voting impediments faced by UOCAVA electors, thereby improving their voting experience.

UOCAVA electors face increased burdens at every phase of the election and absentee voting process. Wisconsin's elections are administered at the municipal level and this decentralized model may create an additional burden for those UOCAVA electors who reside in smaller jurisdictions. Out of Wisconsin's 1,850 municipalities, over 1,600 have a population of fewer than 5,000. Sixty percent of Wisconsin's municipal clerks are part-time employees, and fifty-four percent have an additional full-time job. Some municipalities do not have internet access or a scanner or fax machine, creating difficulties when transmitting absentee ballots electronically. The lack of consistent availability of some local electors. This delay is especially burdensome for UOCAVA electors and can contribute to the failure rates for UOCAVA electors in various stages of the absentee voting process.

The creation of this new System and its integration with existing election applications will help overcome many of the burdens UOCAVA electors encounter during the absentee voting process. Allowing military electors and registered overseas electors to immediately access their ballot will eliminate the additional burdens for UOCAVA electors caused by the inconsistency in local election official availability and lack of technology in some jurisdictions.

The proposed System is based upon the following three guiding principles:

- Simple, straightforward tools for UOCAVA electors that are easy to use and provide quick results
- Simple, straightforward tools for election officials to use and make it easier for them to serve UOCAVA electors
- Integration with existing tools to ensure consistent services to UOCAVA electors statewide and to maximize efficiency and cost effectiveness

The System will be located on the G.A.B.'s Voter Public Access (VPA) website. This website currently functions as a single portal where voters can look up their polling place, check their voter registration status, and soon will be able to fill out a voter registration form online. Currently, UOCAVA electors can check the status of their absentee ballots on the VPA website. Expanding our existing VPA website with new features allows us to improve the services being offered to UOCAVA electors. They can continue to use the same website they have always used to access the new features.

Integrating the new services with existing tools provides many benefits, including ease of upgrades and improvements. It simplifies system development and minimizes duplication of efforts, which reduces cost and implementation timelines. The integration with other current election administration applications will make the System more sustainable.

Using the existing VPA website improves the scalability of the System. VPA is already built to meet statewide demand based on usage, scaling up during peak usage and down during slow periods. This allows for potential expansion of services to other voting populations in addition to serving military and overseas voters. These services could also be offered to veterans, individuals with disabilities and other groups that could benefit from the enhanced absentee balloting features.

The use of an in-house IT team and existing infrastructure will eliminate any proprietary issues after the duration of the grant thus saving money as the System is upgraded with changing technologies and legislation. The G.A.B. will partner with the Wisconsin Department of Administration, Division of Enterprise Technology (DET) during the System's development, implementation and evaluation. The G.A.B. has a well-established partnership with DET in the management of the technical aspects of the Statewide Voter Registration System (SVRS), the Wisconsin Election Data Collection System (WEDCS) and the VPA website. Collaborating with DET in the creation of this System will ensure a smooth transition and knowledgeable assistance without proprietary conflicts.

The following sections provide additional details regarding the high-level components of the proposed System:

1. Ballot Preparation Tool

Currently, Wisconsin's 72 county clerks and 1,850 municipal clerks must enter contests and candidates in the SVRS system in order for a sample ballot to appear to voters on VPA. Some clerks must also provide contest and candidate information to voting equipment vendors so that voting equipment can be programmed to correctly display and tabulate ballots, while other clerks program the voting machines themselves. In addition, contest and candidate information must be provided to companies that print the physical ballots. For many clerks, this results in three separate repetitions of the same work. This sometimes leads to inaccuracies and omissions in the sample ballot on VPA.

Under this proposal, technical staff will build an interface where contest and candidate data can be entered into a single location. This interface will import contest and candidate information into SVRS and make reports available in a format that can be forwarded to voting equipment programmers and ballot printers. For UOCAVA electors, this will ensure the ballot information entered into SVRS is the same as that which appears on the official ballot. Using the online ballot delivery tool, UOCAVA electors can print correct ballots instantly, with no delays in contacting their municipal clerk and no need for the clerk to prepare and transmit a ballot by fax or email.

2. <u>Voter Look-up Tool</u>

The Voter Public Access website already allows UOCAVA electors to verify whether their registration is current and accurate.

Military electors do not need to be registered to vote under Wisconsin law; however, it is still necessary to collect some personal information from them to ensure that they can access all available services. Therefore, Wisconsin does keep such data in the SVRS for military voters. Overseas electors must be registered to request an absentee ballot. UOCAVA electors using the System whose registration information is current may immediately request an absentee ballot online. Voters who need to update their registration or voter information will be directed to the online registration tool.

Minor changes to the current voter look-up tool will be necessary to create links to the online registration tool and the absentee balloting tools.

#### 3. Online Registration Tool

The online registration tool for UOCAVA electors will use the existing voter registration portal available to voters on the VPA website.

Even though military electors are not required to register, they must provide some basic information that the municipal clerk can use to determine the validity of their request. Often a military elector requests an absentee ballot without providing the necessary personal information. This requires the municipal clerk to follow up with the elector before sending the absentee ballot, further delaying the transmission of that ballot.

The use of the online registration tool will eliminate these delays for military electors. Military electors will be directed through a series of questions to gather basic voter registration information. Because they are not required to be registered, they can immediately update their personal information and will be directed to the Online Absentee Ballot Request portal.

Overseas electors are required to be registered under Wisconsin law and are required to sign a paper voter registration form. The online registration tool will guide them through a series of questions and will generate a pre-filled voter registration form. The overseas elector will need to print, sign, and mail the form to their municipal clerk, who will complete the registration process when they receive it. Once the overseas elector has printed their voter registration form, they will be directed to the Online Absentee Ballot Request portal.

## 4. Online Absentee Ballot Request Tool

The Online Absentee Ballot Request Tool will be created as part of this System. This new tool will pull in the voter's registration information and will generate an absentee ballot request. It will give the voter the appropriate options depending on the elector's UOCAVA status. Military electors can request absentee ballots indefinitely, for a specific election, or for all elections in a calendar year. Overseas electors can request ballots for Federal elections for up to two general election cycles. Information entered by the voter will be saved as an absentee application in SVRS to assist clerks in record-keeping and make ballots available promptly for future elections.

Overseas electors who are using the Online Absentee Ballot Request Tool, but are not previously registered, will not have their absentee application information automatically updated in the SVRS. However, when an overseas elector prints their registration form to be mailed to the appropriate clerk, their absentee ballot request will also print. The System will generate and email to notify the municipal clerk that the overseas elector's registration and absentee ballot request is en route. The clerk will then process the absentee ballot request at the same time as the registration.

If ballots are currently available, military and registered overseas electors will be directed to the Online Ballot Delivery tool. If ballots are not currently available, the voter's absentee ballot request will be updated in the voter registration system, and the voter will be sent a notification when ballots become available for the next election.

#### 5. <u>Online Ballot Delivery Tool</u>

The Online Ballot Delivery Tool is a new feature that will allow UOCAVA electors to "pick-up" their ballot online. The tool will pull the voter's registration information from SVRS, allowing the Online Ballot Delivery system to know what ballot to present the voter, and to track that the voter has "picked-up" their ballot.

Military and registered overseas electors will have the capability to use the Online Ballot Delivery Tool without sending a separate absentee ballot request. They will search for their name and date of birth using the voter look-up tool. Once the elector identifies their information is in the Statewide Voter Registration System (SVRS), they will request and be provided with an online ballot all in the same online session. Military electors who are not in the SVRS will be directed through the online registration tool and will be provided an online ballot after supplying personal information. Overseas electors who are not in the SVRS (not registered) will be directed through the online registration tool but must print, sign, and mail their registration before being provided with an online ballot.

The Online Ballot Delivery Tool will display the voter's ballot, and allow the voter to mark the ballot from their computer screen. The voter will then be able to print the ballot and mail it to their municipal clerk. A foldable, certification envelope will be printed as well, with all the appropriate information pre-filled, including the address where the voter should mail the ballot.

Once the ballot is printed, the System will update the SVRS to show the ballot has been issued and a notification will be sent to the appropriate municipal clerk that an absentee ballot has been printed by an UOCAVA elector. When the local election official receives the voter's ballot, the official will update the record in the SVRS to show that the ballot has been returned. The voter can then use the Online Ballot Tracking Tool to view the status of their ballot. If desired, notifications can also be sent to the elector that their ballot has been received.

#### 6. <u>Email Notifications</u>

Notifications are sent to UOCAVA electors at the email address that is provided during the use of the Online Registration Tool, Online Absentee Ballot Request Tool and/or the Online Ballot Delivery Tool. Notifications to municipal clerks are sent to the email address on file in the SVRS. Sample notifications include:

- UOCAVA electors with current absentee applications will be notified when ballots are available for online delivery.
- Overseas electors with a pending voter registration will be notified when the registration has been processed and when they are able to use the Online Ballot Delivery Tool.
- An elector will be notified when their absentee ballot is received by the municipal clerk.
- Election Officials will be notified when electors access the tools on VPA and update their voter registration, request an absentee ballot, and/or print an absentee ballot.

Since most UOCAVA electors are away from their residence, the traditional notices published in local publications and posted in local facilities do not serve them. Sending an email notification when online ballots are available will provide a useful notice to UOCAVA electors as well as a reminder of an upcoming election.

## 7. Online Ballot Tracking

Through VPA, military and overseas electors can currently check the status of their absentee ballots. Because the Online Ballot Delivery Tool will be integrated with the SVRS and VPA, all ballots could be tracked using the same application. This provides a higher level of service to our military and overseas electors.

#### 8. Data Collection and Evaluation

The System will include a portal specifically for local election officials with dashboards and other quick statistics and metrics. The portal will also display some statistics online to be viewed publicly, creating transparency during the absentee balloting process.

The dashboard for local election officials provides immediate information on the use of the system, and how their UOCAVA electors are being served. This will help UOCAVA electors during the election cycle as their appropriate municipal clerk has all of the updated information needed to assist them.

After an election is complete, statistics from the SVRS and the tools used through VPA can be evaluated to improve UOCAVA absentee balloting procedures for future elections. The SVRS already maintains information on all UOCAVA electors, including when a ballot was sent and received by the clerk. Ballots requested through the Online Ballot Delivery Tool will be compared to the delivery and return rates of absentee ballots sent to UOCAVA electors through other methods to determine the effectiveness of the System.

# Smartphone Application

After the development of the Online Ballot Delivery Tool, the System will be made available on a Smartphone application. The use of wireless technology continues to grow. Providing UOCAVA electors the opportunity to download an application on their Smartphone will assist them in using the System for all elections and in any location. The availability of a Smartphone application will not only make voting more accessible, it will serve as a reminder of election activity and the user will know exactly where to access a ballot for each election on a routine basis.

The absentee ballot must still be printed and mailed to the appropriate clerk so the user's Smartphone must be connected to a printer in order for the UOCAVA elector to complete the absentee voting process.

# Security

Security must be at the center of all the services offered to UOVACA electors. Electors must feel confident their personal information is protected. Ballots must be protected against security breaches such as tampering, duplication, interception, or other forms of corruption. The System will contain a robust security architecture to ensure voter confidence and system security.

Overall, the system will be secured using the following high-level components:

- HTTPS / SSL All websites developed as part of this system will use industry standard internet data security protocols. This will ensure any information provided by the elector as part of the system is secured.
- User ID and Password Authentication Electors will need to set up their own unique user ID and password to access certain components of the System. Only those users will be able to retrieve their personal information in order to cast their ballot.
- Cyber Threats Industry standards and best practices will be used to prevent cyber attacks, including but not limited to use of load balancing and virtual IP addresses to prevent denial of service attacks, use of tools such as CAPCHA to prevent bots, and use of appropriate programming standards to prevent SQL injection attacks.
- Data Retention All data entered by and/or presented to users will be posted and stored on the secure web server and database side of the System. No data will be posted or stored on the client side. No voted ballot information will be stored.
- Record Storage The System will be housed in the official State of Wisconsin owned and operated Data Center. The Data Center provides industry standard security measures to protect State systems such as voter registration, driver licensing and social service records.

 Ballot Security – The voted ballots that are printed and returned to clerks will be given a unique identifier and a tamper-resistant barcode. The barcodes will not be readable if tampered with or photocopied. The System will alert the municipal clerk if more than one ballot with the same unique identifier is returned.

In addition, the G.A.B. will address the authenticity of the UOCAVA elector and their absentee ballot during the development of the System. The System is designed to eliminate the dependence on the municipal clerk for an electronic ballot. This changes the clerk's direct oversight in issuance of absentee ballots and allows any person identifying as an UOCAVA elector to access an absentee ballot online. The clerk's oversight, however, is built into the System's processes.

The municipal clerk will receive an email notification when a ballot is printed, including the personal information of the UOCAVA elector. The clerk maintains the opportunity to validate the UOCAVA elector, their request and the ballot before the absentee ballot is forwarded to the polling place and counted. As previously stated, the ballot printed from the Online Ballot Delivery Tool will have a unique identifier and tamper resistant barcode to ensure that the ballot has not been duplicated. The elector will also receive a notification when their absentee ballot are counted until Election Day, this will safeguard the UOCAVA absentee voting process.

# Summary

Funding for this application will provide improved services to Wisconsin's UOCAVA electors. By establishing a single location for voters to register, apply for absentee ballots, and print absentee ballots on demand, the System will remove a number of obstacles UOCAVA electors face throughout the voting process. Combining the new Online Ballot Delivery Tool with the Statewide Voter Registration System and email notifications will also benefit Wisconsin's local election officials. They will be able to track UOCAVA electors' ballots more easily and provide a higher level of service.

Using the G.A.B.'s current partnership with the Wisconsin Department of Administration, Division of Enterprise Technology will ensure that the development process is responsive to the needs of voters, local election officials, and the G.A.B. Developing this project in-house means that Wisconsin will own the software and be able to integrate the System with existing applications, and easily maintain and modify it in the future.

# 3. Schedule and Milestones\*

- Initial Phase: August 2011 October 2011: The initial phase of the project consists of defining the project, planning a detailed timeline, recruiting necessary staff and tools and informing all local election officials. Some initial planning will be accomplished through the grant application process. However, project objectives and timelines may need to be redefined based on the funds available. G.A.B. staff will evaluate new technologies and solutions, obtain software and other supplies, and recruit management, support, and technical staff for the project.
- 2) <u>Analysis Phase: November 2011 December 2011</u>: The second phase of the grant will define business requirements, security needs, and database structure. It will also model expected usage by UOCAVA voters, voting equipment programmers, ballot printers, and local election officials. During this phase, newly hired staff will work with G.A.B. subject matter experts to document existing features of the SVRS and VPA systems, and extrapolate required features of the upgraded system.
- 3) <u>Design Phase: January 2012 March 2012</u>: A third phase of the grant will consist of designing new software and updated software code for the SVRS and VPA systems. During this phase, the system architects will create system architecture and data models, design views for software and mobile devices, and design system reports. Also during this phase, staff will begin asking for user input to ensure that new features meet user needs.
- 4) <u>Construction Phase: March 2012 August 2012</u>: During this phase, technical staff will build the system to match the previously formulated designs. The final product will be tested, and training documents will be prepared. The developed software will be demonstrated to local election officials and electors to further refine its features.
- 5) Implementation Phase: August 2012 November 2012: After the system is complete, clerk users will be trained on the new features, and the system will be installed in production. Instructions for UOCAVA electors will be posted online. Any changes identified during user acceptance training will be implemented. After September 19, 2012, UOCAVA electors will use the System to register, apply for absentee ballots, and print ballots to be mailed back to their municipal clerk for the November General Election. G.A.B. staff will support clerks and electors with questions on how to use the System, and record any issues for follow up.
- 6) Evaluation and Reports Phase: December 2012 September 2013: During this phase, surveys of UOCAVA electors and municipal clerks will be conducted to gauge their feedback on the System and its usage. A report covering financial costs, usage statistics, comparison to past elections, and elector and clerk satisfaction will be submitted to the FVAP by April 2013. Issues with the software identified during the November 2012 and April 2013 elections will be corrected and a final update to FVAP will be submitted in September 2013. Project staff will transfer maintenance and support duties to regular G.A.B. Staff.
- \* The Schedule and Milestones in this application are based on the assumption that the grant will be awarded in August of 2011. A later award date may affect the dates and timelines described in this section.

List of Major Tasks and Approximate Deadlines

#### **Initial Phase**

Project Charter Initial Project Plan Staff Hired Staff Workspace and Supplies

#### **Analysis** Phase

**Requirements** Document Define Software Architecture Data Diagrams Process Flow and Usage Scenarios Draft List of Issues

#### **Design Phase**

**Design Specification** January 30, 2012 Data Model Object Models Test Plans March 27, 2012 Mobile Devices Purchased March 27, 2012 Program and Financial Report 1 April 30, 2012

### **Construction Phase**

Beta Version of Product **Testing Results** Training Documentation

#### **Implementation Phase**

Training of Election Officials Complete First Use of System Program and Financial Report 2 November Election Data Collection Complete

# **Evaluation and Reports Phase**

Survey of Voters and Clerks Complete 2013 April Election (Military Voters Only) November 2012 Usage and Data Analysis Report Program and Financial Report 3 Updated Issues List Final Software Updates Transition to G.A.B. Staff Support Final Data Report/Program and Financial Report 4

- October 3, 2011 October 31, 2011 October 31, 2011 October 31, 2011
- November 7, 2011 November 14, 2011 November 28, 2011 December 12, 2011 December 19, 2011
- February 13, 2012 February 27, 2012

July 2, 2012 July 30, 2012 August 6, 2012

- September 14, 2012 September 19, 2012 September 24, 2012 November 6, 2012 December 1, 2012
- February 18, 2013 April 1, 2013 April 30, 2013 April 30, 2013 May 6, 2013 August 5, 2013 September 30, 2013 September 30, 2013

# 4. <u>Reports</u>

This is a list of reports with approximate deadlines based on a six-month reporting period. Reports can be provided on a quarterly basis, if requested. Additional reports can be added if desired.

<b>Program and Financial Report 1</b> SF-425 Federal Financial Report Program Report on System Design	April 30, 2012
<b>Program and Financial Report 2</b> SF-425 Federal Financial Report Program Report on System Construction and Testing	September 24, 2012
<b>Program and Financial Report 3</b> November 2012 Election Data Analysis Number of Participating Jurisdictions and Voters Comparison of Outcomes, 2010 to 2012 User Satisfaction Data SF-425 Federal Financial Report Program Report on System Performance and Issues	April 30, 2013
<b>Program and Financial Report 4</b> April 2013 Election Data Analysis SF-425 Federal Financial Report	September 30, 2013

Addenda to Previous Program Reports

Program Report on System Updates and Maintenance

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The Wisconsin Government Accountability Board (G.A.B.) is proposing the creation of an online balloting system for UOCAVA electors. The State of Wisconsin's decentralized election administration model can present challenges to UOCAVA electors may live in municipalities whose clerks have no fax machine or email, and/or very limited and inconsistent office hours.

The G.A.B.'s grant proposal will allow for any UOCAVA elector from Wisconsin to verify registration information or register online, request an absentee ballot, and immediately access their ballot online. UOCAVA electors will now have all of their voting needs available online at their convenience without having to contact their municipal clerk. This provides coverage and assistance to UOCAVA electors in all of 1,850 Wisconsin municipalities, which comprise 1/6 of the local election jurisdictions in the United States.

The System being proposed by the G.A.B. will be integrated with the current Statewide Voter Registration System (SVRS), the Wisconsin Election Data Collection System, and Wisconsin's Voter Public Access (VPA) website. Currently, UOCAVA voters can use VPA for voter look-up and absentee ballot tracking, and online registration will be available by fall 2011. The new system will expand upon these features to provide complete and immediate absentee ballot access to UOCAVA electors. The online balloting system will allow most UOCAVA electors to access their ballot in one session without waiting for an election official to respond to a ballot request.

The System will be developed with the use of a newly hired in-house consultant IT staff made up of a technical team lead, a solutions architect, and a database architect. The consultant IT staff will work under the general oversight of G.A.B.'s current IT Team Lead, David Grassl, as it integrates the System with other election IT applications. The Wisconsin Department of Administration's Division of Enterprise Technology (DET) will be assisting the G.A.B. in the selection of the grant IT staff. Using in-house IT staff and partnering with another state agency will ensure the State owns all proprietary information. The G.A.B. will be left with the license and code for the completed System allowing any updates and improvements to be made without renegotiating contracts.

In addition to IT staff, the G.A.B. will hire four full time employees for the two years and one full time employee for one year of the project's development, implementation, and post-production evaluation and its subsequent revisions. The four full time employees on staff for two years include a project manager, a training coordinator, an administrative assistant, and a financial specialist, all under the supervision of the Elections Division Administrator. A Help Desk staff member will be added for one year to assist in the implementation and evaluation of the online balloting system. Other current G.A.B. staff members, including the Elections Division Administrator, a staff attorney, the Elections Supervisor, election specialists, trainers, and current IT staff, will contribute expertise as needed during the project development, implementation, and evaluation.

The project manager will ensure that technical, training, financial, and support staff are working together to complete system milestones in a timely manner. The project manager will be gathering data and evaluating the workflow and overall strategy during the development of the project. The project manager can then ensure that construction and implementation of the

software proceeds on schedule, and that each of the milestones listed in the Schedules and Milestones section of this application is completed on time. The project manager will also oversee wrap-up of the project, evaluation and final reports, and transition of the System to regular G.A.B. staff.

The financial specialist will ensure that all regular staff working on the grant properly complete federal timesheets and are prorated accordingly. All supplies, reimbursements, information on allowable expenses and auditing reports will be managed by the financial specialist. All of this information will be collected and included in at least four semi-annual financial reports.

The training coordinator will analyze business requirements during the development of the project, then test the software, produce training materials and provide training. The training coordinator and administrative assistant, along with the Help Desk staff, will help train and support users when the System is ready for use. During the evaluation phase, these staff members will administer surveys and gather data to improve the System.

The online balloting system's IT staff will first work closely with voting equipment vendors and county and municipal clerks to construct a Ballot Preparation Tool. This tool will be used by county and municipal clerks to create their ballot style arrangements and then utilized by the Online Ballot Delivery Tool, voting equipment vendors and ballot printers. The G.A.B. intends to use standard formats, such as the EML (Election Mark-up Language) format outlined in the Voting Information Project (VIP), when constructing the Ballot Preparation Tool. This will allow voting equipment vendors to import and export candidate, contest, and results data in VIP/EML standard format. Since 31 states currently use the EML data format, many other states could modify the Ballot Preparation Tool to interface with their voting equipment.

The G.A.B. will also be collaborating with municipal and county clerks to gather their input as the System is being developed. As the election administrators of their local election jurisdictions, clerks will receive email notifications from the online balloting system, will track absentee ballots, and will determine the authenticity of UOCAVA electors and their absentee ballots. The municipal and county clerks will also have an opportunity to provide feedback on the System and its usage during testing and then again after its implementation for the 2012 General Election.

The G.A.B. will also be partnering with the Wisconsin Department of Military Affairs to create a focus group of military personnel to test and provide feedback on the online balloting system. The G.A.B. also plans on using the military focus group as a sounding board for the full implementation plan and to gather ideas on the promotion of the online balloting system.

<u>Definition and Formalization of the Applicant's Strategic Goals</u>: The G.A.B.'s goal is to improve the absentee balloting process for UOCAVA electors. The new System has several different components that address every major obstacle to military and overseas voters' experience, making registration, absentee requests, and voting the ballot as seamless and convenient as possible.

The ballot preparation interface will ensure that UOCAVA electors have access to the same ballot that all other voters do. Municipal clerks will have to enter contest and candidate information in only one location, and that information will be used by voting equipment programmers, ballot printers, and the Online Ballot Delivery Tool available to UOCAVA electors. This will eliminate current problems with the sample ballot available on the VPA being sometimes incomplete or incorrect.

The current VPA website allows voters to see if they are registered and to verify that their address and personal information is correct. Online registration will allow Military voters to instantly update this information, although overseas electors must mail in a paper form to register.

A new Online Absentee Ballot Request Tool will ensure that absentee ballot requests are immediately entered into the SVRS, allowing voters to apply online at any time and eliminating the delay of applying by mail or the necessity of contacting their local clerk to apply by fax or email. Having the ballot available online for immediate printing ensures that every UOCAVA elector receives their ballot with enough time to return it and have it counted.

The proposed online balloting system also assists local election officials who do not have the needed technology to electronically transmit a ballot by allowing them to direct electors to the Online Ballot Delivery Tool. These smaller municipalities do not have the financial means to pay full time staff or provide the needed technical equipment required to transmit ballots electronically.

An additional strategic goal is to save costs by building a system with in-house staff without the use of an outside vendor. The use of in-house staff will allow the System to be integrated with current technology without concerns about proprietary information. The in-house staff will also be able to make changes and updates as discovered through the evaluation phase without having to worry about what has been established by a vendor contract. The use of in-house staff will also ease the eventual transition from project staff to regular staff who will maintain the System indefinitely.

Analysis and Measurement of Current Processes: Currently, UOCAVA electors can view a sample ballot online through the VPA website, but they cannot print that sample ballot and return it. The sample ballot allows UOCAVA electors to fill out a State or Federal Write-In Absentee Ballot with correct candidate information. The sample ballot is dependent, however, on the municipal clerk's use of the SVRS, the data entered there, and the timeliness of the data entry. Some municipal clerks are responsible for posting their own contest and candidate information to SVRS, while other municipalities rely on the county clerk for that service. This means that all ballot data may not be consistently entered in the SVRS and thus not displayed on VPA. Voting equipment vendors and ballot printers use a separate template or system for gathering ballot programming and printing information. Municipal and county clerks must enter contest and candidate information into at least two locations separately, meaning the printed ballot and sample ballot on VPA may not match.

The current process used for UOCAVA electors to obtain an absentee ballot in the State of Wisconsin begins with verification of registration or voter information. Military electors are not required to register but their absentee ballot request must provide personal information that will allow the elector to be identified. Overseas electors must be registered in order to obtain an absentee ballot. If the overseas elector is registered the absentee ballot request can be honored immediately, but those who are not registered must submit a registration form before their absentee ballot request can be honored. The Federal Postcard Application works as both a registration form and an absentee ballot request.

Once a valid absentee ballot request is received, the municipal clerk must transmit an absentee ballot to the UOCAVA elector within 24 hours of receiving that request. If the UOCAVA elector requests the absentee ballot be mailed, the municipal clerk mails the ballot, certificate envelope and instructions to the elector. If the UOCAVA elector requests the ballot be emailed or faxed to them, the municipal clerk must comply. The municipal clerk must initial a ballot and then fax or email the ballot, the certificate envelope, and instructions to the elector. If the municipal clerk must comply are required to work with a neighboring municipality or county which has the appropriate equipment.

The municipal clerk then tracks the transmission of the absentee ballot in the SVRS. The VPA site makes the ballot information from SVRS available online for all UOCAVA electors to track the status of their ballot. Not all municipal clerks use the SVRS, so some clerks have another municipal or county clerk track this information on their behalf. This results in information entered through a secondary source. The system also defaults to the date the information is being entered, resulting in some inaccurate statistics.

The absentee ballot may be transmitted electronically but it must be returned by U.S. Postal Mail or a private delivery company. The absentee ballot must be accompanied by a completed certification envelope and contain the signature of the elector and a U.S. citizen witness. When the absentee ballot is returned the municipal clerk must then update the UOCAVA elector's absentee ballot information in the SVRS to reflect the receipt of that ballot.

The G.A.B. does not have accurate quantitative statistics on the time between the date an absentee ballot request was received and the date the ballot was transmitted. However, based on discussions with municipal clerks, it is apparent that the absentee ballot is not consistently sent within the 24 hours required by law. The municipal clerks without fax or scanning equipment may take several days to transmit the ballot because of their office schedules and the availability of another office's equipment used to transmit the absentee ballot.

In the 2010 General Election, 64% of the absentee ballots sent to UOCAVA electors were not returned by the elector. This data indicates that UOCAVA electors are not updating their information, are not receiving their absentee ballots or are failing to return the ballot. The G.A.B. anticipates that number of unreturned ballots will decrease as a result of the online balloting system because UOCAVA electors will have a convenient platform to verify mailing information, and instantly print a ballot instead of waiting for their clerk to respond to their request. This will also save transit time because mail delivery of ballots sent to foreign countries

and military posts can be inconsistent and slow. Once in a foreign country's mail system, the U.S. has no authority or control over the handling of that absentee ballot.

UOCAVA electors who request to have an absentee ballot transmitted electronically can have the ballot emailed or faxed to them. This eliminates the transit time of mailing a ballot, but the amount of time between when the request is made and when the ballot is sent can vary. If a military elector only has a day or two at one post before moving to another location without internet access, the emailed or faxed ballot may not be received in time. In the 2010 General Election only 34% of absentee ballots emailed to military electors were returned and 38% of absentee ballots emailed to overseas electors were returned. This compares to a return rate of 67% for non-UOCAVA electors.

Identification of each Process and the Elements that are Related to the Processes: The System will first require municipal and county clerks to enter their ballot information into the Ballot Preparation Tool. This tool would be used to upload data into SVRS for sample ballot display on VPA and use in the Online Ballot Delivery Tool. The Ballot Preparation Tool will also be used by voting equipment programmers and printers to ensure the same ballot is available in all locations.

The online ballot will be available at the same time as paper ballots, at least 45 days before federal elections. All UOCAVA electors with an email address on file will receive a notification when absentee ballots are available. The UOCAVA elector will have the option to download a Smartphone Application or visit the VPA website to begin the process of retrieving an absentee ballot online. The UOCAVA elector will still have the option to receive a ballot by mail or fax (if the internet is not available to the elector) but all email requests will be directed to the Online Ballot Delivery Tool.

Through the Smartphone Application or VPA, the UOCAVA elector will identify as a military or overseas elector. Once the elector has verified their UOCAVA status, they will enter their name and date of birth and VPA will search the SVRS for their information. If the elector's information is in the SVRS, they will be asked to select their name from the matches found. If the elector's information is correct, they will be able to complete an absentee application and then, if ballots are available, directed to a ballot based on their address.

If UOCAVA electors find their information is incomplete, out of date or do not find their information when searching on the VPA site, they will be directed to the Online Registration Tool. Military electors' information will be entered automatically or updated in the SVRS since they are not required to register. Overseas electors who need to register will be directed to print, sign, and mail a registration form, and an optional absentee application form, to the appropriate clerk. The clerk's information, an origami envelope, and instructions will print with the registration and absentee application form.

Overseas electors who are already registered or military electors who complete the online registration process can immediately request an absentee ballot online. Electors can use this feature to apply for an absentee ballots months in advance of an election if desired. They can request a ballot to be delivered by mail or fax, or to receive email notification when online

ballots are available. Overseas electors who must mail in a registration form will also receive an email notification when their registration has been processed and they are able to use the Online Ballot Delivery Tool.

Once directed to the Online Ballot Delivery Tool, the elector will be directed to mark, print, and mail the ballot to the appropriate clerk. Instructions, a certification, and an origami envelope with the appropriate clerk's address and contact information will print with the ballot. Both the envelope and the ballot will print with a unique identifier and a tamper-resistant bar-code. Barcodes will not be readable if tampered with or photocopied. The System will alert the municipal clerk if more than one ballot with the same unique identifier is returned.

When the online ballot is printed by the UOCAVA elector, the SVRS will record that an absentee ballot was "sent" to that UOCAVA elector and an email will be sent to the appropriate municipal clerk informing them that an absentee ballot was printed and for which elector. The email notification allows the municipal clerk an opportunity to confirm the UOCAVA elector's status before the ballot is counted. The clerk will update the SVRS when the absentee ballot is received. The updated information in SVRS will display on VPA for the UOCAVA elector to check the status of their ballot.

The System will also be integrated with the Wisconsin Election Data Collection System (WEDCS). UOCAVA absentee ballot data from the online balloting system will be uploaded into the WEDCS and combined with other absentee data collected. The data will then be displayed online for public access and transparency.

Identification of Potentials Risks and Mitigating Strategies:

- <u>Not Completing Project on Time</u> The schedule and timeline is structured to allow ample time for project completion. The project has been thoroughly planned but has the flexibility to pull the resources of regular staff if needed.
- <u>Lack of Cooperation from Voting Equipment Vendors</u> The grant team would provide financial incentives to the vendors for exploring a uniform ballot preparation template.
- <u>Legislative Hurdles</u> This project may require some clarifying statutes or rules before its full implementation.
- Local Election Official Non-Compliance Grant staff will follow up with non compliant clerks to ensure proper usage.
- <u>Non-UOCAVA Electors Attempting to Use the System</u> The municipal clerk will
  receive an emailed absentee ballot request when the absentee ballot is printed. If the
  clerk has reliable information that the voter is falsifying a UOCAVA status the ballot can
  be challenged at the polling place.
- <u>Duplication of Ballot</u> A unique identifier will be printed on the ballot so the System will alert the clerk if more than one ballot with that unique identifier is returned.

Formalization of Performance Indicators for each Process: The Ballot Preparation Tool's performance will be measured by the creation of an instrument that can be used by the SVRS, voting equipment programmers, and ballot printers. The second performance indictor will be the usage of the Ballot Preparation Tool to create all ballots for Wisconsin's 1,850 municipalities. The number of ballots styles will vary upon election. The 2012 General Election will provide the first opportunity to use the Ballot Preparation Tool. The April 2013 Spring Election, however, will present a greater challenge because the ballots will contain a wider variety of contests and candidates for municipal, county, and school district offices. The number of municipalities that use the System for the November 2012 and Spring 2013 elections will be tracked to ensure compliance. A list of issues regarding ballot programming, printing, and online display will be maintained for future action.

Performance of the Online Registration and Online Absentee Ballot Request Tools will be measured by the number of voters using these applications and their reported satisfaction with those procedures. Clerk surveys will also identify issues with these features.

The Online Ballot Delivery Tool's performance will be measured within the 2012 General Election Cycle, by comparing return rates of voters who received their ballots via mail or fax with return rates for voters who used the Online Ballot Delivery Tool. These statistics will be compared to data on returned email and faxed ballots from the 2008 and 2010 General Elections.

One of the goals of the System is to reduce the failure rate of UOCAVA electors returning absentee ballots. Quality of performance will be also indicated by how many UOCAVA electors use the Online Ballot Delivery Tool. The performance will also be evaluated by a survey sent to the users of the System after the 2012 General Election. The survey will assist in making improvements to the system itself and its performance. The system's use throughout future election cycles will be tracked.

The success of the data collection and evaluation portal will be measured by how well it integrates with the WEDCS and its automatic uploading to the internet. Its integration with WEDCS will provide instant statistics to municipal clerks and G.A.B. on UOCAVA electors, create one location for all election data to be stored and provide more accurate statistics on UOCAVA electors. This feature will also be evaluated by how easy it is for staff to compile UOCAVA voting statistics for the FVAP Grant reports. The ultimate performance measure for the data collection and evaluation portal will be how well it identifies areas for improving services to UOCAVA electors.

<u>Justification of the Modification to the Existing Processes</u>: UOCAVA electors face increased burdens at every phase of the election and absentee voting process. Wisconsin's elections are administered at the municipal level and this decentralized model may create an additional burden for those UOCAVA electors who reside in smaller jurisdictions. Out of Wisconsin's 1,850 municipalities, over 1,600 have a population of fewer than 5,000. Sixty percent of Wisconsin's municipal clerks are part-time employees, and fifty-four percent have an additional full-time job. Some municipalities do not have internet access or a scanner or fax machine, creating difficulties when transmitting absentee ballots electronically. The lack of consistent availability of some local election officials and technology may, at times, delay the transmission of absentee ballots to electors. This delay is especially burdensome for UOCAVA electors and can contribute to the failure rates for UOCAVA electors in various stages of the absentee voting process.

The creation of the Online Ballot Delivery Tool, the Ballot Preparation Tool and the Data Collection and Evaluation portal, and their integration with existing election applications will help overcome most of the systemic burdens UOCAVA electors encounter during the absentee voting process. Allowing military electors and registered overseas electors to immediately access their ballot will eliminate the additional burdens for UOCAVA electors caused by the inconsistency in local election officials' availability and lack of technology. The Data Collection and Evaluation portal will allow the G.A.B. to collect more accurate and complete statistics which can be used to create policies, procedures, and online applications to better assist UOCAVA electors.

<u>Projections of the Effectiveness of Modifications</u>: The G.A.B. projects that the modifications proposed in this grant application will decrease the number of absentee ballots that do not reach UOCAVA electors. In contrast to the time that may lapse if a UOCAVA elector must wait on the response of a part time local election official without the needed technology, the System will effectively transmit a ballot at the exact time the elector is ready to mark and return it.

The G.A.B. also projects the System will decrease the number of absentee ballots that fail to be returned. By creating a comprehensive process that allows the elector to register, request, receive, mark and print an absentee ballot at one time and at their convenience, UOCAVA electors will be more likely to complete the final step of the absentee voting process by mailing their voted ballots.

The Online Registration Tool will also improve the data of UOCAVA electors in the SVRS because they will be entering their own information. The voter record for a military elector will be created immediately in the SVRS, while an overseas elector's data will be stored until a clerk receives the physical form and confirms the registration.

The Ballot Preparation Tool will guarantee accurate ballots whether they are at the polling place, printed from online, or viewed as a sample ballot. This will effectively create an official online ballot as well as assist in gaining the support of local election officials since they will only need to enter data in one location.

<u>Measurements of Performance</u>: The G.A.B. will administer feedback sessions with members of the military as well as municipal and county clerks to measure the performance and usability of the System outlined in this grant proposal. A survey will also be sent to the users of the Online Ballot Delivery Tool following the 2012 General Election to gather input. The responses to surveys and feedback sessions will be used in the evaluation phase of the grant schedule and improvements and updates will be made based upon this input. Measures of performance will also include data comparisons between the 2008 and 2010 General Elections and the 2012 General Elections as stated above.

# 1. Current and Pending Project Proposal Submissions

The G.A.B. does not have any ongoing projects or proposals related to Electronic Absentee Systems for Elections Grants program.

#### 2. **Qualifications**

Key personnel related to the award of this grant and its implementation:

**Kevin J. Kennedy**: Mr. Kennedy, Wisconsin's chief election official, will act as the Executive Sponsor of this grant. In his role as Director and General Counsel of the Government Accountability Board, Mr. Kennedy is responsible for all projects and policies and their funding.

Mr. Kennedy was the director of the State Elections Board since August of 1983 and was appointed to the position of Director and General Counsel of the Government Accountability Board upon its creation in November 2007. He has over 30 years of experience in election administration and has served on numerous state and national election-related organizations.

**Nathaniel E. Robinson**: Mr. Robinson will lead the online balloting system as the project director and oversee its daily operations. As the Elections Division Administrator, he manages all programs and policies related to elections and their implementation in Wisconsin.

Mr. Robinson became the Division Administrator of the Elections Division of the Government Accountability Board in January 2008. Under his supervision, the Elections Division has already overseen the successful completion of a \$2 million federal data grant and its implementation in Wisconsin. He has a social science background, which includes conducting research; evaluating processes and impacts, developing programs, and designing and implementing evaluation models and project assessment tools. Mr. Robinson has also developed Requests for Proposals (RFPs) and selection criteria; selected vendors; and administered numerous multi-million dollar initiatives with funds received from Federal agencies, the Wisconsin Legislature and the private sector. Mr. Robinson is already involved in this project to a significant degree and will continue throughout its duration.

**David Grassl**: Mr. Grassl will be the principal advisor for the grant project's 1T team and will lead the initial phase of the grant. He will oversee the hiring of new IT staff, and will lead the transfer of knowledge as G.A.B. regular staff assumes the management of the online balloting system after the completion of the grant period.

Mr. Grassl has 10+ years' experience leading technology projects delivering state of the art solutions to solve business issues. He has a results oriented work ethic with a record of success bringing best practices in areas of Project Management, Solution Architecture, Infrastructure Management (ITIL), and Software Development Principles.

He has experience in: Public Sector (Election Systems). Microsoft Technologies (.Net, xRM, SharePoint, Windows Operating System, SQL Server Technologies SSRS/SSAS/ETL/Performance Tuning), Design Patterns (MVC/MVP/MVVM), Agile SDLC Management, PM1 Methodology, Team Management, Developing Statements of Work (SOW), Infrastructure Management (ITIL), Identity Management, and System Security.

Mr. Grassl has partnered with the Government Accountability Board (G.A.B.) to assist in the development and implementation of the Wisconsin Election Data Collection System (WEDCS), the Canvass Reporting System (CRS), and the GIS Design for Redistricting functionality in the State Voter Registration System.

**Consultants**: Three IT consultants will be hired to develop the System after the grant is awarded. They will be recruited and selected based on the qualifications and standards listed in the Budget Proposal section along with additional selection criteria.

# Kevin J. Kennedy

Abridged Curriculum Vitae

# Educational Background

Certified Elections and Registration Administrator (CERA), Auburn University, 2003 Recertified, 2006. Eligible for Recertification 2009

University of Wisconsin-Madison, Law School, J.D. December 1976

University of Wisconsin-Madison, College of Letters and Science, B.A., Honors Candidate in Mathematics and Communication Arts, May 1974

# Professional Qualifications

Admitted to State Bar of Wisconsin, December 27, 1976 Admitted to practice in the Eastern and Western Districts, Wisconsin Federal District Court Admitted to practice in the Seventh Circuit, United States Court of Appeals

# Work Experience

# Director and General Counsel, Wisconsin Government Accountability Board November, 2007 to Present

Provide agency leadership on behalf of the Board. Direct the establishment of a new state agency responsible for accountability in government. Administer and enforce state laws relating to elections, campaign finance, ethics and lobbying.

Responsible for all administrative duties including implementing Board policy, preparation of formal opinions, budget development, legislative activity including administrative rules, staff supervision and development. Carry out delegated decision making authority with respect to litigation and review of decisions of local election officials.

Serve as chief state election official. Responsible for overseeing the collection and analysis of election, campaign and lobbying data and preparation of special reports. Developed comprehensive training programs for state and local election officials.

Responsible for identification of problems which may require investigation or interpretation. Taught numerous CLE courses related to election, campaign, lobbying and ethics laws.

Responsible for securing passage of critical legislative initiatives to improve the administration and enforcement of election laws. Provided advice and direction to legislators on the development of legislation relating to the administration and enforcement of election, campaign and lobby laws.

# Executive Director, Wisconsin State Elections Board, August 1983 to November 2007

Provide agency leadership on behalf of the Board. Responsible for all administrative duties including implementing Board policy, preparation of formal opinions, budget development, legislative activity including administrative rules, staff supervision and development. Carry out delegated decision making authority with respect to litigation and review of decisions of local election officials.

Responsible for identification of problems which may require investigation or interpretation. Directed the investigation of several complex campaign finance enforcement matters including 1997 Supreme Court contest. Served as an expert witness in several criminal campaign finance prosecutions including cases arising from the "caucus scandal". Taught numerous CLE courses related to campaign and election laws.

Serve as chief state election official since August 1983. Responsible for directing the implementation of federal mandates under Help America Vote Act of 2002 (HAVA). Initiated efforts that ensured full accessibility of state polling places including the use of HAVA compliant voting systems. Developed comprehensive voting system testing and security procedures to assure the transparency and integrity of the election process.

Responsible for overseeing the collection and analysis of campaign and election data and preparation of special reports. Developed comprehensive training programs for local election officials, including certification programs for chief election inspectors, municipal clerks and writing script for video on campaign finance compliance.

Responsible for securing passage of critical legislative initiatives to improve the administration and enforcement of campaign and election laws. Provided advice and direction to legislators on the development of legislation relating to the administration and enforcement of campaign and election laws. Served on Legislative Council Study Committees in 1997-1998 and 2004-2005 that led to passage of significant legislative changes in the area of election administration. Consulted with Legislative Council Study Committee and Gubernatorial Blue Ribbon Commission on campaign finance reform.

Worked with Congressional staff in the drafting of the National Voter Registration Act of 1993 (NVRA) and HAVA to minimize administrative burden on Wisconsin election officials while reducing barriers to voter participation.

# Acting Executive Secretary, Wisconsin State Elections Board, December 1982 to July 1983

Assumed agency administrative responsibilities while maintaining Legal Counsel position as a result of Board disciplinary action leading to suspension and eventual resignation of Executive Secretary effective April 30, 1983.

# Legal Counsel, Wisconsin State Elections Board, April 1979 to July 1983

Provide legal advice to Board and staff. Represent agency in enforcement actions in circuit court. Served as appointed special counsel in three cases argued in State Supreme Court and Court of Appeals. Responsible for monitoring legislative activity and sheparding key legislative initiatives through Legislature, drafting formal opinions, administrative rules and memoranda for consideration by Board members. Provide all campaign finance training for candidates and political committees. Assist Executive Secretary with training local election officials.

# Associate, Cyrak Law Offices S.C., Madison and Waterloo, Wisconsin, June 1977 to March 1979

Appeared in Dane, Dodge, Jefferson and Rock County circuit courts. Handled criminal and traffic defense cases including trials. Responsible for preparing incorporation documents for a number of small commercial and real estate businesses. Prepared legal documents for several real estate development plats in Madison, Middleton and Sun Prairie. Resolved a number of outstanding probate matters.

### Assistant District Attorney, Washington County, Wisconsin, January to May 1977

Responsible for all juvenile matters. Split traffic, misdemeanor and some felony cases with DA. Prepared criminal complaints, motions, and briefs including an appellate brief on behalf of Department of Justice. Daily court appearances including traffic and misdemeanor trials to the court and jury. Worked with local law enforcement, schools and corporation counsel on juvenile and criminal issues.

#### **Professional Organizations**

### Member, National Association of State Election Directors (NASED), 1990 to present

NASED is the membership organization of the election directors in the 50 states, the District of Columbia and the 4 U.S. Territories.

Immediate Past President. Member of Executive Committee 1998, 2000 - present.

#### Wisconsin State Representative - Standards Board, United States Election Assistance Commission

The Standards Board is an advisory body to the U.S. EAC established by HAVA consisting of one state and one local representative from each of the 50 states, the District of Columbia and the 4 U.S. Territories.

Selected as initial Chair of the Bylaws Committee, 2004. Continue to serve on Bylaws Committee.

#### Election Center, 1988 to present

The Election Center is a nonprofit organization dedicated to training and educational opportunities for state and local election officials.

Co-Chair of the National Task Force on Election Reform responsible for the preparation of two comprehensive reports on election reform in 2001 and 2005. Member, Professional Education Program Committee. Completed professional certification program (2003) and recertification program (2006) - Certified Elections and Registration Administrator (CERA).

#### Federal Election Commission (FEC)

Member of the National Advisory Panel of State and Local Election Officials. Served on an advisory panel for the FEC Ballot Access publications. Organized FEC/Wisconsin Campaign Finance Seminar, October, 1987.

# Member, Council on Governmental Ethics Laws (COGEL), 1986 to present

COGEL is the preeminent international organization of government ethics administrators.

Served on Steering Committee 1991 to 1994. Served on Awards, Bylaws, Global Affairs, Nominations and Program Committees. Worked on the initial COGEL Model Law Project and drafted the public financing provisions of the model campaign finance law. Organized, moderated and presented a number of panels for annual conferences in 1988 - 1990, 1992 - 1997, 1999 - 2000, 2002, 2004 - 2007.

### State Bar of Wisconsin, 1976 to present

Served on Legal Assistance Committee, Special Legislative Advocacy Committee and consultant to Committee to Assure Judicial Independence. Presented at several State Bar organized CLE programs including annual convention.

### Dane County Bar Association, 1977 to present

Served on Executive Committee and Committee on Delivery of Legal Services including two terms as Delivery of Legal Services Committee Chair.

# **Contact Information**

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# NATHANIEL E. ROBINSON

Wisconsin Government Accountability Board Administrator, Elections Division

(Abridged Vitae Prepared for the U. S. Elections Assistance Commission's Data Collection Grant Application Program)

### **CONTACT INFORMATION**

Wisconsin Government Accountability Board Administrator, Elections Division 17 West Main Street, Suite 310 Madison, WI 53701-2773 Nat.Robinson@wi.gov 608 267 0715 (LAN) 608 267 0500 (FAX)

#### PROGRAM/PROJECT MANAGEMENT AND GRANTS ADMINISRATION EXPERIENCE

Appointed to the state's most senior executive-level positions by six different Wisconsin Governors. Served as agency secretary, deputy agency secretary, divisional administrator and executive assistant.

Governor's Office of Justice Assistance
 Director of Research and Program Evaluation
 Executive Assistant to the Secretary
 Chief Administrative and Operations Officer
 Deputy Secretary
 Secretary

Designated by the Governor for the administration of public safety funds received from the U. S. Department of Justice, the Office of Justice Assistance (OJA) provides direct assistance to local governmental units, state agencies and private, non-profit organizations, to improve the juvenile and criminal justice systems and crime prevention efforts in Wisconsin. OJA is responsible for advising the Governor and the Legislature on all major public safety, crime and violence prevention strategies and initiatives.

Summary of Key Duties Performed while Serving in the above-referenced Positions:

- Managed multi-million dollar formula and block grant Federal grant funds received from the U. S. Department of Justice.
- Managed and administered agency's internal and external multi-million (\$30 million) dollar contract evaluation programs.
- Managed the development of Requests for Proposals (RFPs) and selection criteria for assessing responses and contract language.
- Managed grant application reviews/assessment processes and evaluation methodology.
- Conducted research, process and impact program and project evaluations and studies.
- Determine course and direction of the agency. Hired, counselled and supervised staff.
- Determined biennial budget decisions and formulated and monitored budgets.
- Set, implemented and monitored agency policies and procedures.

- Ensured effective staffing of Governor's Criminal and Juvenile Justice Policy Boards.
- Reported to the Governor and Legislature on initiatives for making Wisconsin a safer state to live, work, play, do business and go to school; thereby, improving residents' quality of life.

# 2. Governor's Legislative, Policy and Budget Development Agency

# Wisconsin Department of Administration

Division Administrator

Special Assistant to the Secretary

Similar to the role of the Office of Management and Budget, the Wisconsin Department of Administration (DOA) provides Wisconsin's Governor with fiscal management and policy alternatives required for the preparation of the state's biennial budgets. The Department also coordinates statewide operations for data processing, housing, telecommunication, energy and coastal management. DOA is responsible for a wide range of support services to other state agencies. It operates and maintains the state's buildings, including the Capitol. The Department maintains a federal-state relations office in Washington, DC to promote federal-state cooperation.

#### Division Administrator and Special Assistant's Core Duties

- Responsible for the management and development, direction, implementation, and evaluation of all divisional programs (Energy policy development; census data and population estimates and state demographics on which payments to municipal services are made; municipal annexations; coastal zone grants, and intergovernmental relations, Land Information Services, and Federal-State initiatives).
- Advised Governor, Department Secretary and Legislature on assigned policies and program issues.
- Provided consultation and liaison relating to broad governmental issues and programming that affected the State of Wisconsin and its residents.
- Served as Secretary's representative to the Legislature.
- Led the design of a new tuition grant program that awarded grants to the Wisconsin Technical College System.
- Represented the Secretary in negotiations with the Department of Revenue.
- Developed and gained Legislative approval of nine annual Governor's multi-million dollar spending plans (cumulatively, over \$50 million dollars, over 9 nears) for special funds to improved statewide energy efficiency initiatives. Special Federal funds received from the U.S. Department of Energy.
- Improved the State's Commercial Uniform Dwelling Energy Codes by launching a statewide energy rating system for homes, schools and local public buildings, and reported to the Legislature.
- Created, developed and implemented a unique public/private multi-million dollar energysaving partnership with one of the State's largest energy utilities, the *Wisconsin Focus on Energy* Promotional/Marketing Campaign. This collaboration parlayed into a major legislative/policy decision, a \$100 million Public Energy Efficiency Benefits Program.
- Prepared the State for maximizing the 2000 Census-taking process by gaining Legislative approval of \$1 million dollars for improving local and State census-taking capacity.
- Administered formula grant funds (multi-million dollars) received from the U.S. Department of Energy.
- Managed the process for developing and implementing a strategic plan of action for securing more Federal dollars; converted internal processing systems to electronic formats and platforms; thereby, improving efficiency and effectiveness.

#### 3. Wisconsin Technical College System Board

Executive Assistant to the President Senior Advisor to the President

The Wisconsin Technical College System (WTCS) Board (like a Board of Regents for a University System, the first of its kind in the nation), is the coordinating agency for the state's sixteen technical colleges that comprise the Wisconsin Technical College System. The board, appointed by the Governor and confirmed by the Legislature, establishes statewide policies and standards for district operations.

Executive Assistant and Senior Advisor's Core Duties

- Served as Executive Assistant and Senior Advisor to the WTCS President.
- Provided executive-level policy advice, assistance and counsel to the President on complex, sensitive and priority managerial, administrative, program, and policy and legislative areas, and strategic planning.
- Provided effective policy advice, assistance on global economic opportunities for the WTCS.
- Exercised and provided leadership on behalf of the President to ensure the development, coordination and implementation of systemwide economic and international policies, programs, partnerships and related initiatives.
- Made recommendations for System budgetary policy initiatives.
- Represented the System's position and programs on global economic initiates to the legislature, state agencies, national and international organizations and government agencies.
- Managed and administered WTCS' International strategic partnership and global economic development portfolio.
- Represented WTCS' interests on international economic opportunities to district colleges, state agencies, commissions, councils, boards, committees and in international contractual partnerships.
- Served as special liaison to private industry, industry organizations, councils, labour unions, Tribal governments and universities, colleges, agencies and educational organizations.
- Represented WTCS' Budget, Legislative and Policy Positions to the Wisconsin Department of Administration (DOA), Governor's Office, Wisconsin Legislature, and the general public.
- Represented President to American Association of Community Colleges.
- President's liaison to DOA regarding the WTCS' multi-million dollar (\$20 million dollars) Capacity Building Grant Program.

#### 4. Wisconsin Government Accountability Board

Division Administrator, Elections Administration

Wisconsin has a long history of ensuring uniform best election administration practices among its decentralized 1923 county and municipal elerks who conduct elections at the municipal level. The State's Elections Board was created in July 1974. However, in January 2007, the Wisconsin Legislature and Governor combined the former State's Elections Board and the State's Ethics Board into a new agency and named it the Wisconsin Government Accountability Board (Board).

On August 23, 2007, a six-judge panel was installed as the new Board. On January 10, 2008, all operations of the two former boards were effectively merged. As required by statue, the new Board's operations are organized into two divisions – the Elections Division, and the Ethics and Accountability Division. The Elections Division assumed all the statutory mission, functions and duties of the former State Elections Board. The Elections Division is responsible for the administration of elections laws (Chapter 5-10, 12, Wis.Stats.). Both Division Administrators are

appointed by the board's Director and General Counsel and confirmed by the six-member panel of judges that comprise the Government Accountability Board.

Elections Division Administrator's Core Duties

- Principal advisor to the board's Director and General Counsel and the six-judge board on all matters pertaining to elections administration in Wisconsin.
- Exercise managerial and administrative oversight of all functions of the Elections Division including elections administration, SVRS, training and technical assistance, supervision of staff; policy development; legislative initiatives, analyses, and contacts; media and public relations; budgeting/accounting/audit functions; program development, monitoring and evaluation, etc.
- Manage and responsible for administering the Help America Vote Act (HAVA) and its various sections (Sections 101, 102, 251, 261) totalling \$51 million dollars.
- Manage Wisconsin's state matching share of the HAVA grant monies (\$2.2 million).
- Negotiate contracts with vendors and subcontractors for assistance in addressing and implementing components of the HAVA Act.
- Represent the Division and Board's policies to customers/constituents/stakeholders (clerks, local officials, city councils, county boards, clerks professional organization, League of Women Voters, and other such interested groups), Governor's Office, other State agencies, Wisconsin Legislature, the media (editorial boards), special interests groups, and general public.
- Ensure information and training and technical assistance resources are provided to our customers/constituents/stakeholders in an effective and efficient manner.

# HONORS/AWARDS/SPECIAL RECOGNITION

- Numerous Gubernatorial and executive-level appointments and Commendations
- Appointments from two U. S. Presidents on Federal Advisory Committees (FACAs)
- Special honors/commendation from statewide, regional, national and international agencies

#### BOARDS/COUNCILS/COMMITTEES/COMMISSIONS' EXPERIENCE

- U. S. Department of Commerce, National Sea Grant Program Review Panel (Presidential)
- U. S. Department of Energy, Secretary's Executive Energy Advisory Board (Presidential)
- U. S. Department of Justice, National Crime Prevention Council Board of Directors (US Attorney General)
- Former Great Lakes Commission, Immediate Past Chairman of the Board (Gubernatorial)
- University of Wisconsin Sea Grant Advisory Council (University of Wisconsin Chancellor)
- University of Wisconsin's Institute for Environmental Studies' Board of Visitors, Foundering Member (University of Wisconsin Chancellor)

#### EDUCATION/TRAINING/CONTINUING PROFSSIONAL DEVELOPMENT

Undergraduate studies in psychology Graduate studies in clinical psychology Completed numerous continuous professional development and training opportunities

University of Michigan University of Wisconsin-Madison (Finished all Ph.D. requirements except dissertation)

### U. S. ARMED SERVICE EXPERIENCE

Served in the U. S. Military Former US Marine Honorably Discharged **DAVID GRASSL** 

### (b)(6)

# **SOLUTION ARCHITECT**

#### Application Architecture / Strategic & Tactical Planning / Development & Deployment Performance Metrics / Project Management / PACS / RIS / Process Improvement / Team Building

Results-driven technology leader with history of providing revenue-driven solutions across Fortune-level and smaller organizations. Business partner and strategist with demonstrated proficiency in project management, technical architecture and team leadership. Demonstrated record of ensuring applications and infrastructure minimized costs and add value across the organization. Respected builder of highly successful technology teams within a culture that engenders motivated and productive professionals.

- Transformed technology department to reduce application delivery time by 30% at WI Department of Administration.
- Modernized and consolidated technology environment to reduce overall IT budget by 25% at Roehl.
- Standardized proposal process, leading to five large contracts including a Fortune 500 win at Skyline.

**Technical Capabilities**: MS Dynamics xRM, .Net, VBA Development, Business Process Analysis/Design, iSeries, Windows OS, Sharepoint/TFS Administration, Operations Research Development, SQL Server, DB2, Oracle DBA; GIS Development, Project Management, Exchange/Video Conferencing, Agile Software Methodology.

**Key Skills**: Public Sector, E-business solutions. CRM. Manpower development. MSF / MOF / ITIL. Change leadership. Grasp technical matters quickly. Shirt-sleeve work ethic. Analyze situations rapidly. Ability to get things done quickly. Bring order out of chaos. In-depth technical knowledge.

MBA, University of Wisconsin (Oshkosh). BBA, Systems Analysis & Design, University of Wisconsin (Madison).

Selected Accomplishments

**Transformed technology department to reduce application delivery time by 30% at WI DOA.** By using .Net Design Patterns, MS Dynamics xRM, SQL Server BI Tools, and SharePoint technology the team was able to focus on gathering core business requirements and translated those requirements into solutions for the department. This was done in an agile environment which allowed the team to react quickly to changes in requirements and deliver confidence to the users we served. The result of this was a significant reduction in time to develop and delivered quality solutions.

Modernized and consolidated technology environment to reduce overall IT budget by 25% at Roehl. Recruited to reengineer technology department to be a strategic advantage for organization. Hired top talent to build Application Development, Data Management and Network Services team. Implemented methods for project management, software development, help desk and network management. Reduced budget and improved productivity. Strengthened vendor relationships to leverage product features and positioned company as premier technology-driven business. Significantly cut vendor support costs.

Standardized proposal process, leading to five large contracts including a Fortune 500 win at Skyline. To better compete, company required proposal process on how technology can improve business results. Developed a project charter/proposal template that standardized bid process across entire organization.

Career History

**Solution Architect,** EAI Business Solutions, LLC, 2011 to present. Solution Architect in charge of delivering a PACS and Dictation solution for Radiology practice. Managing all technology needs of the organization, which includes developing RFPs for data center support, vendor relationship management, and customer workflow integration design/implementation. Also developed dictation add-on tools to improve the turnaround time of studies for the practice. This was done by standard report structure and drop down menu selection.

**Section Chief,** WI DOA, 2008 to 2011, Lead Business Applications section staff of twenty. Section projects consisted of migrating old systems to new technology. Did this using MS Dynamics xRM, .Net Design Patterns, and GIS features in SQL Server 2008 R2. My role involved developing statements of work for other state agencies to outline resources, milestones, training, and delivery of new state election systems, state budget system, and stimulus recovery act reporting system.

**Director of Technology**, Roehl Transport Inc., 2001 to 2008. Manage staff of twenty-five and \$5.5M budget for this \$300M transportation services company. Lead all technology projects, resources, and budgets. Provide strategic planning, enterprise software development, project office development, and process improvement.

#### State of Wisconsin Government Accountability Board Budget Information -- Summary

Object Class Categories	Do	llar Amount
Direct Labor	\$	410,629
Adminstrative and Clerical Labor	\$	102,470
Fringe Benefits & Indirect Costs	\$	221,719
Travel	\$	41,356
Subcontracts/sub awards		none
Consultants	\$	1,007,640
Materials and Supplies	\$	136,050
Other Direct Costs		none
Total	\$	1,919,864

#### State of Wisconsin Government Accountability Board 2011 FVAP Grant Application Key Staff

#### DIRECT LABOR (1.a) and Fringe Benefits (1.c)

1**.a** 

1.c 48 15% =EY2011 Eringe factor

								40.1070	+ +	
					Prorated Salary					
				# of Hours	fo	r each position	Fr	inge Benefits		
Existing Key Core Staff	Number of Positions	Hou	irly Salary	both years *		(2 Years)		for 2 years		Total
Division Administrator	1	\$	48.37	40	\$	1,935	\$	932	\$	2,867
Elections Supervisor	1	\$	27.24	120	\$	3,269	\$	1,574	\$	4,843
Elections Specialists	7	\$	23.00	120	\$	19,320	\$	9,303	\$	28,623
Trainers	3	\$	23.00	240	\$	16,560	\$	7,974	\$	24,534
Staff Attorney	1	\$	39.08	40	\$	1,563	\$	753	\$	2,316
Testing Lead	1	\$	22.53	120	\$	2,704	\$	1,302	\$	4,006
Functional Lead	1	\$	29.54	120	\$	3,545	\$	1,707	\$	5,252
					\$	48,896	\$	23,545	\$	72,441

				# of Hours			Fri	nge Benefits	
New Key Personnel (Full-Time)	Position Title/Role	Hou	rly Salary	both years *	Salai	y for 2 years	f	or 2 years	Total
Vacant/Recruiting	Project Manager	\$	23.00	4,160	\$	95,680	\$	46,070	\$ 141,750
Vacant/Recruiting	Training Coordinator	\$	23.00	4,160	\$	95,680	\$	46,070	\$ 141,750
Vacant/Recruiting	Administrative Assistant	\$	13.97	4,160	\$	58,115	\$	27,982	\$ 86,097
Vacant/Recruiting	Financial Specialist	\$	20.00	4,160	\$	83,200	\$	40,061	\$ <b>123,26</b> 1
Vacant/Recruiting	Help Desk - one year only	\$	13.97	2,080	\$	29,058	\$	13,991	\$ 43,049
					\$	361,733	\$	174,174	\$ 535,907

\* based on working full-time for 2080 hours (52 weeks \* 40 hours per week). No additional hours have been added for overtime costs, since it's comp time instead of cash OT.

TOTAL DIRECT LABOR SALARIES OVER 2 YEARS \$ 410,629 1.a

TOTAL DIRECT LABOR FRINGE OVER 2 YEARS \$ 197,719 1.c

TOTAL DIRECT LABOR SALARIES AND FRINGE OVER 2 YEARS \$ 608,348

1.5. ADMINISTRATIVE AND CLERIC	AL LABOR - Indirect Costs							<u> </u>
Method A - Ratio of financial team to whole agency staff	Current # of G.A.8. Staff Supported by Admin and Clerical Staff	New Staff for Grant	Percentage increase # of Staff to serve	Existing Admin Budget per Year for five staff *	Total Increase per Year	# of Years	Total	
	38	8	21.1%	\$ 330,000	\$ 69,474	2	\$ 138,947	1
Method B - Estimated percentage of financial unit's time allocable to new read unit's time allocable to new			Indirect allocation percentege	Existing Admin Budget per Year for five staff *	Total Increase per Year	# of Years	Total	ſ
grant work			10.0%	\$ 330,000	\$ 33,000	2	\$ 66,000	
-					_average	of both methods=	\$ 102,470	<u>1.5</u>
-			* Existing administrative costs fo	r entire financial unit inclu	de the following:			-
	1		Wages	\$ 217,360		1		1
	1	[	Benefits at current 48.15%	\$104,659	_			1
			Estimated supplies	<u>\$ 7,981</u>	7			
	1		Actual costs for five staff	\$ 330,000				1

			1c.
Web-Site Hosting and Support	Cost Per Mo	# of Months	Total
Development Environment (Non-Production)	\$ 800	12	\$ 9,600
Hosting of Servers - (Production)	\$ 1,200	12	\$ 1 <b>4,400</b>
			\$ 24,000

# 1.c - INDIRECT COSTS for WISCONSIN DEPARTMENT OF ADMINISTRATION

#### State of Wisconsin Government Accountability Board Travel Expenses

TRAVEL 1.d									1.d
Purpose of the Trip - G.A.B. Staff Travel	Destination	Duration	# of G.A.B. Staff	# of Trips	Hotel Expenses	Vehicle Rental	Meals	T	Total
Feedback Session with Clerks - Information Gathering	Unknown	1 day	2	1	\$-	\$ 45	\$ 26	\$	97
Feedback Session with Clerks - Testing	Unknown	1 day	2	1	\$-	\$ 45	\$ 26	\$	97
Feedback Sessions with Military Affairs - Testing	Unknown	1 day	2	2	\$-	\$ 45	]\$ 26	\$	194
Feedback Session with Clerks - Post 2012 Election	Unknown	1 day	2		\$-	\$ 45	\$ 26	\$	97
Feedback Sessions with Military Affairs - Post 2012 Election	Unknown	1 day	2	2	\$-	\$ 45	\$ 26	\$	194
Training Sessions with Municipal Clerks	Unknown	1 day	2	10	\$ 70	<b>\$</b> 45	\$ 43	\$	2,710
Training Sessions with County Clerks	Unknown	1 day	2	2	\$ 70	\$ 45	<b>[\$</b> 43	1\$	542
								\$	3,931

Travel for Municipal and County Clerks	Destination	Duration	# of Participants	# of Meetings	Hotel Expenses	Mileage Expenses	Meals	Total
Feedback Session with Clerks - Information Gathering	Madison, WI and Unknown	1 day	25	2	\$ 70	\$ 146	\$ 34	\$ 12,47
Feedback Session with Clerks - Testing	Madison, Wi and Unknown	1 day	25	2	\$ 70	<b>\$</b> 146	\$ 34	\$ 12,47
Feedback Session with Clerks - Post 2012 Election	Madison, Wi and Unknown	1 day	25	2	\$ 70	<b>\$</b> 146	\$ 34	\$ 12,47
								\$ 37,42

Travel Total \$ 41,356

#### State of Wisconsin Government Accountability Board CONSULTANTS

#### 1.f - CONSULTANTS

#### CURRENT CONSULTANTS - TECHNICAL EMPLOYEES PROVIDED BY IT SERVICES SUPPLIERS

1.f

Consultant name	Vendor service supplier	Position Role	Hour	ly Rate	# of Hours each year	Total c	harges for 2 years
David Grassi	Comsys	IT Team Lead	\$	85.00	156	\$	26,520
Kamal Pasikanti	Comsys	SVRS/IT	\$	74.00	40	\$	5,920
Raj Kirubanandham	Comsys	SVRS/IT	\$	74.00	40	\$	5,920
						\$	38,360

#### IN RECRUITMENT

Consultant name	Vendor service supplier	Position Role	Hourly Rate		Hourly Rate		# of Hours each year	Total charges for 2 years
To be engaged	To be determined	Technical Team Lead	\$	85.00	2,080	\$ 353,600		
To be engaged	To be determined	Solution Architect	\$	74.00	2,080	\$ 307,840		
To be engaged	To be determined	Database Architect	\$	74.00	2,080	\$ 307,840		
						\$ 969,280		

\$ 1,007,640

#### State of Wisconsin Government Accountability Board Materials and Supplies

IVIE						
				1.g		
Quantity		Unit Cost		Total Cost		
3	\$	4,000	\$	12,000		
5	\$	2,000	\$	10,000		
1	\$	2,500	\$	2,500		
1	\$	1,000	\$	1,000		
1		18	\$	18		
		391	\$	391		
5		1,000	\$	5,000		
3	\$	7	\$	21		
7/0	1	0/0				
11/a		IVa .	\$	3,000		
2500	\$	0.75	\$	1 <b>,875</b>		
n/a	1	n/a	\$	10,000		
n/a		n/a				
11/a		11/a	\$	50,700		
8	\$	35	\$	281		
8		21		4,070		
8		11	\$	2,074		
7		184	\$	30,912		
1	\$	184	\$	2,208		
es						
TERIALS A	ND	SUPPLIES	\$	136,050		
	3 5 1 1 1 1 5 3 3 n/a 2500 n/a n/a n/a 8 8 8 8 8 7 1 1 es	3 \$ 5 \$ 1 \$ 1 \$ 1 \$ 5 \$ 3 \$ n/a \$ 2500 \$ n/a \$ n/a \$ 8 \$ 8 \$ 8 \$ 7 \$ 1 \$	Quantity       Unit Cost         3       \$ 4,000         5       \$ 2,000         1       \$ 2,500         1       \$ 1,000         1       \$ 1,000         1       \$ 1,000         1       \$ 1,000         3       \$ 7         n/a       n/a         2500       \$ 0.75         n/a       n/a         n/a       n/a         n/a       n/a         n/a       n/a         1       \$ 184         1       \$ 184	3       \$       4,000       \$         5       \$       2,000       \$         1       \$       2,500       \$         1       \$       1,000       \$         1       \$       1,000       \$         1       \$       1,8       \$         1       \$       18       \$         1       \$       18       \$         5       \$       1,000       \$         5       \$       1,000       \$         5       \$       1,000       \$         5       \$       1,000       \$         7       \$       1,000       \$         0       \$       0.75       \$         n/a       n/a       \$       \$         1       \$       0.75       \$         n/a       n/a       \$       \$         1       \$       35       \$         8       \$       35       \$         8       \$       11       \$         7       \$       184       \$         8       1       \$       184         8       5       5<		

# Budget Proposal

This budget narrative provides appropriate justification for each cost category proposed below. This document, combined with the attached budget, provides detailed analysis of the costs necessary to accomplish the goals and objectives proposed in this grant application.

# a) Direct Labor

(\$410,629)

The System proposed in this grant application will require the use of existing staff and new fulltime project staff. Existing staff will provide expertise as needed. This System proposes integrating current election business processes and new technologies.

# 1. Existing Staff

The G.A.B. has budgeted for the use of existing staff for a number of hours over the two-year duration of the grant. The Division Administrator, Elections Supervisor, seven (7) election specialists, three (3) trainers, a staff attorney, the testing lead and the functional lead are budgeted for between 40 and 240 hours per position over two years to assist with administering and implementing the grant. Although several G.A.B. staff members will contribute to the grant, this will only amount to 800 hours total, or about 28% of one full time position. The hourly salaries are based on the current wages of those holding the positions.

**Justification:** The G.A.B. intends to utilize the knowledge and expertise of its current staff to assist new project staff.

<u>Elections Division Administrator</u>: The G.A.B. Elections Division Administrator, Nathaniel E. Robinson, will be the project director of the grant and its staff members. As the Elections Division Administrator, Mr. Robinson manages all projects and staff within the Elections Division. Mr. Robinson is budgeted for 40 hours at over two years in his role as project director. Any key policy, procedural, strategic, and financial decisions related to the grant project will be approved by him.

<u>Elections Supervisor</u>: The G.A.B.'s Election Supervisor, Ross Hein, supervises the Testing Lead and Functional Lead of the Statewide Voter Registration System (SVRS). Mr. Hein also has expertise in voting equipment and usage in the varying municipalities and counties. Mr. Hein is budgeted for 120 hours over two years. He will manage tasks when the Testing Lead and Functional Lead are involved in the development of the grant proposal. His expertise in voting equipment and familiarity with the voting equipment vendors will be essential during the creation of the Ballot Preparation Tool.

<u>Election Specialists</u>: The G.A.B. staff consists of seven election specialists. Two election specialists assist with the management of the SVRS, one specializes in military and overseas voting, and four specialize in election administration. All areas of expertise overlap in a shared knowledge of major policies and procedures. Each election specialist is budgeted for 120 hours over the two year duration of the grant. All election specialists have a sustained relationship with the G.A.B.'s customers and partners, the county and municipal clerks. Election specialists

will help in establishing a business process based on their knowledge of clerk procedures. Since the proposed project will integrate with all current election tools and absentee voting processes, the knowledge, assistance and feedback from the election specialists will be an asset to the development of the project.

During the implementation of the project, election specialists will be assisting in trainings, communication, and follow up with clerk users and UOCAVA electors. The evaluation phase of the project will require the support of election specialists as feedback is gathered and the System's components are refined. As the grant period ends, the specialists will ensure a smooth transition as they continue to support and train clerks and UOCAVA electors in the use of the new tools.

<u>Trainers</u>: The G.A.B. currently employs three SVRS trainers. They develop training materials, provide in-person instruction, produce and update online lessons, and participate in the testing and improvement of the SVRS. Each of the trainers is budgeted for 240 hours over two years to assist in the proposed project. The G.A.B. is budgeting for a full-time training coordinator but this position will need the assistance of the current training staff. The trainers will be available to review and edit online videos and provide testing and feedback options. They will also incorporate the new features of the System into existing SVRS training protocols, and will assist with in-person instructional sessions.

<u>Staff Attorney</u>: The G.A.B. may need to request legislative action or draft administrative rules in order to implement parts of this proposal. One staff attorney is budgeted for 40 hours to ensure the proposal meets all statutory requirements.

<u>Testing Lead</u>: The G.A.B. Testing Lead facilitates any testing necessary for election administration online applications including the SVRS, VPA, the Wisconsin Election Data Collection System (WEDCS), the Canvas Reporting System, and the Access Elections! Wisconsin Disability Compliance System. This proposal is an integration of several existing systems with additional applications. The Testing Lead is budgeted for 120 hours over the two year duration of the grant. This position will manage the testing environment before the System is put in production as well assist the training coordinator in developing and implementing the testing plan. During the evaluation phase the Testing Lead will again be utilized as upgrades and improvements are made and need to be tested.

<u>SVRS Functional Lead</u>: The SVRS Functional Lead is responsible for overall operations and functionality of the Statewide Voter Registration System. This person coordinates all updates to the SVRS and ensures they meet agency business requirements. The proposed system will interface directly with the SVRS and several SVRS subsystems, including the Click-and-Mail Voter Registration portal and the Voter Public Access website. The Functional Lead is budgeted for 120 hours over the two year duration of the grant. The Functional Lead will ensure that all new systems created by the project function seamlessly with the SVRS.

# 2. New Full-Time Project Staff and Roles:

The G.A.B. will need four additional full-time staff members dedicated to the grant project for the two-year period and one additional full-time staff member for one year to develop, implement and evaluate the grant project properly. The five positions include a project manager, training coordinator, administrative assistant, financial specialist, and a Help Desk staff member.

**Justification:** These five new positions are needed to ensure that the objectives, strategies, and goals of creating an integrated absentee balloting tool for UOVACA electors are met.

<u>Project Manager</u>: In close consultation with the Elections Division Administrator, the Project Manager will administer the daily operations of the grant project. This position will be full-time and will coordinate activities with existing supervisors and lead workers to ensure that all phases of the project start and are completed on schedule and are integrated properly. A full-time project manager with exceptional leadership and demonstrated organizational skills is needed to devote sufficient time and effort to these activities to ensure the project's success.

<u>Training Coordinator</u>: Training, technical assistance and providing informational services will a very important part of the project. The training coordinator will organize large and small group trainings and one-on-one technical assistance to be delivered in-person, via the internet or by telephone. The training coordinator will collaborate with existing staff of the Elections Division in the creation and integration of new and existing training materials. He or she will also organize voting equipment data and work with vendors and clerks in the creation of the Ballot Preparation Tool and will help codify business requirements during the development of the project. The training coordinator must also have excellent organizational leadership and demonstrated "people" skills.

<u>Administrative Assistant</u>: A full-time administrative assistant position is needed to support the grant project. This position will provide routine and traditional administrative services to the project manager and training coordinator. The person will answer phones, draft correspondence, schedule meetings, make room reservations, process mail and keep the team informed of approaching deadlines.

<u>Financial Specialist</u>: The financial specialist will develop, monitor and maintain all accounting and financial records for the grant program. It is anticipated that a significant amount of financial tracking and maintenance will be needed as result of this project. The financial specialist is budgeted as a two-year project position.

The G.A.B.'s methodology calls for support and substantial training and technical assistance efforts in order to encourage the fullest possible participation by all 1,922 county and municipal clerks, their related staffs, and UOCAVA electors using any of the absentee balloting tools provided on the Voter Public Access website. We are proposing two in-person training sessions with our 72 county clerks and ten in-person training sessions with municipal clerks and staffs. We are proposing to reimburse all clerks and their deputies for travel to feedback sessions and informational meetings. The financial specialist will answer questions regarding reimbursement procedures, provide information on allowable expenses, provide assistance on how to complete

the state's required forms, review reimbursement requests and process the requests. The processing of requests is expected to be substantial to the extent that existing staff will be not be able to handle the increased volume while completing core assigned duties.

The Wisconsin Legislature requires all Federal programs, projects and associated funds to be audited by the Wisconsin Legislative Audit Bureau, and the financial specialist will prepare documentation for this process. This person also will be required to prepare documents for any potential audits of the program funds by the Federal Government. The financial specialist will be responsible for producing the financial reports listed in the Schedule and Milestones section and managing the disbursement of funds. A person who has demonstrated skills in accounting principles and procedures, and who may already be familiar with Wisconsin state government financial systems will be given preference.

<u>Help Desk Staff</u>: A full-time Help Desk staff position will answer phones, direct calls, track caller information, provide technical assistance, and organize survey results. The Help Desk staff position is budgeted as a one-year project position. During the implementation and evaluation phases of the grant process the G.A.B. will be providing a number of communications to clerks and the public as well as assisting users -- both clerks and UOCAVA electors -- through the procedures of the System. The Help Desk Staff will respond to the increased volume of calls and provide other communication assistance.

# b) Administrative and Clerical Labor

(\$102,470)

Indirect costs of \$102,470 are being allocated to this grant based on five existing staff members who will provide office support services during this two-year grant period. These services include purchase ordering, pre-auditing of invoices and travel vouchers, administrative and support tasks, processing invoices and travel vouchers for payment, and payroll and human resources questions. Only a fraction of this office operations support team's actual costs will be applied to this grant, and two methods were employed to estimate these indirect cost allocations. Method A is based on a ratio of the office operations support team staff members (5) to the entire agency staff (38), applied to the unit's existing actual costs over this two-year grant. The existing actual costs include wages, benefits, and supplies. Method B applies an estimated percentage (10%) of the office operations support unit's time dedicated to this project to the unit's existing actual costs over this two-year grant. The average cost from these two methods was included in this proposed grant budget.

# c) Fringe Benefits and Indirect Costs

(\$221,719)

<u>Fringe Benefits</u>: Agency staff fringe benefits will amount to \$197,719 including social security, Medicare, health insurance, and other retirement benefits, as required by FLSA. The current fiscal year rate is 48.15% and is applied to the base salaries and wages for both existing key core staff and new key personnel. <u>Indirect Costs</u>: Indirect costs of \$24,000 include overhead charges for the development of environment servers for the first twelve months and for the hosting of production environment servers during the second twelve months. These standard costs are based on actual rates charged by the Wisconsin Department of Administration to all state agencies.

# d) <u>Travel</u>

(\$41,356)

Travel will be required by the newly-hired grant team and some existing staff members during the development, implementation and evaluation phases of the project. Staff will hold feedback session and training sessions throughout the process.

# General Staff

Travel costs for staff are based on rates determined by the Wisconsin Office of State Employment Relations. These costs include reimbursement of meals: \$8 for breakfast, \$9 for lunch and \$17 for dinner. The State of Wisconsin also pays a tax exempt hotel rate of \$70 per night in all counties except Milwaukee, Racine, and Waukesha, where the rate is \$80. Vehicles are rented through the Wisconsin Central Fleet Services at a van rate of \$45 per day.

 $\geq$  <u>Two Feedback Sessions with County and Municipal Clerks – Information Gathering</u>: Feedback and information-gathering sessions will be scheduled as part of the G.A.B.'s working relationship with its county and municipal clerk partners. The processes and procedures discussed in this application will be further vetted by local election officials before detailed development of the project can begin. The perspective of the local election officials provides the G.A.B.'s staff with additional insight needed to create a system that meets their needs as well as the needs of UOCAVA electors.

The first feedback/information-gathering sessions will be held in Madison and will not accrue any travel expenses for G.A.B. staff. The second session's location is yet to be determined but will require a day trip for staff. The training coordinator and an assistant will lead the session and are budgeted for a vehicle, lunch and dinner but are expected not to require lodging.

 $\geq$  <u>Two Feedback Sessions with Clerks – Testing</u>: When the G.A.B. has a version of the System in place, staff will conduct a testing and feedback session to gain support from local election officials as well as evaluate the development and functionality of the System.

The first feedback/testing session will be held in Madison and will not accrue any travel expenses for G.A.B. staff. The second session's location is yet to be determined but will require a day trip for staff. The training coordinator and an assistant will lead the session and are budgeted for a vehicle, lunch and dinner but are expected not to require lodging.

 $\geq$  <u>Feedback Session with Military Affairs – Testing</u>: When the G.A.B. has a version of the System in place, staff will also conduct a testing and feedback session to gain insight from the military community as to the ease of use and functionality of the System. The intent of this

session is to develop further understanding of the obstacles and burdens that UOCAVA electors face and incorporate possible improvements in to the System.

The feedback session's location is yet to be determined but will require a day trip for staff. The training coordinator and an assistant will lead the session and are budgeted for a vehicle, lunch and dinner but are expected not to require lodging.

Two Feedback Sessions with Clerks – Evaluation (Post 2012 General Election): After the roll out and use of the project, the G.A.B. will evaluate the System and its components. Staff will seek the opinions of UOCAVA and local election official users in a survey but will also conduct in-person sessions to promote dialogue and gather data from all System users.

The first feedback session with local election officials will be held in Madison and will not accrue any travel expenses for G.A.B. staff. The second session's location is yet to be determined but will require a day trip for staff. The training coordinator and an assistant will lead the session and are budgeted for a vehicle, lunch and dinner but are expected not to require lodging.

Feedback Session with the Wisconsin Department of Military Affairs – Evaluation (Post 2012 General Election): After the roll out and use of the project, the G.A.B. will evaluate the System and its components. Staff will seek the opinions of UOCAVA electors users in a survey but will also conduct an in-person session with representatives of Wisconsin's military community to promote dialogue and gather data from all System users.

The feedback session's location is yet to be determined but will require a day trip for staff. The training coordinator and an assistant will lead the session and are budgeted for a vehicle, lunch and dinner but are expected not to require lodging.

A series of ten In-Person Training Sessions with Municipal Clerks: The project will not only change the absentee voting process for UOCAVA electors but will also change the business processes, tracking methods, and ballot preparation procedures used by municipal clerks. G.A.B. staff will create online training but will also offer ten in-person trainings for municipal clerks. The G.A.B. hopes to conduct these trainings in conjunction with the Wisconsin Municipal Clerk's Association (WMCA) District meetings held quarterly. Some of these meetings are located over six hours from Madison and will require overnight stays.

Locations of these trainings are yet to be determined. The training coordinator and an assistant will conduct the trainings and are budgeted for a vehicle, lunch, dinner, breakfast and lunch (over a day and a half) and lodging expenses for 10 trips.

➤ <u>A series of two In-Person Training Sessions with County Clerks</u>: The project will also change the business processes, tracking methods, and ballot preparation procedures for county clerks. G.A.B. staff will create online training but will also offer two in-person instructional sessions for county clerks. We anticipate that these sessions will be held in conjunction with two of the Wisconsin County Clerks Association's (WCCA) regular meetings. The county clerks complete voting equipment programming, ballot printing, and training of municipal clerks.

Some county clerks also manage the SVRS, where UOCAVA elector's absentee ballots are tracked, on behalf of municipalities.

The locations of these trainings are yet to be determined. The training coordinator and an assistant will conduct the trainings and are budgeted for a vehicle, lunch, dinner, breakfast, and lunch (over a day and a half) and lodging expenses for two trips.

#### Travel for Clerks and their Staffs to Attend Feedback/Information Gathering Sessions

County and municipal clerks who attend feedback sessions will be reimbursed for their travel and lodging as they are assisting the G.A.B. in the creation of this new project. Reimbursements are based on the same rates used for G.A.B. staff. These travel costs include reimbursement of meals: \$8 for breakfast, \$9 for lunch, and \$17 for dinner. The State of Wisconsin also pays a tax exempt hotel rate of \$70 per night in all counties except Milwaukee, Racine, and Waukesha, where the nightly rate is \$80. Clerks are also reimbursed for mileage at a rate of \$0.45 per mile

<u>Two Feedback Sessions with Clerks – Information Gathering</u>: As stated above, one information-gathering session will be held in Madison and another in an undetermined location. Any clerks who travel to Madison or the other location will be reimbursed for mileage and meals. Any clerks who need lodging will also be reimbursed for that expense.

<u>Two Feedback Sessions with County and Municipal Clerks – Testing</u>: As stated above one testing feedback session will be held in Madison and another in an undetermined location. Any clerks who travel to Madison or the other location will be reimbursed for mileage as well as for any meals eaten while in traveling status and. Any clerks who need lodging will also be reimbursed.

<u>Two Feedback Sessions with Clerks – Evaluation (Post 2012 General Election)</u>: As stated above one feedback session will be held in Madison and another in an undetermined location. Any clerks who travel to Madison or the other location are reimbursed for mileage and meals. Any clerks who need lodging will also be reimbursed.

#### e) <u>Subcontracts/Sub Awards</u> (\$0)

The G.A.B. is proposing the use of consultants and no subcontractors are proposed in this budget.

# f) Consultants

(\$1,007,640)

The G.A.B. will be using its current IT project management model of collaboration with the Department of Administration, Division of Enterprise Technology to hire IT consultants through a consulting firm. A supporting document for this model is included immediately following the Budget Proposal.

**Justification:** The G.A.B.'s history of the use of vendors for product development prompted collaboration with DOA. Working with consultants instead of outside vendors eliminates disputes regarding intellectual property and proprietary rights. This allows projects developed using this model to be duplicated in other states or jurisdictions. The consultant project model has been used successfully in the development of the Wisconsin Election Data Collection System (WEDCS), which was developed with the award of a \$2 million grant from the U.S. Elections Assistance Commission. It was also used in the design of the Canvass Reporting System, the Access Elections! Wisconsin Disability Compliance System, for tracking polling place accessibility, and the Voter Public Access website. The G.A.B. intends to continue this model of success with the development of the project proposed in this grant.

The G.A.B. will use the knowledge and expertise of current consultants who work on the applications that will be integrated with the System. Three new consultants will be hired to complete the IT development of the project, but will need to consult with existing staff as the integration takes place. The three current IT consultants will be responsible for the maintenance and IT management of the grant project once the duration of the grant has ended.

# Existing Consultants:

<u>David Grassl</u>: As the 1T Team Lead for G.A.B. technologies, Mr. Grassl oversees all 1T projects, timelines, deliverables and strategies. Mr. Grassl is budgeted for 156 hours over two (2) years at a rate of \$85 per hour. He will be a resource to the grant IT Team Lead on the integration of IT systems and the use of other current IT staff and resources needed from the DOA. Mr. Grassl was the chief architect of the Wisconsin Election Data Collection System (WEDCS) and its integration with the SVRS making his knowledge base and expertise in G.A.B. technologies a significant tool in the development of any new projects.

<u>Kamalakar Pasikanti</u>: Mr. Pasikanti has been working with the G.A.B's technologies since 2008 and has experience and knowledge in the technologies that will be integrated with the System. He is budgeted for 40 hours over two (2) years at a rate of \$74 per hour. Mr. Pasikanti will be utilized in the integration and knowledge transfer after the grant period.

<u>Rajesh Kirubanandham</u>: Mr. Kirubanandham was instrumental in the development of the Canvass Reporting System and its integration with the SVRS. His expertise will also be in the integration and knowledge transfer after the grant period. He is budgeted for 40 hours over two (2) years at a rate of \$74 per hour.

#### New Consultants

The rates of these consultants are based on the pay ranges determined by the Wisconsin Department of Administration documented below.

<u>Solution Architect</u>: The Solution Architect will provide software analysis, design, construction, testing, and implementation services. Using Microsoft Technologies this role will work directly with key business users to document requirements, propose software tool design, and use

industry best practices to build the final product from the proposed design. The Solution Architect will be proficient in the following:

- Microsoft .Net Software (ASP/VB/C#)
- Software Development Lifecycle (SDLC) using Microsoft Team Foundation Server Agile Process Guidance
- Model View Presenter (MVP) or Model View View Model (MVVM) Web Application Design Patterns
- Web Portal Technology such as Microsoft SharePoint
- ERP Technology such as Microsoft Dynamics xRM

The Solution Architect will work independently and report status of projects with weekly status reports and manage individual work items through a work list managed in Microsoft Team Foundation Server.

<u>Database Architect</u>: Database Architect will provide database analysis, design, construction, testing, and implementation services. Using Microsoft SQL Server Technologies this role will work directly with key business users and developers to document requirements, propose database schema design, and use industry best practices to build the physical data models from the proposed design. The Database Architect will be proficient in the following:

- Microsoft SQL Server Technology
  - o SQL Data Engine
  - o SQL Reporting Services (SSRS)
  - o SQL Analysis Services (SSAS)
  - o SQL Integration Services (SSIS)
- Software Development Lifecycle (SDLC) using Microsoft Team Foundation Server Agile Process Guidance
- Business Intelligence technology such as:
  - o STAR Schema
  - o SSAS Cube Development
  - o Power Pivot Tables

The Database Architect will perform Extract Transform Load (ETL) work to migrate existing data to the new System and build interfaces to other state agency systems. The Database Architect will work independently and report status of projects with weekly status reports and manage individual work items through a work list managed in Microsoft Team Foundation Server.

<u>IT Team Lead</u>: The IT Team Lead will provide support to the project manager in developing work plans for the technical resources. The Team Lead will act as a chief architect ensuring that the design of all new applications adheres to the approved G.A.B. architecture.

The IT Team Leader will be experienced in leading a team of software developers, infrastructure engineers, and desktop support technicians. Assign tasks to individuals to accomplish work

necessary to meet project deadlines. Work with the team to collaborate on design initiatives and troubleshoot technology issues with staff as they come up.

The IT Team Lead will mentor technical staff in the development of software solutions to meet business requirements, communicate with key stakeholders and executive staff on the progress of projects, and work with the project manager to put proactive plans in place to efficiently meet project milestones.

The IT Team Lead will be familiar with project management methodology such as PMI and Agile software development and lead JAD sessions with business analysts and technical staff to work through product development discussions.

The IT Team Lead should have the following skills:

- Web Application Development Experience
- Database Modeling (Physical and Logical)
- Software Design Patterns
- Project Management and Software Development Methodology Experience (Such as Agile and PMI).
- Experience with Hardware architecture such as (VMWare, Windows Server, SQL Server, IIS, MS Dynamics CRM, LDAP, Citrix, and Active Directory).
- Microsoft Software Development Tools
  - o Visual Studio
  - o MS Office
  - o SharePoint Server
  - o Power Pivot
  - o SSRS, SSAS, SSIS
  - o Team Foundation Server
    - Build Server
    - Task Management
    - Test Server
  - o Visual Test Professional

# g) Materials and Supplies

(\$136,050)

Developer workstations for three consultants and regular workstations for five new staff members will be provided, in addition to one dedicated training server. We will provide the computer hardware, network support services, software and licensing, using state-preferred vendors on a bid basis.

One projector, one speaker phone, and five mobile devices for testing will also be required.

General office supplies are estimated per employee and are based on volume discounts from state-preferred suppliers.

Postage volumes are estimated based on experience, while postage rates are a composite of both international and domestic mailings.

Administrative and special publication printing volumes are based on anticipated educational and training needs at standard costs and will be provided by the Wisconsin Department of Administration agency's in-house printing division.

Email access and desk phones with related monthly telephone service will be provided to the five staff and three consultants.

Office rental space is based on five new staff members and three full-time consultants being added to our existing space under a triple-net lease.

# GAB Application Modernization Project 3-15-2011

# Single Vendor Approach

The Government Accountability Board (G.A.B.) is executing a RFS for four (4) positions which will comprise a "team" approach to support the Statewide Voter Registration System (SVRS). The SVRS application is in need of a modernization project to migrate the system from a Citrix based application to a complete Web based application. Additionally, while moving to a new application platform the application will require a number of major enhancements to support new business goals. It is G.A.B.'s desire to procure a single vendor for this modernization and enhancement project. The single vendor will be selected to reduce the complexity of communication, project management, development design standards, quality assurance process and quality control. G.A.B. has partnered with DOA Bureau of Application Services to provide architecture, design, and project management review/control. The team will be accountable to a G.A.B. governance team for direction and results.

Initially the team will start with four individuals but based upon the frequency and intensity of work requirements G.A.B. may add up to 3 additional staff to the team as necessary to meet program goals. Additionally, G.A.B. would like the flexibility to add or exchange specific team skills to the team to meet program goals. This flexibility will enable G.A.B. to grow the team, based upon project resource demands, to meet changing business requirements.

G.A.B. would prefer to select a single vendor to staff the team, but through this RFS staffing process, reserves the right to exchange individuals in the team. If an individual is selected from another vendor the primary vendor will work to reduce the complexity of this contract by either employing or sub-contracting the individual under the primary vendor's contract.

Requirements of the Selected Vendor include:

- Vendor's team will be jointly managed by the DOA Bureau of Application Support Director and G.A.B. Elections Division Governance team.
- Vendor will be responsible to DOA for approval of technical work products related to the SVRS system and associated applications. This includes the SVRS system architecture, design, development, quality and operational performance.
- Vendor will be responsible to the G.A.B. governance team to meet program objectives through delivery and operation of Elections systems.
- Vendor to provide appropriate metrics on project staff to validate appropriate skill level and quality standards are being met.
- Vendor to provide necessary project artifacts which will be used to measure project control and project execution. This will include the use of PMI earned value analysis, schedule variance and cost variance metrics.
- Vendor to provide positions with a high level of Microsoft applications and database technical skills (certification preferred) required to perform SVRS modernization applications development work.

- Vendor to provide the Team Lead/Technical Architect position with design and development technical skills necessary to guide the design and development of SVRS Modernization.
- Vendor to provide Team Lead/Technical Architect position with project leadership skills to perform WBS, activity scheduling, project management, team leadership and project coordination for Elections to meet SVRS modernization goals.
- Vendor will adhere to DOA application architecture, design and development standards and methodology.
- Vendor will be part of the DOA applications development team and be part of peer developer information knowledge exchange.
- Vendor to work closely with DOA Applications Support management to gain approval on appropriate PMI based work products for each G.A.B. project.
- Vendor to provide appropriate project reviews to the G.A.B. governance team to make sure projects are meeting project milestones, schedule, quality and cost goals.
- Vendor to provide DOA Bureau of Application Support with project and product quality control reviews to make sure products are meeting quality standards.
- Vendor team lead will be responsible for creation of work plans and work status reports for the team.
- Vendor team lead will meet with G.A.B. project governance team on a periodic basis to provide overall project and subproject project status reports using PMI based metrics.
- Vendor team lead will facilitate governance setting sessions with G.A.B. Elections Division governance team on a periodic basis to set project priorities.

G.A.B. plans to interview the vendor firm and architect together as the first step, to ensure that both the firm and the proposed project manager/application architect will meet our needs. G.A.B. also plans to interview the proposed staff for the other team positions as well, as a second step.

# **Project Description**

The Government Accountability Board Elections Division provides applications to local government officials and to the citizens of Wisconsin. G.A.B.'s current portfolio of applications are aging and in need of a technology refresh to more sophisticated web based platforms. In addition to application upgrades, process reengineering should also be tackled to automate existing manual processes. New advances in applications development technologies now enable complete reengineering of systems to eliminate manual processes which will reduce cost and improve efficiency. New technologies integrate Office products, e-mail, automated workflow, GIS and document management; which allow for sophisticated process redesign.

G.A.B. has a portfolio of mission critical applications which need to be reengineered and modernized using these new application development tools and techniques. G.A.B. will first start with modernizing the existing Statewide Voter Registration System (SVRS) by changing platforms to be completely web based. This change will significantly reduce infrastructure cost associated with running the SVRS systems. This modernization will also add new features such as Geographical Information Systems voting district management and add new data decision support enhancements. Other applications which will be modernized and integrated into the

Statewide Voter Registration System include Wisconsin Election Data Collection System, Canvass Reporting System, Polling Place Accessibility Survey, and SVRS interfaces with other State agency systems. A key goal is to do better data analysis with integrated data from the various system using data warehousing techniques.

This project will require the skills of many different Information Technology disciplines such as Project Management, Systems Architecture, Business Analysis, Applications Database Analysts, Quality Assurance and IIS specialist. This project will require the use of four to seven staff during the project duration. G.A.B. would like to utilize a single vendor approach to ensure expertise in systems development, applications support and operations to manage this application portfolio modernization project for G.A.B.

High level project goals for the next 3 years include:

- Implementing web-based mapping to manage district boundaries using GIS technologies
- Upgrading to Windows Server 2008, SQL Server 2008, INET 4.0. Implement 64 bit technology
- Converting high volume user transactions from current client-server based systems to webbased, including entry of voter applications, absentee applications and ballots, and voter history
- Improve overall system performance and response time
- Migrate off of Citrix
- Provide a platform to enable better election data analysis
- Implement new technologies to enable better collaboration with local election officials and federal partners

# **Technical Overview**

The SVRS is a complex multi-tiered application that is used by 1400+ users in approximately 700 locations across the State of Wisconsin. The system was developed using the Microsoft .NET platform with a SQL Server database. It is a client-server application but is delivered to users over the internet via Citrix Metaframe.

The SVRS is a centralized technical architecture built on Microsoft Windows Server 2003 and .NET framework. It runs on an n-tier application with a web presentation layer, business logic components in the application layer, and a clustered database in the backend layer. The run-time environment includes the .NET framework version 1.1 and 2.0, IIS version 6.0 and ASP.NET version 1.1 and 2.0. The database is SQL Server 2005. SVRS utilizes Citrix Metaframe to deliver the application to users over the internet. Infrastructure services include Microsoft SQL Server Reporting Services, Microsoft Clustering Services, Active Directory, and Terminal Services. Most of the application code is written in VB.NET with a small set of code in C++.

The Production environment is scaled for 1000 concurrent users in locations across the State of Wisconsin. The environment consists of two (2) web application servers, four (4) Citrix Secure Gateway servers, two (2) SQL Reporting servers, one (1) batch processing web server, eighteen (18) Citrix Metaframe Presentation application servers, four (4) database servers (the first two

configured as active/active and the other two as active/passive), two (2) Active Directory Domain Controllers, one (1) Certificate Server, and one (1) Citrix Management server. SVRS uses Cisco 7200 series routers for Internet access and internal routing, Cisco Catalyst 6500 series switches for its core multilayered switching functions, and a pair of enterprise class high speed firewalls. The SVRS hardware currently consists of 1BM BladeCenter components and a Storage Area Network. A new physical infrastructure is being implemented with virtual servers utilizing VMWare on ESX Host machines.

SVRS also includes data interfaces with three state agencies, the Department of Corrections, the Department of Health Services, and the Department of Transportation, which utilize XML.

The Wisconsin Data Collection System (WEDCS), Canvass Reporting System (Canvass), and Polling Place Accessibility System (PPAS) are stand-alone web-based applications that reside within the SVRS infrastructure. They include web-based data entry screens written in .NET using C#.. These systems use MVP architecture, and SQL Analysis Services and SQL Integration Services.

#### Vendor Management Services Agreement # 27702-LF

Strike;

THIS VENDOR MANAGEMENT SERVICES AGREEMENT (this "Agreement") is dated as of Dec. 30, 2005, by and between the Department of Administration on behalf of the State of Wisconsin located at 101 East Wilson Street, Madison, Wisconsin, 53702 ("State") and COMSYS Information Technology Services, Inc., with its principal place of business located at 4400 Post Oak Parkway, Suite 1800, Houston, Texas 77027 ("COMSYS" or "Contractor").

WHEREAS, COMSYS is in the business of providing Vendor Management Services (VMS) to assist clients in the automation of their staffing management processes; and

WHEREAS, State desires COMSYS to assist in the automation and management of its temporary information technology (IT) services supplier needs by providing the services described herein;

**NOW,** THEREFORE, in consideration of the mutual covenants and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

#### ARTICLE I. DEFINITIONS

Whenever used in this Agreement, the terms set forth below shall have the meanings ascribed to them below. Other terms are defined in the context in which they first appear. Where the context so indicates, a word in the singular form shall include the plural and vice versa.

- 1.0 "<u>Agency Acceptance</u>" or <u>"Requisition Acceptance</u>" means the information entered by a State or Local Agency into the VMS System indicating State's acceptance of an IT Services Supplier Candidate Offer in response to an Agency Requisition.
- 1.1 "<u>Agency Requisition</u>" or "<u>Requisition</u>" means that document entered by a State or Local Agency into the VMS System that contains specifications and requirements pertaining to a need for service to be obtained by COMSYS from a qualified IT Services Supplier in accordance with the terms and condition of this Agreement.
- 1.2 "<u>Billing Period</u>" means the regular interval for time collection and involcing under this Agreement, as further clarified in the Business Rules as either monthly, semi-monthly, or bi-weekly.
- 1.3 "<u>Candidate Offer</u>" means an offer made by an IT Services Supplier to provide one or more IT Services Supplier Candidates in response to a Requisition submitted through the VMS System.
- 1.4 "Effective Date" means the date on which both Parties have signed this Agreement.

- 1.5 "Fee" means the two and one-half percent (2.5%) fixed percentage deducted by COMSYS for administrative costs from the amount paid by the State or Local Agency to an IT Services Supplier for an Engagement.
- 1.6 "Engagement" means the provision of IT Services upon the assignment of IT Services Supplier Personnel to a State or Local Agency pursuant to an Agency Requisition and Acceptance.
- 1.7 "<u>IT Services Supplier</u>" means a supplier of temporary Personnel, approved by the State to be included in the VMS Program, that has executed a Supplier Participation Agreement with COMSYS. An approved IT Services Supplier may be an IT Services Supplier who is currently providing IT services to the State or that has a current contract with the State. This term shall include any subcontractor or consortium member of the IT Services Supplier.
- 1.8 "Local Agency" means a county, village, town, municipality or other local governmental entity in the State of Wisconsin.
- 1.9 "<u>Personnel</u>" or "<u>IT Services Supplier Personnel</u>" means personnel temporarily-assigned by an IT Services Supplier for an Engagement, who is employed by or under contract with the IT Services Supplier, or who is an employee or independent contractor of a subcontractor to an IT Services Supplier.
- 1.10 "<u>Vendor Management Services</u>" means the Vendor Management Services provided by COMSYS hereunder and further described on Attachment A, attached hereto and made a part hereof.
- 1.11 "<u>State</u>" means the sovereign State of Wisconsin, and is sometimes used herein to include "State Agency" or "Local Agency."
- 1.12 "<u>State Agency</u>" means any department, board commission, council or other subunit of the Wisconsin State government, including the University of Wisconsin, but excluding Local Agencies.
- 1.13 "Supplier Participation Agreement" means the agreement entered into and signed by COMSYS and an IT Services Supplier that grants the IT Services Supplier the right to participate in the VMS Program, to supply services to the State through the VMS Program, to use the VMS System in connection with the services provided to State, and which describes all processes critical to acquiring and maintaining IT Services Supplier Personnel under the VMS Program, including, but not limited to, provisions regarding rates, timekeeping, invoicing and payment.
- 1.14 "<u>VMS Program</u>" means the Vendor Management Services program implemented for the State under this Agreement
- 1.15 "<u>VMS System</u>" means COMSYS' web-based Vendor Management System used in connection with the Vendor Management Services provided hereunder to register IT Services Supplier Personnel, post Requisitions, receive offers, analyze bids, manage acceptance procedures, process timesheets of IT Services Supplier Personnel,

administer invoice and payment of IT Services, and oversee the evaluation and closure of Requisitions.

# ARTICLE II. TERM AND TERMINATION

2.1 <u>Term</u> This Agreement shall be effective as of the Effective Date and shall remain in full force and effect for a period of two (2) year(s) thereafter (the "<u>Term</u>"), unless earlier terminated pursuant to this Article II. The Term may be extended for three (3) additional periods of one (1) year after its expiration upon mutual agreement of the Parties.

2.2 <u>Termination for Cause</u>. Either Party may terminate this Agreement for cause at any time after one hundred twenty (120) calendar days from the Effective Date upon at least thirty (30) calendar days prior written notice to the other Party in the event that the other has materially breached any of the terms or conditions of this Agreement and such breach has not been cured within such notice period. Notwithstanding termination of this Agreement, and subject to any reasonable directions from the other Party, both Parties shall take timely, reasonable, and necessary action to protect, preserve, and return property, including Confidential Information, including all data, materials and programs in the custody and control of a Party in which the other Party holds an interest. Upon termination, the State's liability will be limited to the cost of the services performed by the IT Services Suppliers as of the date of termination.

2.3 <u>Termination for Convenience</u>. The State may terminate this Agreement for convenience at any time after one (1) year from the Effective Date at its sole discretion by delivering a written notice to COMSYS ninety (90) calendar days prior to the termination. Notwithstanding termination of this Agreement, and subject to any reasonable directions from the other Party, both Parties shall take timely, reasonable, and necessary action to protect, preserve, and return property, including Confidential Information, including all data, materials and programs in the custody and control of a Party in which the other Party holds an interest. Upon termination, the State's liability will be limited to the cost of the services performed by the IT Services Suppliers as of the date of termination

Termination of Engagement/Personnel Substitution. A State or Local Agency has the 2.4 sole discretion to terminate an Engagement for cause upon written notice to COMSYS. The State or Local Agency shall make reasonable efforts to provide COMSYS advance notice of any such termination of an Engagement for cause so that COMSYS may give the IT Services Supplier an opportunity to cure, but the State or Local Agency shall not be required to do so if such is not in the State or Local Agency's best interest. Upon such termination, the State or Local Agency shall submit to COMSYS, with a copy to the State Contract Manager, an explanation of the cause of such termination. If a significant number of such terminations occur, the IT Services Supplier may be removed from the VMS System at the sole discretion of the State. A State or Local Agency may request immediate removal of any Personnel, for any lawful reason, without terminating the Engagement and may request that the individual be replaced within ten (10) working days. If the removed individual is not replaced with Personnel approved by the State or Local Agency and having equal or better qualifications, the State or Local Agency may terminate the remainder of the Engagement by written notice and may assess Liquidated Damages for failure to perform.

Should any Personnel prematurely leave an Engagement for any reason, COMSYS shall use its best commercially reasonable efforts to provide a written notice ten (10) working days in advance to the engaging State or Local Agency. Substitution of Personnel is subject to approval by the engaging State or Local Agency. Substitution Personnel shall be provided at no cost to the State for the first three (3) weeks (for training purposes) of any Engagement of six (6) months or greater length.

2.5 <u>Engagement Termination for Convenience</u>. A State or Local Agency may terminate an Engagement for convenience upon written notice to COMSYS. The State or Local Agency shall make reasonable efforts to provide COMSYS five (5) business days advance notice of any such termination of an Engagement for convenience so that COMSYS may give the IT Services Supplier notice, but the State or Local Agency shall not be required to do so if such is not in such State or Local Agency's best interest.

2.6 <u>Other Termination</u>. Either party may terminate this Agreement immediately upon written notice in the event that the other party is adjudged insolvent or bankrupt, or if any proceedings are instituted by either party (or against it, if not dismissed within ninety (90) days of filing) seeking relief, reorganization, or other arrangement under any laws relating to insolvency, or upon the assignment for the benefit of creditors, or upon the appointment of a receiver, liquidator or trustee of its property or assets, or upon the liquidation, dissolution or winding up of its business.

2.7 <u>Assignment Upon Termination</u>. Upon termination of this Agreement for any reason, COMSYS shall either terminate, or assign to the State or the State's designee, the IT Services Suppliers' Participation Agreements as directed by the State. COMSYS shall cooperate with the State in the transition of the VMS Program, including all of the data that resides in the VMS System applicable to this Agreement, to another third party or to an internal State resource and, if requested by the State, shall provide it with on-site transition services for a reasonable period of time. If COMSYS is no longer receiving its Fee hereunder, such transition services shall be provided at current market rates.

2.8 <u>Termination for Misappropriation / Non appropriation</u>. The State reserves the right to terminate this Agreement without penalty, due to COMSYS' misappropriation of funds, or in the event that the Legislature fails to appropriate the funds necessary to complete this Agreement. If possible, the State shall provide reasonable advance notification in the event that funds are not appropriated, and the State shall not authorize work to be performed by COMSYS if funds have not been appropriated. Termination due to non-appropriation shall be considered a termination for the State's convenience in accordance with Section 2.3 (Termination for Convenience).

2.9 <u>Termination Due to insufficient Agency Participation</u>. No earlier than nine (9) months after <u>initial implementation</u> of the VMS Program, COMSYS may submit a written request for termination of this Agreement based upon a good faith determination that this Agreement cannot be performed by it without material losses to COMSYS due to insufficient Agency participation in the VMS Program. For the purposes of this Section 2.9, and not as a guarantee of the State's annual spend, the parties agree that the volume of IT Services Supplier business run through the VMS Program must be reasonably projected to be less than \$10,000,000 annually for <u>Agency</u> participation to be deemed "insufficient" hereunder. The State agrees to perform a good faith review and evaluation of the VMS Program, including a review and evaluation of all documentation presented by COMSYS. The State shall not

unreasonably withhold its consent to terminate this Agreement if requested by COMSYS in accordance with these provisions. If the State consents to the termination of this Agreement hereunder, such termination shall be effective no less than ninety (90) days and no more than one hundred twenty (120) days from the date of COMSYS' written request. In the event of a termination of this Agreement by COMSYS pursuant to this Section 2.9, COMSYS shall cooperate with the State to find a provider of a new program and system to replace those provided by COMSYS hereunder. Termination due to insufficient Agency participation shall be treated as a Termination for Convenience under Section 2.3.

#### ARTICLE III. VENDOR MANAGEMENT SERVICES

3.1 COMSYS shall provide the Vendor Management Services described in Attachment A pursuant to each Requisition Acceptance. COMSYS, in coordination with State, shall develop an implementation plan for Vendor Management Services to be provided, including a schedule of implementation of the VMS for State and Local Agencies, and shall submit the same to State within thirty (30) days of the Effective Date. This shall be a mandatory statewide contract for all State Agencies, but shall be an optional contract for Local Agencies.

3.2 COMSYS shall work with the State to develop the State's Business Rules for the implementation and maintenance of the VMS Program (the "<u>Business Rules</u>"). These Business Rules shall further define COMSYS' role in managing the IT Services Suppliers (which may or may not be consistent across all job categories and/or across the geographic area of the VMS Program) and in interacting with State Agencies (including corporate, management, or operational users). These Business Rules shall be as agreed to by the Parties in writing and shall be attached to and become part of this Agreement as **Attachment B** COMSYS shall agree to any Business Rules reasonably proposed by State. Any proposed changes to these Business Rules shall be discussed in good faith by the Parties and agreed changes shall be as set forth in writing signed by the Parties as an amendment to this Agreement.

3.3 COMSYS shall develop a package of documentation and explanatory materials with the ٩. help of the State for distribution to the IT Services Suppliers so as to facilitate the efficient and effective rollout of the VMS Program with the IT Services Suppliers upon deployment. COMSYS shall distribute to the IT Services Suppliers a VMS Program implementation package that shall include (a) a letter of introduction to the VMS Program; (b) an End User Confidentiality and Nondisclosure Agreement for the use of software to be accessed by IT Services Suppliers (if applicable); (c) a COMSYS VMS Program supplier package, including a Supplier Participation Agreement and guestionnaire; and (d) any other documentation provided by State regarding State's required terms and conditions, safety and Human Resources policies and procedures, or any other State policies and procedures as directed by State. An Engagement for the State may require additional specific procedures, rules, and security provisions that shall be agreed to by the IT Services Supplier before Requisition Acceptance. COMSYS shall negotiate the terms of the COMSYS Supplier Participation Agreement with the IT Services Suppliers in accordance with the Business Rules and COMSYS' own VMS Program supplier procedures. All Supplier Participation Agreements shall be identical for all IT Services Suppliers. The Supplier Participation Agreement shall be signed by both the IT Services Supplier and COMSYS prior to an IT Services Supplier being allowed to participate in the VMS Program

3.4 COMSYS shall develop an information package describing the VMS Program for distribution to State and State and Local Agencies, and provide appropriate training, including instructions on approval procedures.

3.5 Effective upon the deployment of the VMS Program to a State or Local Agency, State Requisitions for IT Services Supplier Personnel from that respective State or Local Agency shall be placed in the VMS System in accordance with the Business Rules. Notwithstanding the foregoing, the State reserves the right to determine that its IT services needs are best procured through its own Request for Bids or Request for Proposals process, rather than through the VMS System.

3.6 The State or Local Agency shall be responsible for establishing Engagement start and end dates. Engagements estimated to be for a duration of more than three (3) years or that will entail payment of more than one million dollars (\$1,000,000) to a single IT Services Supplier in one (1) year cannot be processed through the VMS System or handled through the VMS Program without the prior written consent of the State's Contract Manager. COMSYS shall monitor all State and Local Agency Requisitions for such Engagements and costs, and shall promptly inform any such Agency and the State's Contract Manager that the VMS System cannot process such a Requisition. In some cases, the State or Local Agency project's end date will extend past the agreed Engagement end date. The Personnel may continue to provide services to that State or Local Agency for that project until it is completed or terminated, provided that the three (3) year Engagement limitation is not exceeded. Approval to continue with any specific Engagement for more than three (3) years, or to make payment of one million dollars (\$1,000,000) or more in one (1) year for such Engagement may only be granted by the State Contract Manager in writing.

3.7 COMSYS shall use commercially reasonable efforts to locate and obtain from Stateapproved IT Services Suppliers IT Services Personnel that meet the State's written specifications in a Requisition, consistent with the Business Rules. Personnel shall bring an appropriate set of skills to any Engagement, but each State or Local Agency shall have ultimate responsibility for managing the completion of the project involved. Security and background checks of Personnel may be required, based on the State or Local Agency involved and the sensitivity of the project. The State and Local Agency shall initiate the security check and the IT Services Supplier shall be required to address all security concerns. COMSYS shall further resolve any issues between the State and the IT Services Suppliers concerning Personnel, including issues relating to bill rate adjustments, time reporting discrepancies, terminations and/or extensions of assignments, and any other dispute regarding performance.

The State or Local Agency engaging services of an IT Services Supplier hereunder shall evaluate the Personnel's performance following the completion of a project. Evaluations shall be made available to other State and Local Agencies via a central repository of evaluations ("Evaluation Repository"). Evaluations shall constitute "public records" under Wisconsin law and shall be available for inspection and copying. Before being placed in the Evaluation Repository, all evaluations shall be reviewed by the specific evaluator's supervisor and the IT Services Supplier. Such evaluation(s) may be reviewed by the State and be used for evaluating future Candidate Offers. Comsys shall encourage Agencies to submit Personnel evaluations for each Engagement. Resistance to this request and/or submittal of evaluations that appear to be bogus shall be reported to the Contract Manager.

The IT Services Supplier shall allow a State or Local Agency the 'first right of refusal' on any re-engagement Personnel by the IT Services Supplier. Stated in other words, prior to committing or reassigning currently engaged Personnel, the IT Services Supplier must contact the State or Local Agency involved and allow it to either extend its Engagement or release the Personnel at the end of the Engagement.

During an Engagement, if additional staff training is requested by a State or Local Agency, the IT Services Supplier and the State or Local Agency shall agree to one of the following options:

A) Training costs to be borne by the State or Local Agency and NO hourly rate to be charged while the Personnel is in training.

B) Training cost to be borne by the IT Services Supplier and the State or Local Agency to be charged an hourly rate.

3.8 Notwithstanding anything to the contrary herein, the State acknowledges and agrees that in connection with performing Vendor Management Services hereunder COMSYS shall use software products licensed from one or more third parties selected solely by COMSYS and may use the services of personnel of such licensors in connection with the Vendor Management Services, including, but not limited to, the maintenance, implementation and operation of such software products; provided, however, that all such personnel shall be subject to the same standards for engagement of any employee of COMSYS. Further, the hosting of the website over which certain Vendor Management Services hereunder shall be provided may be maintained by COMSYS or by a third party selected solely by COMSYS. In addition, COMSYS shall use a third party selected solely by COMSYS to provide back-up/recovery services and co-location services in the event that the website used by COMSYS to provide back-up/recovery services and co-location services should experience technical or other difficulties.

3.9 COMSYS shall utilize a vendor management software tool (the "<u>Software</u>") in connection with the acquisition, tracking, reporting and invoicing of the services of the IT Services Suppliers for the State hereunder. The Software may be proprietary to COMSYS or may be a third party product, as may be agreed by COMSYS and the State. COMSYS shall provide the State (including Local Agencies) and the IT Services Suppliers with access to the Software for the purposes posting and responding to Requisitions and timekeeping for the Personnel. In such case, COMSYS shall provide the State and the IT Services Suppliers with passwords and access instructions for the Software, provided that the State and the IT Services Suppliers having access to the Software shall have signed COMSYS' or the third party provider's End User Confidentiality and Nondisclosure Agreement, as applicable.

3.10 COMSYS shall work with the State to develop performance metrics for measuring the on-going performance of the IT Services Suppliers and to report to the State on the results thereof on a quarterly basis or as requested. COMSYS shall work with the State to develop performance metrics for its own performance under this Agreement, including its continued assistance to the State in increasing its administrative efficiencies and costs savings resulting from the VMS Program, and shall report to the State on the results thereof on a quarterly basis or as requested.

3.11 COMSYS shall identify and assist the State in identifying "best practices" for the IT Services Suppliers, and shall provide same to the IT Services Suppliers from time to time at the direction of the State.

3.12 COMSYS shall communicate with the State on a regular basis regarding the status of the rollout of the VMS Program to the IT Services Suppliers. COMSYS shall further communicate with the State regarding the failure of any IT Services Supplier to appropriately complete the implementation package and the failure of any IT Services Supplier to comply with the terms and conditions of their Supplier Participation Agreements or the Business Rules. COMSYS shall follow the escalation/termination process established in the Business Rules to reprimand or terminate such IT Services Supplier from the VMS Program. If eliminated from the VMS Program, such IT Services Supplier shall cease to receive any further Requisitions, and shall not be allowed to be a subcontractor or a consortium member with an IT Services Supplier enrolled in the VMS Program.

3.13 A State or Local Agency's approval of a Personnel's time records shall constitute the State or Local Agency's agreement to pay for such approved time at the applicable hourly rate. Notwithstanding the foregoing, a State or Local Agency's approval of a Personnel's time records shall not constitute acceptance of the work performed, and shall not operate as a waiver of the State or Local Agency's rights under the respective IT Services Supplier's Supplier Participation Agreement, including, but not limited to the warranty provision.

3.14 A State or Local Agency shall receive a detailed, consolidated and itemized invoice for all time entered by Personnel during the previous Billing Period that had been approved by the State or Local Agency charged at the hourly rates approved during the Requisition Acceptance reflected in the VMS System and in effect for such Engagement. The State or Local Agency agrees to pay properly submitted involces within thirty (30) days of receipt of such involce. Invoices presented for payment shall be submitted to the correct State or Local Agency address for processing in accordance with the Business Rules or, if applicable, instructions contained on the purchase order, including reference to such purchase order. Cut-off dates for the entry of time by Personnel and indication of State or Local Agency's approval of such time shall be as set forth in the Business Rules. In the event of a good faith dispute by a State or Local Agency, the State or Local Agency's obligations to pay invoices hereunder shall be governed by and subject to s. 16.528, Wis. Stats.

3.15 Upon receipt of payment by the State or Local Agency to COMSYS for the consolidated periodic invoice, COMSYS shall pay the IT Services Suppliers for the IT Services Supplier invoices reflected therein, less COMSYS' administrative fees as set forth in Section 1.5 of this Agreement.

3.16 COMSYS shall provide to the State such standard reports regarding the IT Services Suppliers and/or the VMS Program as the Parties may from time to time agree in writing. Adhoc reports shall be considered if standard reports do not provide reasonably required information to State Standard reports shall be defined in the Business Rules. Ad hoc reports shall be determined on an as needed basis between the State's Contract Manager and COMSYS

3.17 COMSYS shall provide help-desk support relating to COMSYS' Vendor Management Services. The first level help-desk support personnel shall be located in Madison WI.

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3.18 COMSYS shall advise and work with the State's Contract Manager as the need arises to revise the rate card(s) and change or add to existing Personnel job descriptions. At least annually, the COMSYS shall review all rates cards and job descriptions and advise the State's Contract Manager accordingly.

3.19 During the Agreement Term, <u>COMSYS shall provide training at multiple levels for each</u> of the State and Local Agencies as agreed to by the Parties. Training shall cover the use of the Software, if applicable, as well as processes and procedures of the VMS Program. <u>COMSYS may set minimum attendance requirements for any web seminars or classroom</u> training sessions and State shall make all reasonable efforts to ensure that the minimum number of State or Local Agencies employees attend. Training provided by COMSYS during the Term may be provided by a combination of the following: (a) scheduled web seminars (on line training), (b) alternative training, including stand-up classroom training; (c) full user documentation including on line user guides, (d) help screens in the Software; and (f) new release update training. The type of training to be conducted by COMSYS shall be determined by agreement of the Parties as needs arise during the Term.

3.20 The Vendor Management Services shall be provided by a team of COMSYS personnel as set forth in a project charter (the "<u>Project Charter</u>") that will be delivered to the State by COMSYS. The responsibilities, services to be performed, and the location of each of the COMSYS teams will be included in the Project Charter. The number of Comsys personnel provided in each team shall be itemized in the Project Charter. COMSYS reserves the right at all times during the Term to adjust the numbers and skill sets of the team members as reasonably required by the size and nature of the VMS Program at the time. The State's Contract Manager may request immediate removal of any COMSYS personnel located in Madison, Wisconsin and assigned to provide Vendor Management Services under this Agreement, for any reason, including but not limited to performance problems related to this Agreement. The Contract Manager may request that the individual be removed immediately, and COMSYS shall have ten (10) working days in which to provide a replacement acceptable to the State.

3.21 Prior to registration of any State or Local Agency into the VMS System, COMSYS, in coordination with the State, shall develop a standard State or Local Agency Requisition document.

3.22 The State shall approve the Supplier Participation Agreement and, throughout the Term of this Agreement, shall approve any amendments to the form of Supplier Participation Agreement or any IT Services Supplier's Supplier Participation Agreement which reasonably relate to or affect the legal or business issues of the State, provided, however, that such approval rights shall not imply any right to require COMSYS to accept any terms that impose additional administrative burdens, costs or expenses in fulfilling its obligations hereunder or to reduce the revenues that it would otherwise receive by the terms of this Agreement.

Any provision required by the State to be included in a Supplier Participation Agreement shall be for the benefit of the State and COMSYS agrees to expressly make the State a thirdparty beneficiary of any such provisions The Supplier Participation Agreement shall contain all provisions expressly required in this Agreement, as well as a description of all processes critical to acquiring and maintaining IT Services Supplier Personnel under this Agreement, including without limitation, provisions regarding placement rates, renewals, adjustments of supplier personnel rates and non-binding mediation by State of disputes with COMSYS or any IT Services Supplier No Supplier Participation Agreement shall deviate from the form approved by State without the prior written consent of State. The State prefers identical Supplier Participation Agreements; therefore deviations shall not be approved unless determined by the State to be in the State's best interests.

# ARTICLE IV. REQUISITIONS

4.1 During the Term of this Agreement, COMSYS may receive Requisitions for Personnel from a State or Local Agency and respond thereto with a IT Services Supplier Candidate Offer. COMSYS shall use commercially reasonable efforts to locate and obtain from State-approved IT Services Suppliers such Personnel according to the written specifications in a Requisition. Each instance whereby Comsys is unable to locate qualified Personnel to meet the Agency's needs, Comsys shall provide documentation to the Contract Manager identifying the type of personnel and the reasons that the Requisition could not be fulfilled (e.g, State's job descriptions do not include this type of experience or qualification, vendor's will not adhere to the rate card rate, Agency request too restrictive, etc.).

4.2 Each Candidate Offer shall contain detailed information on the IT Services Supplier Candidate, including, but not limited to, a completed skills profile, resume and an hourly rate quote. The hourly rate must include the candidate's hourly wages, including benefits. If a Requisition requires special equipment and/or services for the assignment, the Candidate Offer shall confirm that such special equipment and/or services can be provided and a quote for same.

4.3 For any and all Personnel provided to a State or Local Agency hereunder, said State or Local Agency shall enter into the VMS System an Agency Acceptance. An Agency Acceptance shall be deemed to incorporate by reference the terms and conditions of this Agreement. An Agency Acceptance shall set forth the names, hourly rates and labor classifications of any Personnel offered thereunder, and a general description and anticipated duration of the Engagement. In addition, a Purchase Order from the Agency may be required.

4.4 A State or Local Agency shall issue a new Requisition for each new project, and may not transfer any current Personnel provided by an IT Services Supplier to another project. A State or Local Agency shall not be allowed to add Personnel from an IT Services Supplier currently providing Personnel to said Agency under a Requisition unless the original Requisition required more than one individual to fulfill its IT Services needs.

4.5 COMSYS shall notify all IT Services Suppliers of every Requisition submitted by State and Local Agencies, except when the estimated total cost of services does not exceed \$25,000 or except as directed in writing by the State's Contract Manager.

4.6 The State agrees that COMSYS may respond to Requisitions with Candidate Offers from an IT Services Supplier that is affiliated with COMSYS, provided, however, that any such Candidate Offer shall be treated, processed or administered by COMSYS in strict accordance with the Business Rules (including, but not limited to, any Business Rules specifically pertaining to the participation in the VMS Program by a COMSYS affiliate), and further provided that COMSYS shall not intentionally give either an affiliated IT Services Supplier or any other IT Services Supplier any advantage in the VMS Program in violation of the Business Rules except at the express direction of the Contract Manager or the respective Local Agency. A material breach by COMSYS of its obligations under this Section 4.6 shall entitle the State, in its sole discretion, to immediately upon written notice terminate this Agreement for cause pursuant to Section 2.2.

# ARTICLE V. PRIMARY CONTACTS

5.1 COMSYS and the State respectively appoint the individuals designated on Attachment C, attached hereto and made a part hereof, to act as their primary contacts (the "Primary Contacts"). Each Primary Contact shall have overall responsibility for his or her party's communications regarding performance of both Parties under this Agreement and shall have approval authority for all operational matters. Each Party shall notify the other Party upon changing its Primary Contact.

Subject to and in accordance with the terms of this Agreement, the Primary Contacts shall meet at least quarterly to review each Party's performance, coordinate the provision of services hereunder, and to discuss the State's future requirements.

5.2 All communications between a State or Local Agency and an IT Services Supplier regarding any contractual matter under this Agreement, or related to a Requisition or an Engagement, shall be made through COMSYS through an established process. COMSYS shall ensure that this communication process is made known to both all State and Local Agencies and IT Services Suppliers.

#### ARTICLE VI. STATE RESPONSIBILITIES & COMSYS ASSUMPTIONS

6.1 The State shall provide an executive sponsor who shall champion and support the implementation of the VMS Program. State's designated executive sponsor shall be the Administrator of the Division of Enterprise Operations in the Department of Administration.

6.2 The State shall commit the necessary technical and management resources to fully support the Vendor Management Services under this Agreement and the effective implementation and management of the VMS Program as agreed by the Parties in writing.

6.3 The State shall provide access to all required internal and confidential information as necessary for COMSYS' successful performance of the Vendor Management Services hereunder.

6.4 The State shall ensure that the State or Local Agency' websites that are to be part of the VMS Program shall be web-enabled prior to the deployment of the VMS Program on the respective State or Local Agency' websites.

6.5 The State shall initiate communications to the IT Services Suppliers prior to implementation of the VMS Program to introduce COMSYS and the VMS Program.

6.6 The State acknowledges that COMSYS cannot guarantee the performance of systems, hardware, communications networks, the Internet, software products, or personnel who are not COMSYS employees, or who are not subcontractors of COMSYS providing Vendor Management Services hereunder

6.7 The State shall participate in regularly-scheduled meetings with COMSYS to provide feedback and support to facilitate COMSYS' successful completion of the Vendor Management Services hereunder. State shall identify and make available key internal support resources to facilitate such meetings as necessary and to provide information and feedback.

6.8 Neither the State nor any State Agency shall be responsible for the obligations or liabilities of any Local Agency hereunder, nor shall the State or any State Agency be responsible for any act or omission of any Local Agency under this Agreement. Any Local Agency that utilizes this Agreement shall be responsible for its own acts or omissions hereunder.

#### ARTICLE VII. INVOICING, PAYMENT AND COMPENSATION

COMSYS shall electronically submit to each State or Local Agency on a periodic basis as set forth in the Business Rules a detailed, consolidated and itemized invoice for the services of the IT Services Suppliers' Personnel for the immediately preceding Billing Period. The State or Local Agency, as the case may be, shall pay COMSYS the amount invoiced within thirty (30) days after receipt of the electronic invoice, provided that the time worked and services performed have been approved by the State or Local Agency. If the State disputes a portion of an invoice, it may withhold payment of the dispute amount and shall pay the remainder of the invoice without delay, or may request that COMSYS submit a new invoice for any amount that the State does not dispute. The State shall notify COMSYS of the specific grounds for its dispute (including the name of the IT Services Supplier Personnel and the Billing Period involved) on or before the date the payment of such involce is due or made. Within seven (7) days of receipt of the State's payment of an invoice, COMSYS shall pay the IT Services Suppliers for the IT Services Supplier invoices reflected therein, less COMSYS' Fee. Payments to IT Services Suppliers shall be by check unless otherwise agreed to by the Parties. COMSYS shall invoice a State or Local Agency for the services of an IT Services Supplier only after the implementation of the VMS Program at such Agency and after such Agency's personnel have been trained to use the VMS System.

#### ARTICLE VIII. INDEPENDENT CONTRACTOR

8.1 COMSYS, the State, IT Services Suppliers and Personnel are independent contractors with respect to the performance of all work to be performed hereunder and neither COMSYS, any COMSYS personnel, IT Services Suppliers nor any Personnel shall be deemed for any purpose to be an employee, agent, servant or representative of the State or any State or Local Agency.

8.2 Neither COMSYS, COMSYS personnel, IT Services Suppliers, nor Personnel shall participate in any of the State's IRS qualified benefit plans nor shall they be entitled to receive any benefits under any employee benefit plan or program of any kind maintained by State (unless such benefits had already been earned by these personnel as former State employees or retired State employees).

8.3 This Agreement does not and shall not be construed to create any partnership or agency whatsoever. Neither COMSYS, COMSYS personnel, IT Services Supplier nor any Personnel shall be deemed to be a partner, agent or legal representative of the State for any

purpose other than the purpose of this Agreement as set forth in the previous paragraph, nor shall COMSYS, COMSYS personnel, IT Services Supplier nor Personnel have any authority or power to act for, or to undertake any obligation or responsibility on behalf of the State or any State or Local Agency other than as expressly herein provided.

# ARTICLE IX. TAXES

9.1 COMSYS recognizes that the State is exempt from payment of all federal tax and Wisconsin state and local taxes, including Wisconsin sales or use taxes, on its purchases except in regard to Wisconsin excise taxes. State may be subject to other states' taxes on its purchases in that state depending on the laws of that particular state.

9.2 COMSYS shall forthwith pay all taxes lawfully imposed upon it with respect to this Agreement or any product delivered in accordance herewith. The State makes no representation whatsoever as to the liability or exemption from liability of the COMSYS to any tax imposed by any governmental entity. Upon request the State shall provide COMSYS with a certificate of any tax exemptions, which apply, to this Agreement. The State's tax exempt number shall be placed on all State Purchase Orders issued pursuant to this Agreement.

9.3 COMSYS covenants to include in each IT Services Supplier Participation Agreement substantially the following provision:

"IT Services Supplier shall forthwith pay all taxes lawfully imposed upon it with respect to this agreement or any product delivered to State or State or Local Agency in accordance herewith. Neither COMSYS nor the State make any claim whatsoever as to the liability or exemption from liability of the IT Services Supplier to any tax imposed by any governmental entity, and shall not reimburse the IT Services Supplier or pay any tax that is listed on any invoice."

# ARTICLE X. EXISTING IT SERVICES CONTRACTS: TRANSFER AND ASSIGNMENT, STATUS DURING ROLLOUT PERIOD

10.1 <u>Existing IT Services Contracts</u>. The State hereby declares, and COMSYS acknowledges, that the State has approximately seventy (70) IT services contracts (the "<u>State IT Services Contracts</u>") with various contractors extant on the Effective Date of this Agreement ("<u>Pre-existing IT Services Suppliers</u>").

Upon the Effective Date, COMSYS shall provide the Pre-existing IT Services Suppliers with a Supplier Participation Agreement that will enroll the Pre-existing IT Services Suppliers into the VMS Program as IT Services Suppliers. Effective upon the full implementation of the VMS Program at a specific State or Local Agency, the IT Services Suppliers' current Engagements for the specific State or Local Agency shall be transitioned from the IT Services Suppliers' respective State Services Contracts to the IT Services Suppliers' respective Supplier Participation Agreements. COMSYS shall not invoice a State or Local Agency for the services of an IT Services Supplier until the VMS Program has been fully implemented at such Agency. Under no circumstances shall an IT Services Supplier or Engagement be transitioned into the VMS Program if it was not first procured using the IT Services Supplier's State IT.

Services Contract, nor may COMSYS collect a Fee for any such IT Services Supplier or Engagement.

<u>10.2 Status of IT Services Contracts During VMS Program Rollout</u> The Parties acknowledge and agree that while State (but not Local) Agencies are transitioning into the VMS Program, the services being provided to such State Agencies by the Pre-existing IT Services Suppliers shall continue to be governed by the terms and conditions of the applicable State IT Services Contracts until full implementation of the VMS Program at such State Agency and until such Pre-existing IT Services Suppliers have enrolled in the VMS Program as IT Services Suppliers and have signed Supplier Participation Agreements.

#### ARTICLE XI. OWNERSHIP OF WORK PRODUCT, COPYRIGHTS, PATENTS, TRADEMARKS AND OTHER MATTERS

11.1 Title to all plans and specifications and technical data, including, but not limited to, drawings, flow diagrams, layout details and specifications, computer programs and the contents thereof furnished to COMSYS by the State hereunder shall remain the property of the State. COMSYS shall execute any assignments, applications or other instruments as may be necessary to carry out the foregoing.

11.2 Notwithstanding the foregoing paragraph, all copyrightable works that IT Services Suppliers, or Personnel create and have created at the request and direction of the State pursuant to a Supplier Participation Agreement to this Agreement (including, but not limited to, documents, computer programs, software, literary works, pictorial works, graphic works, sculptural works, audiovisual works, sound recordings, and architectural works) shall be and are "works made for hire" under federal copyright law. COMSYS shall direct in all Supplier Participation Agreements that IT Services Suppliers and Personnel shall assign to the State any rights they have or may obtain in all copyrightable works that they create or has created at the request or direction of the State, that IT Service Suppliers not use any Personnel to create such works for the State who does not agree beforehand, in writing, (i) that the works are to be works made for hire under federal copyright law or (ii) to assign to the State all rights the person may have or obtain in the works, and to otherwise agree to all the terms of this Article XI. COMSYS shall require that IT Service Suppliers provide COMSYS and the State with copies of all such "work for hire" and any related assignment agreements before any Personnel participates in the creation of any copyrightable work for the State.

# ARTICLE XII. LIMITED WARRANTY

12.1 COMSYS warrants that it shall provide the Vendor Management Services hereunder utilizing care and skill in accordance with customary industry standards. In the event that COMSYS materially breaches this warranty, the State shall promptly notify COMSYS in writing and shall allow COMSYS the opportunity to re-perform at COMSYS' sole cost that aspect of its Vendor Management Services which failed to meet the standard of care set forth herein. The State must make any claim for breach of this warranty by written notice to COMSYS within sixty (60) days of performance of such deficient Vendor Management Services or within thirty (30) days of the time the State became aware or reasonably should have become aware that such Vendor Management Services were deficient, whichever is later provided that any such written notice must be provided within one (1) year of the date of performance of such deficient. Vendor Management Services.

EXCEPT FOR THE EXPRESS WARRANTY SET FORTH HEREIN, COMSYS DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES ON ITS SERVICES PROVIDED HEREUNDER, INCLUDING, BUT NOT LIMITED TO, ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. COMSYS MAKES NO WARRANTIES OF ANY KIND RELATED TO SERVICES OR PRODUCTS PROVIDED BY THIRD PARTIES, INCLUDING THE IT SERVICES SUPPLIERS OR PRE-EXISTING IT SERVICES SUPPLIERS.

12.2 COMSYS warrants that it shall comply with all federal, state and local laws, rules or regulations, including but not limited to, those regarding compensation, hours of work, conditions of employment and equal opportunities for employment.

12.3 <u>Further Warranties and Assurances.</u> COMSYS further covenants that with respect to each Supplier Participation Agreement it shall require that such IT Services Supplier (including any subcontractor or consortium member thereof), with respect to itself and any Personnel providing services hereunder, expressly warrant for the benefit of the State that the services to be performed by IT Services Supplier for any State or Local Agency shall be performed in a workmanlike manner, subject to the supervision and instructions provided by the State or Local Agency, as applicable. Such Supplier Participation Agreement shall further require that the IT Services Supplier warrant that all work assigned and performed by it (or its Personnel) shall be performed substantially in accordance with the requirements of the State or Local Agency for whom such services are being performed. Each IT Services Supplier shall be further required to represent that all work assigned by a State or Local Agency through the VMS System shall be performed in a manner consistent with that level of care and skill ordinarily exercised by other providers of similar services under similar circumstances at the time services are provided.

Any other provision of this Agreement notwithstanding, the State understands that COMSYS shall have no liability to the State for any action or inaction of any IT Services Supplier or for any officers, directors, employees or agents of any IT Services Supplier (including Personnel), whether such action or inaction may constitute a breach of contract or tort related to the Supplier Participation Agreement, the IT Services Contract, or otherwise; provided that the foregoing shall not act to relieve COMSYS from liability for any damages incurred due to any action or inaction of COMSYS which may constitute a breach of this Agreement related to the VMS System or the Vendor Management Services or any tort related to the VMS System or the Vendor Management Services for which COMSYS would be otherwise responsible.

#### ARTICLE XIII. INSURANCE

13.1 COMSYS, from the time of commencement of the performance of Vendor Management Services, shall obtain and maintain at its sole cost and expense to cover COMSYS' provision of Vendor Management Services hereunder, and shall require the same of all IT Services Suppliers and Personnel through the Supplier Participation Agreements as set forth in Section 13.3 below, the following types and amounts of insurance:

- (a) Worker's compensation insurance as required by Wisconsin Statutes for all employees engaged to provide Vendor Management Services hereunder;
- (b) Commercial general liability insurance, with limits of at least one million dollars (\$1,000,000), covering bodily injury and property damages, including products liability and completed operations;
- (c) Automobile liability insurance, with limits of at least one million dollars (\$1,000,000) per occurrence combined single limit, covering owned, non-owned and hired vehicles used in connection with the Vendor Management Services hereunder

13.2 COMSYS shall provide the State with a certificate of insurance stating that such policies are in effect and that they shall not be cancelled or materially changed without providing the State with thirty (30) days prior written notice.

13.3 COMSYS shall include in all of its contracts with its subcontractors and in the Supplier Participation Agreements with IT Services Suppliers providing Personnel hereunder insurance requirements similar or greater than as set forth herein to cover services provided by such subcontractor's personnel or IT Services Supplier's Personnel. COMSYS shall require all such subcontractor and IT Services Suppliers to provide COMSYS with certificates of insurance stating that such policies are in effect and shall not be cancelled or materially changed without providing COMSYS and State with thirty (30) days prior written notice. COMSYS shall provide State with copies of such certificates of insurance upon request.

# ARTICLE XIV. INDEMNIFICATION

14.1 Infringement Indemnification, COMSYS shall indemnify, defend, and hold harmless State and its directors, officers, employees and agents (the "State Indemnified Parties") against any and all losses, liabilities, judgments, awards and costs (including reasonable legal fees and expenses) in any claim, action, suit or proceeding (individually and collectively, "Claim") arising out of an allegation that the Vendor Management Services provided by COMSYS (including the VMS System) infringes any third party's copyright, trade secrets, patent, trademark or any other intellectual property right. COMSYS shall have no obligation under this provision for any Claim if COMSYS has offered such modified or replacement technology, and the Claim or liability results from State's failure to use the modified or replacement technology. Further, COMSYS shall have no obligation under this provision for any Claims that result from: (i) use of deliverables in a combination with materials, services or products not supplied by COMSYS, if such deliverables would not have infringed the copyright or trade secret of the party bringing the Claim absent such combination; or (ii) modifications to the deliverables by any party other than COMSYS, if such deliverables would not have infringed the copyright or trade secret of the party bringing the Claim absent such modifications.

14.2 <u>Bodily Injury and Property Damage</u>. COMSYS shall indemnify, defend and hold harmless the State Indemnified Parties from and against any and all Claims relating to bodily injury or death or damage to tangible personal property to the extent arising directly out of any negligent or wrongful act or omission of COMSYS, its employees, COMSYS' or agents in the course of performing COMSYS' obligations hereunder. COMSYS shall ensure that all IT Services Suppliers provide this indemnification to the State under the Supplier Participation Agreements.

14.3 COMSYS shall only be obligated to provide indemnification under this Article XIV if the State: (a) notifies COMSYS promptly in writing of the Claim; (b) permits COMSYS sole control to defend, compromise or settle the Claim (provided COMSYS may not settle any Claim without the consent of the State Indemnified Parties where the settlement involves a remedy other than the payment of money); and (c) provides all available information, assistance and authority at COMSYS' reasonable expense to enable COMSYS to defend the Claim. The State Indemnified Parties may participate in the defense or settlement of any Claim at its own expense. Under no circumstances shall COMSYS be required to indemnify State Indemnified Parties hereunder for Claims arising out of actions or inactions of an IT Services Supplier or its Personnel.

14.4 The foregoing Section 14.1 is COMSYS' and State's sole and exclusive remedy with respect to claims of infringement of intellectual property rights of any kind.

#### ARTICLE XV. LIMITATIONS OF LIABILITY

15.1. <u>ACTUAL DAMAGES</u>. EXCEPT WITH RESPECT TO SECTIONS 14.1 AND 14.2 OF THIS AGREEMENT, COMSYS' LIABILITY FOR DAMAGES UNDER THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, SHALL BE ACTUAL DAMAGES.

15.2. <u>NO CONSEQUENTIAL DAMAGES</u>. EXCEPT AS OTHERWISE PROVIDED IN SECTION 15.1 ABOVE, IN NO EVENT SHALL COMSYS OR STATE BE LIABLE TO THE OTHER FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF PROFITS, REVENUES, DATA, USE, ANY OTHER ECONOMIC ADVANTAGE, INCURRED BY COMSYS OR STATE ARISING OUT OF OR RELATING TO THIS AGREEMENT, UNDER ANY THEORY OF LIABILITY, WHETHER IN AN ACTION IN CONTRACT, STRICT LIABILITY, TORT (INCLUDING NEGLIGENCE) OR OTHER LEGAL OR EQUITABLE THEORY, EVEN IF COMSYS OR STATE RESPECTIVELY, KNEW OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES.

15.3. <u>BASIS OF AGREEMENT</u>. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE DISCLAIMERS OF WARRANTIES IN ARTICLE XII, THE INDEMNITIES IN ARTICLE XIV, AND THE LIMITATIONS OF LIABILITY IN THIS ARTICLE XV REPRESENT THE AGREED AND BARGAINED FOR UNDERSTANDING OF THE PARTIES, AND THAT COMSYS' RATES AND STRUCTURE OF COMPENSATION FOR THE SERVICES REFLECT SUCH ALLOCATIONS OF RISK.

# ARTICLE XVI. DISPUTE RESOLUTION

The Parties shall meet and confer in good faith on all matters of common interest or all controversies, claims, or disputes ("<u>Disputes</u>") which materially affect the performance of either Party under this Agreement As soon as a Dispute is recognized by either Party, it shall communicate the substance of the Dispute to each Party's Primary Contact. Once a Dispute has been raised, the Primary Contacts shall make all reasonable efforts to reach a resolution within two (2) weeks after the Dispute has been identified and communicated. If the Dispute cannot be resolved between the Parties' respective Primary Contacts, then the Parties shall

submit such matters to their respective executive management, who shall make all reasonable efforts to reach a resolution within thirty (30) days after the Dispute has been referred to them.

#### ARTICLE XVII. NOTICE

All written notices under this Agreement shall be posted by overnight delivery with verification of delivery by nationally recognized overnight courier or personally delivered to the other Party at the address set forth below, or any other addresses as either Party may designate by written notice to the other. Any such notice shall be deemed delivered when deposited in the United States mail with postage prepaid or when personally delivered.

COMSYS:

COMSYS Information Technology Services 4400 Post Oak Parkway, #1800 Houston, TX 77027 Attention: General Counsel Phone: 713-386-1400 Fax: 713-386-1504

Copy To: COMSYS Information Technology Services, Inc. 9737 Washingtonian Blvd., #500 Gaithersburg, MD 20878 Attention: Contract Services Fax: 240-778-2777

State.

Karen Aasen, Contract Manager State of Wisconsin Department of Administration Bureau of Procurement 101 E Wilson Street, 6<sup>th</sup> Floor Madison, WI 53703

#### ARTICLE XVIII. GENERAL

18.1 <u>Assignment</u>. This Agreement may not be assigned by either Party without the prior written consent of the other Party, except that either Party may assign this Agreement to any affiliated company or any successor in interest of itself or an affiliated company.

18.2 <u>Modification</u>. This Agreement may not be modified or amended unless said modification is in writing and signed by authorized representatives of both Parties.

18.3 <u>Governing Law.</u> THIS AGREEMENT SHALL BE GOVERNED BY THE LAWS OF WISCONSIN WITHOUT REGARD TO ITS CONFLICT OF LAWS RULES. ANY LITIGATION, ARBITRATION AND MEDIATION REGARDING THIS AGREEMENT SHALL BE BROUGHT IN FEDERAL OR STATE COURTS LOCATED IN WISCONSIN.

18.4 <u>Entire Agreement</u>. This Agreement constitutes the entire Agreement between State and COMSYS with regard to the subject matter hereof, and this Agreement supersedes all prior oral or written agreements or understandings between State and COMSYS.

18.5 <u>Force Majeure</u>. Neither Party shall be considered in breach of this Agreement for its failure to perform or its delay in the performance of any obligation hereunder, except for the State's obligations to pay amounts due hereunder, if the performance of such obligation is prevented or delayed by fire, flood, explosion, war, insurrection, embargo, governmental actions or requirements, military authority, act of God, shortages in the marketplace or any other event beyond the reasonable control of that Party. COMSYS and State agree to take prompt reasonable actions to minimize the effects of any such event or circumstances.

18.6 <u>Cooperation with Other Contractors</u>. In the event that the State has entered into or enters into agreements with other contractors for additional work related to the Vendor Management Services to be rendered by COMSYS hereunder, COMSYS shall reasonably cooperate with such other contractors. COMSYS shall not commit any act that will interfere with the performance of work by any other such contractor.

# ARTICLE XIX. Special Terms and Conditions

These terms and conditions apply to COMSYS and, where applicable, to all IT Services Suppliers. It is COMSYS' responsibility to enforce these terms and conditions with IT Services Suppliers on behalf of the State.

19.1 <u>Prime Contractor.</u> COMSYS shall be responsible for the administrative management of the IT Services Suppliers and Personnel as provided in this Agreement. As such, COMSYS will require that all IT Services Suppliers must abide by all of the terms and conditions of this Agreement pertinent to them as such are contained or referenced in the Supplier Participation Agreement. COMSYS shall also be responsible for correcting any problems and resolving disputes that arise between a State or Local Agency and an IT Services Supplier relating to a Requisition or Engagement, including, but not limited to, failure of Personnel to show up for work, Personnel or IT Services Supplier cancellations, performance problems, and billing disputes.

19.2 <u>Minority Business Enterprise Participation</u>. The State is committed to the promotion of minority business in its purchasing program and a goal of placing 5% of its total purchasing dollars with certified minority businesses (MBE's) under §§15.107(2), 16.75(4), 16.75(5) and 560.036(2), Wisconsin Statutes.

The State of Wisconsin policy provides that minority-owned business enterprises certified by the Wisconsin Department of Commerce, Bureau of Minority Business Development should have the maximum opportunity to participate in the performance of its contracts.

19.3 <u>Minority Business Report</u>. COMSYS shall file a quarterly report of supplies and services purchased from Certified MBE sub-contractors in the performance of this Agreement. A list of certified minority businesses, and the services and commodities they provide is available from the Department of Administration, Office of Minority Business Programs, 608-

267-7806. The list is published on the Internet on the DOA web site. http://www.doa.state.wi.us/section.asp?linkid=1. Scroll down to Minority Business Program, and then view Report-Certified Vendors. The form for submitting this information linked here. The report shall be submitted even if there is no activity.

COMSYS shall require each IT Services Supplier to submit the report for its firm to COMSYS on a guarterly basis. COMSYS shall consolidate the report onto the required report form, identifying each IT Services Supplier and their certified MBE participation. The dollar amount identified for each MBE in the report shall be for the previous quarter and shall not be a cumulative amount. Failure of any IT Services Supplier to submit the report in a timely basis may be grounds for their removal from the VMS Program and/or termination of the Engagement or Supplier Participation Agreement.

19.4 Usage Reports COMSYS shall provide detailed electronic usage reports in MS Excel format to the Contract Manager on a monthly, guarterly and annual (coinciding with the State's fiscal year) basis for all personnel working for the State, including Contracted Personnel. The reports for the previous period are to be submitted to the Contract Manager no later than fifteen (15) days after the end of each month (or appropriate guarter). Liquidated Damages shall be assessed under Section 19.5 for any delays in providing usage reports.

The State's fiscal quarters are:

- July 1<sup>st</sup> through September
- October 1<sup>st</sup> through December 31<sup>st</sup> ×
- January 1<sup>st</sup> through March 31<sup>st</sup> April 1<sup>st</sup> through June 30th π
- z.

The reporting period shall begin on the date of implementation of the Contract. Reports shall be due on July 20<sup>th</sup> for the previous twelve (12) month period. Consistent late deliveries or non-delivery of required reports shall be considered a breach of this Contract and, at the discretion of the State, may result in cancellation of the award and from bidding on future procurements.

Usage reports (monthly, quarterly and annually-which shall be due by July 20th of each year) shall capture the details as specified in the Business Rules for each order placed, which may include those listed below.

- Vendor Full Legal Name and Address of Vendor who was awarded the . engagement
- Date of Invoice .
- Invoice Number ę
- Authorized User Purchase Order Number and Date e
- Agency / UW Campus ٠
- Contractor Level (from the rate card) .
- Full name of the Contracted Personnel ø
- Employee Company (if subcontracted or member of a consortium) •
- Number of Hours Worked for the period and cumulative
- Employee Pay Rate (Hourly), Overall Bill Rate (Hourly) ¢
- Invoiced Amount Current Month and cumulative 0
- Start date and (if applicable) end date

19.5 [Intentionally Deleted]

19.6 <u>Secure Encryption</u>. Any data transmitted over a LAN or WAN must use 128 bit encryption.

19.7 <u>Accessibility</u>. The State requires accessibility compliance with Section 508 of the Rehabilitation Act, 29 USC 794d) at the time of the Effective Date of this Agreement. (See <a href="http://www.section508.gov">www.section508.gov</a>).

19.8 <u>Browser compatibility</u>. The VMS System must continue to operate with the State's web browser(s) throughout the term of the resulting contract.

19.9 <u>Consent To Breach Not Waiver</u>. The waiver by either Party of any breach of any provision contained in this Agreement shall not be deemed to be a waiver of such provision on any subsequent breach of the same or any other provision contained in this Agreement Likewise, such a waiver shall not establish a course of performance between the Parties contradictory to the terms of this Agreement.

19.10 <u>Examination Of Records</u>. The State shall have access to and the right to examine, audit, excerpt and transcribe any directly pertinent books, documents, papers and records of COMSYS and its subcontractors, involving transactions relating to this Agreement. COMSYS shall retain such material for three (3) years following completion of the Vendor Management Services under this Agreement.

19.11 <u>Site Rules And Regulations</u>. COMSYS shall require that all IT Services Suppliers and Personnel, while on the State's premises or in the presence of State employees, comply with the State's work rules and regulations applicable to the work site.

Neither Party shall require waivers or releases of any personal rights from representatives of the other in connection with visits to its respective premises. The Parties agree that no such releases or waivers shall be pleaded by them in any action or proceeding.

19.12 <u>Travel</u>. COMSYS shall be responsible for travel to and from the main work location. Cost of any travel required and approved in writing by the State outside of the main work location shall be borne by the State or Local Agency and shall pay for approved expenses only at the rates currently in effect for State employees.

19.13 <u>Liquidated Damages</u>. The State declares, and COMSYS acknowledges, that the State may suffer damages due to lack of performance of the terms and conditions of this Agreement by COMSYS Since it is impractical and extremely difficult to fix the actual damage sustained in the event of any such nonperformance, the State and COMSYS agree that in the event of any such nonperformance, the amount of damage which will be sustained from the nonperformance shall be the following amounts.

(a) For failing to timely provide usage reports as specified in Sections 3.16 and 19.4.
 \$500 each week after the 15<sup>th</sup> of the month that a required report is late;

(b) For failing to meet any RFS response time deadline: \$400 per occurrence;

(c) For failing to ensure the timely replacement of Personnel by an IT Services Supplier: \$1000 per occurrence;

(d) For failing to timely replace COMSYS personnel providing Vendor Management Services hereunder upon request by the State: \$500 per occurrence; and/or

(e) For failure to meet any performance standard set forth in this Agreement or the Business Rules: \$500 per occurrence

Liquidated damages for the failures as set forth in this Section 19.13 shall be assessed upon the State's Contract Manager's notice in writing to COMSYS. Except in the event of a failure by COMSYS to provide usage reports as specified in Sections 3.16 and/or 19.4, the State's Contract Manager's notice shall specify in reasonable detail the alleged failure constituting nonperformance so as to allow COMSYS the opportunity to cure the nonperformance. COMSYS shall have ten (10) business days, after the notice is received, to (i) cure the nonperformance (except for a failure by COMSYS to provide usage reports as specified in Sections 3.16 and/or 19.4), (ii) to show cause to the State's Contract Manager why the assessment is in error, or (iii) to show cause that extenuating circumstances should apply. If the nonperformance is not cured, the assessment is shown to be accurate, or it has not been demonstrated that extenuating circumstances should apply, COMSYS shall issue a check to the Department of Administration in the amount of the assessment. The check shall be forwarded within thirty (30) days of the assessment or the denial of the appeal. COMSYS shall pay said amounts as liquidated damages and not as a penalty. Amounts due the State as liquidated damages may be deducted by the State from any moneys payable to COMSYS and any amount outstanding over and above the amounts deducted from invoices shall be promptly tendered by check by COMSYS to the State. The State may elect, in its sole discretion, to waive the imposition of liquidated damages on a case by case basis, but any such waiver shall not act as a waiver of any subsequent breach, whether such subsequent breach is similar or dissimilar to the breach waived. Upon the assessment of liquidated damages by the State for a third time pursuant to this Section 19.13 or upon the State's third waiver of the assessment of liquidated damages that otherwise would have been due pursuant to this Section 19.13, the State may terminate this Agreement for cause upon notification to COMSYS.

COMSYS shall not be liable for liquidated damages when delays arise out of cause beyond the reasonable control and without the fault or negligence of COMSYS. Delays due to causes of Force Majeure (which are outside of the control of both Parties and could not be avoided by exercise of due care) or due to the responsibility of the State shall extend the dates on a day for day basis; but in every case the delay must be beyond the reasonable control and without the fault or negligence of COMSYS.

19 14 <u>Records Access and Wisconsin Public Records Law</u>. Section 19.36 (3), Wisconsin Statutes, requires that "any record produced or collected under a contract entered into by" a State agency "with a person other than" that State agency must be treated as if it were a record of the agency, and is subject to disclosure under an appropriate request. Generally, "personally identifiable information" (except, in certain cases, an individual's name) is protected from disclosure. Subcontractor's records are available for inspection under this statute Accordingly, COMSYS shall notify all current and potential IT Services Suppliers through the Supplier Participation Agreement that records related to that agreement may be subject to inspection and copying, and COMSYS shall cooperate with State or Local Agencies to address such record requests.

# ARTICLE X. CONFIDENTIAL INFORMATION

20.1 "<u>Confidential Information of COMSYS</u>" means any and all information: (i) clearly marked with a "confidential" legend or other comparable legend in writing, subject to the provisions of the Wisconsin Public Records Law, Subchapter II, Chapter 19 of the Wisconsin Statutes; and/or (ii) as otherwise provided under law.

20.2 "<u>Confidential Information of the State</u>" means any "personally identifiable information" as set forth in subchapter. IV, Chapter 19 of the Wisconsin Statutes, computer programs and data as set forth in §19.36(4) of the Wisconsin Statutes, and any other record specifically exempt from disclosure under the Wisconsin Public Records Law under §19.31 of the Wisconsin Statutes.

20.3 Confidential Information shall not include information to the extent that: (a) such information is or becomes publicly available other than through any act or omission of either party in breach of this Agreement; (b) such information was received by the receiving Party, other than under an obligation of confidentiality, from a third party who had no obligation of confidentiality to the other Party; (c) such information was in the possession of the receiving Party at the time of the disclosure or was independently developed by the receiving Party; or (d) any applicable regulation, court order or other legal process requires the disclosure of such information, provided that prior to such disclosure the disclosing Party shall give notice to the other party so that the other Party may take reasonable steps to oppose or limit such disclosure, and that the disclosing Party does not disclose any more information than necessary to comply with such legal process. The burden of proof that Confidential Information falls into any one of the above exemptions shall be borne by the Party claiming such exemptions.

20.4 The Parties shall keep in confidence all of the other party's Confidential Information, and shall only use such Confidential Information as required for performance of such Party's respective duties and obligations under this Agreement, and within the limits of the Wisconsin Public Records Law shall not disclose such Confidential Information without the other Party's prior written consent. Neither Party shall disclose the other party's Confidential Information to any person except its own employees or COMSYS' employees to whom it is necessary to disclose the Confidential Information for purposes permitted under this Agreement and who have agreed to receive it under terms at least as restrictive as those set forth in this Article XX. Each Party shall take reasonable measures to maintain the confidential information, but never less than the standard of care that an ordinarily product business person would exercise to maintain the secrecy of its own confidential information. Each Party shall give the other party immediate notice of any unauthorized use or disclosure of the other Party's Confidential Information of which it becomes aware.

20.5 Upon termination of this Agreement, or sooner upon written request, each Party shall return to the other all documents, drawings, specifications, technical information, calculations or other such documents, including copies and excerpts thereof, which contain Confidential Information or certify to the other that such have been destroyed or deleted from the Party's computer system(s).

20.6 In the event of a breach or threatened breach by a party of any of the provisions of this Article XX, the non-breaching Party shall be entitled to seek an injunction restraining the

breaching Party from disclosing, in whole or in part, such Confidential Information. Nothing herein shall be construed as prohibiting the non-breaching Party from pursuing any other remedies available to them for such breach or threatened breach, including the recovery of damages from the breaching Party. The provisions of this Article XX shall survive the expiration and/or termination of this Agreement.

20.7 COMSYS will maintain (and will provide to the State upon request) relevant business and accounting records pertaining to the Vendor Management Services provided hereunder and proof of required permits and licenses, for a period of time as required by applicable law, but not for less than three (3) years following the termination or expiration of this Agreement. All accounting records will be maintained in accordance with generally accepted accounting principles.

**IN WITNESS WHEREOF**, these Parties have executed this Agreement as of the date first set forth above.

Department of Administration, on behalf of	
the State of Wisconsin:	Services, Inc.:
By. Store Vrank-Typere	By:
Printed Name: Gina Frank - Reece	Printed Name: ALBERT (KIP) WRIGHT
Title: Deputy Secretary	Title: SR. VICE PRESIDENT
Date: 1-17-06	Date: Decembere 30, 2005

#### Standard and Supplemental Terms and Conditions

NOTE: The following Standard and Supplemental Terms and Conditions were included in RFP #27702LF and, although the term "Bidders/proposers" is used frequently in each, they specifically apply to the successful Proposer, i.e. COMSYS. These documents are included in the VMS Management Services Agreement in order to record specific deletions agreed to by the Parties due to repetitious or unnecessary language. All missing numbers signify such deletions

- 1.0 SPECIFICATIONS: The specifications in this request are the minimum acceptable. When specific manufacturer and model numbers are used, they are to establish a design, type of construction, quality, functional capability and/or performance level desired. When alternates are bid/proposed, they must be identified by manufacturer, stock number, and such other information necessary to establish equivalency. The State of Wisconsin shall be the sole judge of equivalency. Bidders/proposers are cautioned to avoid bidding atternates to the specifications which may result in rejection of their bid/proposal.
- 2.0 DEVIATIONS AND EXCEPTIONS: Deviations and exceptions from original text, terms, conditions, or specifications shall be described fully, on the bidder's/proposer's letterhead, signed, and attached to the request. In the absence of such statement, the bid/proposal shall be accepted as in strict compliance with all terms, conditions, and specifications and the bidders/proposers shall be held liable.
- 3.0 QUALITY: Unless otherwise indicated in the request, all material shall be first quality. Items which are used, demonstrators, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the State of WisconsIn.
- 4.0 QUANTITIES: The quantities shown on this request are based on estimated needs. The state reserves the right to increase or decrease quantities to meet actual needs.
- 5.0 DELIVERY: Deliveries shall be F.O.B destination freight prepaid and included unless otherwise specified
- 6.0 PRICING AND DISCOUNT: The State of Wisconsin qualifies for governmental discounts and its educational institutions also qualify for educational discounts. Unit prices shall reflect these discounts.
  - 6.1 Unit prices shown on the bid/proposal or contract shall be the price per unit of sale (e.g., gal, cs., doz, ea.) as stated on the request or contract. For any given item, the quantity multiplied by the unit price shall establish the extended price; the unit price shall govern in the bid/proposal evaluation and contract administration.
  - 6.2 Prices established in continuing agreements and term contracts may be lowered due to general market conditions, but prices shall not be subject to increase for ninety (90) calendar days from the date of award. Any increase proposed shall be submitted to the contracting agency thirty (30) calendar days before the proposed effective date of the price increase, and shall be limited to fully documented cost increases to the contractor which are demonstrated to be Industry wide. The conditions under which price increases may be granted shall be expressed in bid/proposal documents and contracts or agreements.
  - 6.3 In determination of award, discounts for early payment will only be considered when all other conditions are equal and when payment terms allow at least fifteen (15) days, providing the discount

terms are deemed favorable. All payment terms must allow the option of net thirty (30)

- 7.0 UNFAIR SALES ACT: Prices quoted to the State of Wisconsin are not governed by the Unfair Sales Act
- 8.0 ACCEPTANCE-REJECTION: The State of Wisconsin reserves the right to accept or reject any or all bids/proposals, to waive any technicality in any bid/proposal submitted, and to accept any part of a bid/proposal as deemed to be in the best interests of the State of Wisconsin

Bids/proposals MUST be date and time stamped by the soliciting purchasing office on or before the date and time that the bid/proposal is due Blds/proposals date and time stamped in another office will be rejected. Receipt of a bid/proposal by the mail system does not constitute receipt of a bid/proposal by the purchasing office.

- 9.0 METHOD OF AWARD: Award shall be made to the lowest responsible, responsive bidder unless otherwise specified
- 10.0 ORDERING: Purchase orders or releases via purchasing cards shall be placed directly to the contractor by an authorized agency. No other purchase orders are authorized.
- 13.0 GUARANTEED DELIVERY: Failure of the contractor to adhere to delivery schedules as specified or to promptly replace rejected materials shall render the contractor liable for all costs in excess of the contract price when alternate procurement is necessary. Excess costs shall include the administrative costs.
- 14.0 ENTIRE AGREEMENT: These Standard Terms and Conditions shall apply to any contract or order awarded as a result of this request except where special requirements are stated elsewhere in the request; in such cases, the special requirements shall apply Further, the written

contract and/or order with referenced parts and attachments shall constitute the entire agreement and no other terms and conditions in any document, acceptance, or acknowledgment shall be effective or binding unless expressly agreed to in writing by the contracting authority

- 16.0 ANTITRUST ASSIGNMENT; The contractor and the State of Wisconsin recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the State of Wisconsin (purchaser) Therefore, the contractor hereby assigns to the State of Wisconsin any and all claims for such overcharges as to goods, materials or services purchased in connection with this contract
- 17.0 ASSIGNMENT: No right or duty in whole or in part of the contractor under this contract may be assigned or delegated without the prior written consent of the State of Wisconsin.
- 18.0 WORK CENTER CRITERIA: A work center must be certified under s. 16 752, Wis Stats, and must ensure that when engaged in the production of materials, supplies or equipment or the performance of contractual services, not less than sevenly-five percent (75%) of the total hours of direct labor are performed by severely handicapped individuals.
- 19.0 NONDISCRIMINATION / AFFIRMATIVE ACTION: In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s 51.01(5), Wis. Stats., sexual orientation as defined in s 111.32(13m), Wis Stats, or national origin This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Except with respect to sexual orientation, the contractor further agrees to take affirmative action to ensure equal employment opportunities.
  - 19.1 Contracts estimated to be over twenty-five thousand dollars (\$25,000) require the submission of a written affirmative action plan by the contractor. An exemption occurs from this requirement if the contractor has a workforce of less than twenty-five (25) employees. Within fifteen (15) working days after the contract is awarded, the contractor must submit the plan to the contracting state agency for approval. Instructions on preparing the plan and technical assistance regarding this clause are available from the contracting state agency.
  - 19.2 The contractor agrees to post in conspicuous places, available for employees and applicants for employment, a notice to be provided by the contracting state agency that sets forth the provisions of the State of Wisconsin's nondiscrimination law
  - 19.3 Failure to comply with the conditions of this clause may result in the contractor's becoming declared an "ineligible" contractor, termination of the contract, or withholding of payment.

21.0 SAFETY REQUIREMENTS: All materials, equipment, and supplies provided to the State of Wisconsin must comply fully with all safety requirements as set forth by the Wisconsin Administrative Code, the Rules of the Industrial Commission on Safety, and all applicable OSHA Standards

24.0 CANCELLATION: The State of Wisconsin reserves the right to cancel any contract in whole or in part without penalty due to non appropriation of funds or for failure of the contractor to comply with terms, conditions, and specifications of this contract

25.0 VENDOR TAX DELINQUENCY: Suppliers who have a delinquent Wisconsin tax liability may have their payments offset by the State of Wisconsin.

26.0 PUBLIC RECORDS ACCESS: It is the intention of the state to maintain an open and public process in the solicitation, submission, review, and approval of procurement activities

Bid/proposal openings are public unless otherwise specified Records may not be available for public inspection prior to Issuance of the notice of intent to award or the award of the contract

28.0 DISCLOSURE: If a state public official (s 19.42, Wis Stats), a member of a state public official's immediate family, or any organization in which a state public official or a member of the official's immediate family owns or controls a ten percent (10%) interest, is a party to this agreement, and if this agreement involves payment of more than three thousand dollars (\$3,000) within a twelve (12) month period, this contract may be voided by the state unless appropriate disclosure is made according to s 19.45(6), Wis

Stats., before signing the contract. Disclosure must be made to the State of Wisconsin Ethics Board, 44 East Mifflin Street, Suite 601, Madison, Wisconsin 53703 (Telephone 608-266-8123)

State classified and former employees and certain University of Wisconsin faculty/staff are subject to separate disclosure requirements, s 16 417, Wis Stats

- 30.0 MATERIAL SAFETY DATA SHEET: If any item(s) on an order(s) resulting from this award(s) is a hazardous chemical, as defined under 29CFR 1910 1200, provide one (1) copy of a Material Safety Data Sheet for each item with the shipped container(s) and one (1) copy with the involce(s)
- 31.0 PROMOTIONAL ADVERTISING / NEWS RELEASES: Reference to or use of the State of Wisconsin, any of its departments, agencies or other subunits, or any state official or employee for commercial promotion is prohibited. News releases pertaining to this procurement shall not be made without prior approval of the State of Wisconsin. Release of broadcast e-mails pertaining to this procurement shall not be made without prior written authorization of the contracting agency.
- 33.0 FOREIGN CORPORATION: A foreign corporation (any corporation other than a Wisconsin corporation) which becomes a party to this Agreement is required to conform to all the requirements of Chapter 180, Wis Stats, relating to a foreign corporation and must possess a certificate of authority from the Wisconsin Department of Financial Institutions, unless the corporation is transacting business in interstate commerce or is otherwise exempt from the requirement of obtaining a certificate of authority. Any foreign corporation which desires to apply for a certificate of authority should contact the Department of Financial Institutions, Division of Corporation, P. O. Box 7846, Madison, WI 53707-7846; telephone (608) 256-3590

#### Supplemental Terms and Conditions

1.7 Nondiscrimination and Affirmative Action. The Contractor shall not discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s 51.01(5). Wis Stats, sexual orientation as defined in s 111.32(13m), Wis Stats, or national origin. This provision shall include, but not be limited to employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Except with respect to sexual orientation, the Contractor shall take affirmative action to ensure equal employment opportunities.

1.7.1 Within fifteen (15) working days after a State contract is awarded, the Contractor shall submit a written Affirmative Action Plan to the Department of Administration for approval Instructions on preparing the plan and technical assistance regarding this clause are available from the Department An exemption occurs from this requirement if the Contractor has a workforce of less than twenty-five (25) employees

1.7.2 The Contractor shall post in conspicuous places, available for employees and applicants for employment, a notice to be provided by the Department of Administration that sets forth the provisions of the State of Wisconsin's nondiscrimination law

1.7.3 Failure to comply with the conditions of this clause may result in the Contractor's becoming declared "ineligible," termination of the Contract, or withholding of payment

- 3.0 DISCLOSURE OF INDEPENDENCE AND RELATIONSHIP:
  - 3.1 Prior to award of any contract, a potential contractor shall certify in writing to the procuring agency that no relationship exists between the potential contractor and the procuring or contracting agency that interferes with fair competition or is a conflict of interest, and no relationship exists between the contractor and another person or organization that constitutes a conflict of interest with respect to a state contract. The Department of Administration may waive this provision, in writing, if those activities of the potential contractor will not be adverse to the interests of the state
- 5.0 EMPLOYMENT: The contractor shall not engage the services of any person or persons now employed by the State of Wisconsin, including any department, commission or board thereof, to provide services relating to this agreement without the written consent of the employing agency of such person or persons and of the contracting agency.
- 6.0 CONFLICT OF INTEREST: Private and non-profit corporations are bound by sa. 180 0831, 180 1911(1), and 181 0831 Wis. Stats, regarding conflicts of interests by directors in the conduct of state contracts

#### STATE OF WISCONSIN PERSONAL SERVICES RIDER

**NOTE:** This Personal Services Rider was included in RFP #27702-LF and specifically applies to both the successful Proposer, i.e. COMSYS, and its IT Services Suppliers. This document is attached to the VMS Management Services Agreement in order to record specific deletions and modifications agreed to by both Parties All missing numbers signify such deletions.

These terms and conditions apply to COMSYS and all IT Services Suppliers. It is COMSYS' responsibility to enforce these terms and conditions with each of the IT Services Suppliers on behalf of the State.

1.0 ACCEPTANCE/INSPECTION: All work performed under State purchase order(s) shall be subject to inspection by the State, to the extent practicable at all times and places, including the period of design or programming, but in any event, prior to acceptance. All inspections by the State shall be performed in such a manner as not to unduly delay the work. Unsatisfactory work shall be corrected prior to acceptance. Suitable acceptance criteria shall be included in the State's order(s).

The State shall promptly notify Contractor of the results of any inspection or acceptance test it performs. If an acceptance test produces unsatisfactory results, the State shall specifically identify what acceptance criteria could not be satisfied and the particular methodology that was used to reach this conclusion.

- 4.0 AUDITED FINANCIAL STATEMENTS: Upon request by the State, Contractor shall supply copies of its audited quarterly financial statements not later than forty-five (45) days after the close of Contractor's fiscal quarters. Upon request, Contractor shall also supply the State with a copy of its year-end statement not later than ninety (90) days after its fiscal year-end.
- 5.0 KEY PERSONNEL: Contractor agrees that it will furnish the State with a means of identifying all personnel assigned to perform work under this Agreement and furnish the State with security credentials on these personnel, if requested.
- 6.0 LIABILITY FOR LOSS OF DATA: When computer services are requested, the State shall maintain adequate supporting material or copies to enable Contractor to regenerate data furnished to Contractor by the State In the event of loss of such State-supplied data due to machine failure or negligence of Contractor or its employees, Contractor's liability for such loss shall be limited to the replacement or regeneration of the lost data from the State's supporting material by the methods or means deemed most suitable by Contractor for such regeneration or replacement.

- 7.0 PERFORMANCE DOCUMENTATION: All documentation delivered hereunder shall conform to the documentation standards of the State's site. Contractor will furnish the State with documentation which will be in form and substance at least equal to comparable material generally in use in the industry.
- 8.0 RESPONSIBILITIES OF CONTRACTOR: Contractor shall:

8.1 Perform those tasks and deliver the products identified in the State's Requisition.

8.2 Comply with all security regulations in effect at the State's premises, and externally for materials belonging to the State or to the project.

8.3 Assign on a full-time basis Contractor's employees, agents or representatives to assist in fulfilling its performance under this Agreement.

8.5 Correct any errors in the work found by the State or Contractor for a period of twelve (12) months after acceptance by the State. Such corrections shall commence within forty-eight (48) hours after the State's written notification to Contractor.

#### 9.0 RESPONSIBILITIES OF THE STATE: The State shall:

9.1 Arrange for necessary cooperation by the State's officials and employees, including providing access to such records and other information needed by Contractor to carry out the work set forth in the State's order.

9.2 Appoint a Contract Manager for liaison and consultation with Contractor. The Contract Manager shall have authority to make managerial and technical decisions concerning services deliverable under this Agreement and to accept or approve Contractor's work on behalf of the State. The State's Contract Manager shall not have authority to amend or in any way modify the provisions of this Agreement.

10.0 RIGHT TO APPROVE CHANGES IN STAFF: The State or Local Agency shall have the absolute right to approve or disapprove a proposed change in the assigned staff of the IT Services Supplier. The State or Local Agency, in each instance, will be provided with a resume of the proposed substitute and an opportunity to interview that person prior to giving its approval or disapproval.

The Contract Manager shall have the absolute right to approve or disapprove a proposed change in the assigned staff of the Contractor. The Contract Manager, in each instance, shall be provided with a resume of the proposed substitute and an opportunity to interview that person prior to giving its approval or disapproval.

11.0 SOFTWARE STANDARDS: Any software delivered hereunder will be developed by Contractor to operate on the State's equipment and

software system as specified by the State or Local Agency in its Requisition or instructions to the IT Services Supplier's Personnel.

Contractor agrees that all software and other products delivered hereunder will comply with the State's applicable standards as set forth in the State site's data processing standards manual, or as otherwise specified in the State or Local Agency's Requisition. The State agrees that it will make every reasonable accommodation to its standards and procedures to enable Contractor's staff and any resulting software products to operate efficiently and effectively on the State site's computer system. In addition to, but in limitation of, the representations herein contained, Contractor agrees that all products or elements to be delivered hereunder shall comply with all applicable provisions of standards or draft standards issued by the American National Standards Institute.

#### Attachment A COMSYS' Vendor Management Services

- 1. COMSYS shall provide to State a web-based VMS System that provides the functions to:
  - a. Register IT Services Supplier Personnel
  - b Post Requisitions
  - c. Receive Candidate Offers
  - d. Analyze Candidate Offers
  - e. Accept Candidate Offers
  - f. Provide management of acceptance procedures
  - g. Process and store timesheets of IT Services Supplier Personnel
  - h Administer invoices and payments of IT Services Suppliers
  - i. Provide evaluation and closure of Requisitions
  - j. Maintain checklists of on-boarding and off-boarding requirements.
  - k. Notify responsible individuals via system work lists and/or email of actions than need to be completed.

All activities shall be conducted on the Internet through a website(s) hosted by COMSYS or a third party. The VMS System shall be secured and password-protected to permit access only to authorized functions, only by authorized State administrators, State managers, COMSYS personnel, and IT Services Supplier Personnel.

- 2. Develop an implementation plan and schedule for the VMS Program
- 3. Develop a Supplier Participation Agreement.
- 4. Develop a Requisition Form.
- 5. Develop a procedure for review of Candidate Offers to meet the State's requirements for balancing price and quality.
- Require IT Services Suppliers to have timely background checks conducted on IT Services Supplier Personnel interviewed by State in accordance with the requirements of the applicable Service Agreements, utilizing any such service as State may reasonably request.

- Develop a remedy for and participate in the resolution of IT Services Supplier disputes.
- 8. Notify successful IT Services Suppliers of IT Services Supplier Personnel selection and establish a start date.
- 9. Develop an Acceptance form to be approved by State.
- 10. Process, track and maintain consultant timesheets (automatically done in VMS System).
- 11. Issue notice to Hiring Manager to review time sheets and assess performance as a requirement before involce can be issued and payments made.
- 12. Develop the process and mechanism to allow Hiring managers to approve work that has been satisfactorily performed. This approval is required prior to invoice being generated or paid.
- 13. Invoice State for IT Services Supplier Personnel services.
- 14. Process payments by State.
- 15. Make payments to IT Services Suppliers.
- 16. Maintain at COMSYS' expense ongoing support for this Agreement, including, but not limited to: training State hiring managers in the use of the VMS System; and day to day interface with State personnel and IT Services Suppliers.
- 17. Encourage, collect, process and retain performance evaluations from the Hiring Managers or appropriate personnel from each State and Local Agency for the Personnel and the IT Services Supplier on each Engagement no later than thirty (30) days This requirement shall not be forced upon the Agencies, however, they should be encouraged and when the evaluations are submitted, they will be available as provided in SECTION 3.7
- 18. Develop performance standards, measurements and a process whereby both Comsys and the Agencies can evaluate the performance of Personnel and the IT Services Suppler
- 19. Develop a customer survey form; determine standards of measurement for assessing the performance of Comsys.

Category	Title.	Level	Final Rate \$/Hour
		Programmer-Analyst 1	\$42.00
		Programmer-Analyst 2	\$54.00
	Programmer-Analyst	Programmer-Analyst 3	\$68.00
		Programmer 1	\$40.00
		Programmer 2	\$50.00
	Programmer	Programmer 3	\$62.00
		Software Engineer 1	\$45.00
		Software Engineer 2	\$58.00
	Software Engineer	Software Engineer 3	\$70.00
	Solution Chigadee	System Analyst 1	\$45.00
		System Analyst 2	\$60.00
1. Applications	System Analyst	System Analyst 3	\$70.00
1. дряханова	Systems Engineer	Systems Engineer	\$64.00
	Systems Architect	Systems Architect	\$74.00
		Systems Administrator 1	\$50.00
2 Suptoma	Systems Administrator	Systems Administrator 2	\$70.00
2. Systems	Auministrator	Database Administrator 1	
		Database Administrator 1	\$52.00
	Database	Database Administrator 3	\$65.00
	Administrator		\$75.00
		Database Architect 1	\$54.00
		Database Architect 2	\$70.00
3. Data Management	Database Architect	Database Architect 3	\$85.00
		Technical Writer 1	\$40.00
	Technical Writer	Technical Writer 2	\$50.00
		Testing Technician 1	\$40.00
	Testing Technician	Testing Technician 2	\$56.00
		Technician 1	\$35.00
4. Technical Specialist	Technician	Technician 2	\$45.00
		Desktop Support I	\$28.00
		Desktop Support 2	\$35.00
	Desktop Support	Desktop Support 3	\$47.00
		Help Desk 1	\$28.00
		Help Desk 2	\$35.00
5. Customer Technical Support	Help Desk	Help Desk 3	\$45.00
		Project Manager 1	\$70.00
	Project Manager	Project Manager 2	\$85.00
		<b>Business Analyst/Consultant 1</b>	\$46.00
	Business Analyst /	Business Analyst/Consultant 2	\$57.00
	Consultant	Business Analyst/Consultant 3	\$68.00
		Quality Assurance Analyst 1	\$40.00
		Quality Assurance Analyst 2	\$50.00
6. Project Management	uality Assurance Analy	Quality Assurance Analyst 3	\$60.00
	Network Engineer	Network Engineer	\$75.00
		Network Analyst 1	\$ <b>43.</b> 00
	1 [	Network Analyst 2	\$52.00
	Network Analyst	Network Analyst 3	\$61.00
		Network Technician 1	\$35,00
	[	Network Technician 2	\$50.00
	Network Technician	Network Technician 3	\$58.00
		Security Analyst 1	\$50.00
		Security Analyst 2	\$60.00
1	Security Analyst	Security Analyst 3	\$80,00



U.S. ELECTION ASSISTANCE COMMISSION 1225 NEW YORK AVENUE, N.W., SUITE 1100 WASHINGTON, D.C. 20005

July 31, 2007

Mr. Kevin J. Kennedy Executive Director Wisconsin State Elections Board 17 West Main Street, Suite 310 PO Box 2973 Madison, Wisconsin 53701-2973

Dear Mr. Kennedy:

Attached is the audit resolution report of the U.S. Election Assistance Commission (EAC) regarding Help America Vote Act (HAVA) funds covered by the single audit of the State for the period ending June 30, 2006. The resolution is based upon information contained in the single audit that was performed by the by the Wisconsin Legislative Audit Bureau.

A response to the audit resolution report is not required. If you, or your staff, have any questions about the report, please contact Mr. Edgardo Cortés, EAC Election Research Specialist, at (202) 566-3126.

Thomas R. Wilkey

Attachment

cc: Inspector General



U.S. ELECTION ASSISTANCE COMMISSION 1225 New York Ave. NW - Suite 1100 Washington, DC 20005

## SINGLE AUDIT RESOLUTION REPORT WISCONSIN SINGLE AUDIT – ASSIGNMENT NO. E-SA-WI-54-07 ISSUED JULY 31, 2007

## SUMMARY OF DECISION

The Wisconsin State Elections Board (Board) properly completed the recommended actions. This report is closed.

## BACKGROUND

The U.S. Election Assistance Commission (EAC or Commission) is an independent, bipartisan agency created by Help of America Vote Act of 2002 (HAVA). It assists and guides state and local election administrators in improving the administration of elections for federal office. EAC provides assistance by dispersing federal funds to states to implement HAVA requirements, adopting the voluntary voting system guidelines, and serving as a national clearinghouse and resource of information regarding election administration. EAC is also responsible for the accreditation of testing laboratories and the certification, decertification, and recertification of voting systems.

In addition to EAC's role in distributing HAVA funds, the agency is responsible for monitoring the use of HAVA funding by the states. EAC seeks to ensure funds distributed under HAVA are being utilized for the purposes mandated by HAVA to ultimately improve the administration of Federal elections. To fulfill this responsibility, EAC determines the necessary corrective actions to resolve issues identified during Office of Inspector General (OIG) audits of state HAVA fund expenditures. The EAC Office of Inspector General (OIG) has established a regular audit program to review the use of HAVA funds by states. The OIG's audit plan and audit reports can be found at www.eac.gov. EAC also resolves issues pertaining to HAVA funds identified in audits of Federal financial assistance conducted by states under the Single Audit Act.

The Audit Follow-up Policy approved by the Commission authorizes the EAC Executive Director to issue the management decision for OIG audits of Federal funds to state and local governments, non-profit organizations, and for-profit organizations (external audits) and single audits conducted by state auditors and independent public accountants. The Executive Director has delegated the evaluation of final audit reports

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U.S. Election Assistance Commission

Audit Resolution Report

provided by the OIG and single audit reports to the EAC Programs and Services Division. The Division provides a recommended course of action to the Executive Director for resolving questioned costs, administrative deficiencies, and other issues identified during an audit. The EAC Executive Director issues a Final Audit Resolution (management decision) that addresses the findings of the audit and details corrective measures to be taken by the state.

When an audit identifies questioned costs, EAC considers not only whether the state followed proper procedures, but also whether the expenditures actually served to further the goals of HAVA. Generally, EAC has identified three methods of resolution regarding questioned costs: (1) expenditures that were identified as permissible under HAVA and Federal cost principles, but did not follow appropriate procedures do not have to be repaid; (2) expenditures that may have been permissible under HAVA but lacked adequate documentation must be repaid to the State Election Fund, which was created in accordance with HAVA section 254(b)(1); and (3) expenditures that were clearly not permissible under HAVA or federal cost principles must be repaid to the U.S. Treasury. In addition to repayment of funds, EAC may require future reporting by a state to ensure that proper internal controls and procedures have been established to prevent future problems.

States may appeal the EAC management decision. The EAC Commissioners serve as the appeal authority. A state has 30 days to appeal EAC's management decision. All appeals must be made in writing to the Chair of the Commission. The Commission will render a decision on the appeal no later than 60 days following receipt of the appeal or, in the case where additional information is needed and requested, 60 days from the date that the information is received from the state. The appeal decision is final and binding.

## AUDIT HISTORY

The Legislative Audit Bureau for the State of Wisconsin issued a Single Audit Act audit of the State for the year ending June 30, 2006, that included HAVA funds provided to the Board. The OIG transmitted the single audit to EAC on May 7, 2007 and highlighted one finding related to HAVA funds. The OIG Assignment Number used to track this audit is E-SA-WI-54-07.

## AUDIT RESOLUTION

## Finding - Inaccurate Financial Reporting

The single audit reported (finding no. WI-06-28) that the Financial Status Report filed for Federal fiscal year 2004-05 "did not include the State's share of outlays consisting of about \$180,000 in salary and fringe benefit costs for four agency staff working on HAVA-related activities." The auditors also found that reported Federal expenditures of \$6,439,789 were \$3,320 less than the total recorded in the accounting system.

U.S. Election Assistance Commission 2 Audit Resolution Report

In response to the finding, the Board said that it had filed amended reports for Federal fiscal years 2004 and 2005 and that the report for 2006 "will reflect the correcting entries.

#### **EAC Management Decision**

EAC confirmed that the Board submitted revised reports for 2004 and 2005 and a report for 2006. No further action is needed.

## STATE RIGHTS OF APPEAL

If Wisconsin believes that anything in this final management decision is an adverse action and the state does not agree, the state shall have 30 days to appeal EAC's management decision. The appeal must be made in writing to the Chairman of the EAC. Within 30 days of receiving the appeal, the Commission may hold a hearing to consider the appeal, take evidence or testimony related to the appeal, and render a decision on the appeal, if appropriate at that time. The Commission will render a final and binding decision on the appeal no later than 60 days following the receipt of the appeal or the receipt of any requested additional information. If the state does not file an appeal, this decision will become final and binding at the expiration of the appeal period.

# **Audit Resolution Report**

**Attachment 1** 



#### U.S. ELECTION ASSISTANCE COMMISSION OFFICE OF INSPECTOR GENERAL 1225 New York Ave. NW - Suite 1100 Washington, DC 20005

May 7, 2007

Memorandum

To: Thomas Wilkey Executive Director

Centie W. Cuile From: Curtis W. Crider Inspector General

Subject: Finding in the State of Wisconsin Single Audit Report, For the Year Ended June 30, 2006 (Assignment No. E-SA-WI-54-07)

The subject single audit report contains a reportable condition<sup>•</sup> (Attachment) applicable to the administration of Help America Vote Act (HAVA) funds by the Wisconsin State Elections Board. The audit was performed by Wisconsin's Legislative Audit Board, which is responsible for the report's findings.

The reportable condition and recommendations to the Election Board are summarized below and presented in further detail in the Attachment.

## **REPORTABLE CONDITION**

#### Finding No.WI-06-28: Reporting

The auditors reported that the Financial Status Report filed for Federal Fiscal Year 2004-05 "did not include the State's share of outlays consisting of about \$180,000 in salary and fringe benefit costs for four agency staff working on HAVA-related activities." The auditors also found that reported Federal expenditures of \$6,439,789 were \$3,320 less than the total recorded in the accounting system.

#### **Recommendation**

The auditors recommended that the Elections Board:

determine the exact amount of eligible state matching expenditures;

<sup>&</sup>lt;sup>\*</sup> According to the audit report, "reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of internal control over compliance that, in our judgment, could adversely affect the State of Wisconsin's ability to administer a major federal program in accordance with the applicable requirement of laws, regulations, contracts, and grants."

- follow federal reporting requirements and accurately and completely report both the State's share and the federal government's share of the Help America Vote Act Requirements Payments in the financial status reports; and
- correct and resubmit previously submitted financial status reports.

#### **Elections Board Response**

The auditors reported that the Board submitted revised status reports for Federal Fiscal Years 2003-04 and 2004-05 which documented maintenance of effort, interest earned, and state matching expenditures. The auditors also noted that the Board identified the discrepancies between the financial status report and the accounting system and will make adjustments in the financial status report to be filed for Federal Fiscal Year 2005-06.

#### OFFICE OF INSPECTOR GENERAL RECOMMENDATION TO THE ELECTION ASSISTANCE COMMISSION

We recommend that you confirm that the amended financial status reports for Federal fiscal years 2003-04, 2004-05, and 2005-06 were received and properly revised.

Please provide us a response to this memorandum by July 9, 2007. If you have any questions about this matter, please call me at (202) 566-3125.

cc: Chairwoman, U.S. Election Assistance Commission Executive Director, Wisconsin State Elections Board

Attachment

E-SA-WI-54-07 Attachment

Report 07-4 March 2007

MAR 30 2007

An Audit

## State of Wisconsin 2005-06

EIN: 396028867 000 WI FY: 6/30/2006 S 05 STATE OF WISCONSIN AUDIT PRINTED FROM PDF Box 3001 Lou 7 SFlag 50 DBKey 177867

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#### 2007-2008 Joint Legislative Audit Committee Members

Senate Members;

Jim Sullivan, Co-chairperson Julie Lassa Russell Decker Alan Lasee Robert Cowles Assembly Members:

Suzanne Jeskewitz, Co-chairperson Samantha Kerkman Kitty Rhöades David Cullen Joe Parisi

#### STATE OF WISCONSIN SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR THE YEAR ENDED JUNE 30, 2006

E-SA-WI-54-07 Attachment

		FOR THE YEAR ENDED JUNE 30	, 2006		
CFDA NUMBER	OTHER IDENTIFYING NUMBER	FEDERAL PROGRAM	STATE AGENCY OR CAMPUS	EXPENDITURES	AMOUN PROVIDED TO SUBRECIPIENTS
		INDIVIDUAL PROGRAMS AND OTHER CLUSTERS			
U.S. OFF	TICE OF PERSONNI	EL MANAGEMENT;			
27.011		Intergovernmental Personnel Act Mobility Program	UW-Whitewater	400	0
	JAL EMPLOYMENT	OPPORTUNITY COMMISSION:			
30.002		Employment Discrimination-State and Local Fair Employment Practices Agency Contracts	DWD	1,136,258	0
J.S. GEI	NERAL SERVICES	ADMINISTRATION:			
39.003		Donation of Federal Surplus Personal Property (Note 12)	DOA	0	0
39.011		Election Reform Payments	Elections Board	429,167	162,700
		TOTAL U.S. GENERAL SERVICES ADMINISTRATION	_	429,167	162,700
NATION	AL AERONAUTICS	AND SPACE ADMINISTRATION:			
		Other Federal Financial Assistance:			
N/A	43.NNH051A00P	Intergovernmental Personnel Assignment Agreement from NASA Headquarters	UW-Madison	227,632	0
N/A	43.1230253	SIRTF Glimpse Legacy Education and Public Outreach Program from Jet Propulsion Laboratory	UW-Madison	16,341	0
		Subtotal Direct Programs	—	243,973	0
		Què sur des	_		
N/A	43.1403-22791	Subgrants: Teacher Training through Research and Public	UW-Madison	11,151	0
		Understanding of Astronomy (from Brown University)	••••	,,,	-
N/A	43.NCC5-659	NASA Sharp Plus Research Apprenticeship Program (from Modern Technology Systems, Inc.)	UW-Madison	64,149	0
N/A	43.GO4-5015A	Tuning in the Sun (from Smithsonian Astrophysical Observatory)	UW-Madison	2,711	0
N/A		What's New on the Outer Planets (from Space Telescope	UW-Madison	14,950	0
N/A		Science Institute) Predoctoral Fellowship Program (from United Negro	-UW-Madison	30,922	G
		College Fund Special Programs Corporation) Subtotal Subgrants	_	123,883	0
		Subiotal Subgrants		123,063	·
		TOTAL NATIONAL AERONAUTICS AND SPACE ADMINIST		367,856	0
NATION	AL FOUNDATION C	ON THE ARTS AND THE HUMANITIES:			
45.024		Promotion of the Arts-Grants to Organizations and Individuals	UW-Madison	12,185	0
45.025		Promotion of the Arts-Partnership Agreements	Arts Board	631,489	79,700
45.025		Promotion of the Arts-Partnership Agreements	UW-Whitewater	3,200	0
45.025		Promotion of the Arts-Partnership Agreements	UW Colleges	2,911	0
		Total Federal Program 45.025		637,600	79,700

The accompanying notes are an integral part of this schedule.

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CFDA Number	Federal Program	Expenditures	State Recipient
10.500	Cooperative Extension Service	\$ 14,037,480	DATCP/UW-Madison/ UW-Platteville/ UW-River Falls/ UW-Stevens Point/ UW-Stout/UW-Extension
14,228	Community Development Block Grants/State's Program	37,706,531	Commerce/UW-Stout
20,205/23,005	Highway Planning and Construction Cluster	628,706,080	DOT
64.005	Grants to States for Construction of State Home Facilities	9,911,875	DVA
84.126	Rehabilitation Services—Vocational Rehabilitation Grants to States	40,133,381	DWD
84.365	English Language Acquisition Grants	6,026,729	DPI
84.367	Improving Teacher Quality State Grants	44,495,231	DPI/UW-Eau Claire/ UW-La Crosse/ UW-Oshkosh/ UW-Parkside/UW-River Falls/UW-Stout/ UW-Superior UW-Whitewater/ UW System Admin
90,401	Help America Vote Act Regulrements Payments	11,587,564	Elections Board
93,283	Centers for Disease Control and Prevention— Investigations and Technical Assistance	24,480,784	DHFS/UW-Madison/ UW-Milwaukee/ UW-Oshkosh/ UW-Extension
93.558	Temporary Assistance for Needy Families	258,025,873	DWD/UW-Milwaukee/ UW-Oshkosh
93.575/.596	Child Care Cluster	150,302,614	DWD/UW-Milwaukee/ UW-Extension
93.658	Foster Care-Title IV-E	77,505,407	DHFS/UW-Milwaukee
93.659	Adoption Assistance	42,552,053	DHFS
93.767	State Children's Insurance Program	88,227,049	DHFS
93.775/93.776/ 93.777/93.778	Medicaid Cluster	2,777,501,391	DHFS/DOJ
Various	Research and Development Cluster	524,857,734	UW System
Various	Student Financial Ald Cluster <sup>2</sup>	34,712,467	UW-Eau Claire
Various	Student Financial Aid Cluster <sup>2</sup>	35,020,460	UW-La Crosse
Y diluus	Student Financial Ald Cluster <sup>2</sup>	23,590,478	UW-Piatteville
Various	Studient Financial Ald Cluster	/+/	
	Student Financial Aid Cluster <sup>2</sup>	34,005,831	UW-Stevens Point

#### Major Federal Programs in FY 2005-06

Does not include the amount of loans outstanding as of June 30, 2006 (see Note 11).

<sup>2</sup> Does not include the amount of loans outstanding as of June 30, 2006 (see Notes 16 and 17).

The research and development cluster, a major program, is defined by OMB Circular A-133 as including all research activities, both basic and applied, and all development activities that are performed by a nonfederal entity. Research is defined as a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. Development is the systematic use of knowledge and understanding gained from research directed toward the

E-SA-WI-54-07 Attachment

#### STATE OF WISCONSIN SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR THE YEAR ENDED JUNE 30, 2006

		FOR THE YEAR ENDED JUNE 30	, 2006		
CFDA NUMBER	other Identifying Number	FEDERAL PROGRAM	STATE AGENCY OR CAMPUS	EXPENDITURES	AMOUNT PROVIDED TO SUBRECIPIENTS
		INDIVIDUAL PROGRAMS AND OTHER CLUSTERS			
<b>NATIONAL</b> 89.003	ARCHIVES AND	RECORDS ADMINISTRATION: National Historical Publications and Records Granis	DVA	21,854	0
89.003		National Historical Publications and Records Granis	WHS _	41,463	0
		Total Federal Program 89.003	_	63,417	
N/A	89.2005-073	Other Federal Financial Assistance: Survey of Folk Heritage Collections in Upper Midwest	UW-Madison	43,507	0
		TOTAL NATIONAL ARCHIVES AND RECORDS ADMINIST	RATION	106,924	0
U.S. ELEC	TION ASSISTAN	CE COMMISSION:			
90,401		Help America Vote Act Requirements Payments (Note 2)	Elections Board	11,587,564	0
	RTMENT OF HEA	ALTH AND HUMAN SERVICES:	5		(
93,003 93,006		Public Health and Social Services Emergency Fund Stale and Territorial and Technical Assistance Capacity	DHFS DHFS	0 68,980	(14,899) 8,927
02.041		Development Minority HIV/AIDS Demonstration Program	OUE¢	106 111	0
93.041		Special Programs for the Aging-Title VII, Chapter 3- Programs for Prevention of Elder Abuse, Neglect, and Exploitation	OHFS	106,111	0
93.042		Special Programs for the Aging-Title VII, Chapter 2-Long Term Care Ombudsman Services for Older Individuals	DHFS	225,290	203,295
93.043		Special Programs for the Aging-Title III, Part D-Disease Prevention and Health Promotion Services	DHFS	384,461	384,461
		Aging Cluster:			
93.044		Special Programs for the Aging-Title III, Part B-Grants for Supportive Services and Senior Centers	DHFS	6,515,219	6,191,524
93.045		Special Programs for the Aging-Tille III, Part C-Nutrition Services	DHFS	10,366,301	9,818,966
93.053		Nutrition Services Incentive Program	DHFS	3,093,444	3,093,444
		Total Aging Cluster	-	19,974,964	19,103,934
93.048		Special Programs for the Aging-Title IV and Title II- Discretionary Projects	DHFS	401,171	335,474
93.048		Special Programs for the Aging-Title IV and Title II- Discretionary Projects	UW-Milwaukee	125,260	0
		Total Federal Program 93.048	-	526,431	335,474
93.052		National Family Caregiver Support	DHFS	2,939,726	2,794,169
93.104		Comprehensive Community Mental Health Services for Children with Serlous Emotional Disturbances	DHFS	60	0
93.107		Model State-Supported Area Health Education Centers	U₩-Madison	433,989	361,272
93.108		Health Education Assistance Loans (Note 17)	HEAB	0	0
93.108		Health Education Assistance Loans (Note 17) Total Federal Program 93.108	UW-Madison _	0	0
93.110		Maternal and Child Health Federal Consolidated Programs	- DHFS	426,818	163,345
93.110		Maternal and Child Health Federal Consolidated Programs	UW-Madison	1,385,134	37,318
		Total Federal Program 93.110	-	1,811,952	200,663
93,113		Environmental Health	UW-Mitwaukee	228,429	0
93.116		Project Grants and Cooperative Agreements for Tuberculosis Costrol Programs	DHFS	396,466	45,209
93.127		Tuberculosis Control Programs Emergency Medical Services for Chlidren	DHFS	196,502	104,857
		<b>U J I I I I I I I I I I</b>			

The accompanying notes are an integral part of this schedule.

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INDIVIDUAL PROGRAMS AND OTHER CLUSTERS

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## 114 \* \* \* \* Schedule of Findings and Questioned Costs

#### E-SA-WI-54-07 Attachment

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Finding <u>Number</u>	CFDA <u>Number</u>	Federal Program	Elnding	Amount <u>Question</u>	ed
WI-06-17 p. 67	84.033	Federal Work-Study Program	Federal Work-Study Time Sheets	Undetern	nined
WI-06-18 p. 68	Various	Student Financial Aid Cluster	Federal Reporting	\$	0
WI-06-19 p. 70	84.038	Federal Perkins Loan Program	Forbearance Documentation		0
Wł-06-20 p. 71	Various	Student Financial Aid Cluster	Reconciliation Procedures		0
WI-06-21 p. 72	Various	Student Financial Ald Cluster	Financial Aid System Override Capability		0
University	of Wiscons	in-Stout			
Finding <u>Number</u>	CFDA <u>Number</u>	Federal Program	Finding	Amount <u>Questlor</u>	led
WI-06-22 p. 74	84.032	Federal Family Education Loans	Enrollment Reporting	\$	0
Wisconsin	Departmer	nt of Public Instruction			
Finding <u>Number</u>	CFDA <u>Number</u>	Federal Program	Finding	Amount <u>Question</u>	ed
Wi-06-25 p. 85	84.365	English Language Acquisition Grants	Discretionary Award Procedures	\$	0
	TOTAL U.S.	Department of Education			0 Indetermined
U.S. ELECTI	ON ASSISTA	NCE COMMISSION		Amount	
Wisconsin	State Elect	ions Board			
Finding <u>Number</u>	CFDA <u>Number</u>	Federal Program	Finding	Amount <u>Questior</u>	)ed
WI-06-28 p. 97	90.401	Help America Vote Act Requirements Payments	Federal Reporting	\$	0
	TOTAL U.S.	ELECTION ASSISTANCE COMMISSION		\$	0

#### University of Wisconsin-Stevens Point

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#### SUMMARY SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS BY WISCONSIN STATE AGENCY OR CAMPUS FOR THE YEAR ENDED JUNE 30, 2006

STATE AGENCY OR CAMPUS		INDIVIDUAL PROGRAMS AND OTHER CLUSTERS		RESEARCH AND DEVELOPMENT CLUSTER		STUDENT FINANCIAL AID CLUSTER	TOTAL
Department of Health and Family Services	\$	3,712,124,471	\$	0	\$	0 \$	3,712,124,471
Department of Workforce Development	•	1,496,188,595	•	ő	-	ō	1,496,188,595
Department of Transportation		723,804,117		0		0	723,804,117
Department of Public Instruction		679,184,698		0		õ	679,184,698
Department of Administration		152,920,387		õ		č	152,920,387
Department of Natural Resources		94,239,540		0		ō	94,239,540
Department of Commerce		58,600,750		õ		ŏ	58,600,750
Department of Military Affairs		37,537,437		ů ů		ă	37,537,437
Wisconsin Technical College System Board		32,671,743		ő		ŏ	32,671,743
Department of Veterans Affairs		25,408,399		0		0	25,408,399
Department of Agriculture, Trade and Consumer		20,400,000		U		Ŷ	20,400,000
Protection		13,201,191		0		0	13,201,191
Department of Justice		13,039,088		ő		ő	13,039,088
Wisconsin State Elections Board		12,142,761		ő		õ	12,142,761
Department of Corrections		3,226,977		ő		õ	3,226,977
Higher Educational Aids Board		1,667,747		ő		ő	1,667,747
Wisconsin Historical Society		924,765		õ	•	õ	924,765
Wisconsin Arts Board		631,489		ő		ŏ	631,489
Child Abuse and Neglect Prevention Board		519,025		õ		ő	519,025
Public Service Commission		286,782		ů.		õ	286,782
Educational Communications Board		206,226		0		ò	206,226
Board of Commissioners of Public Lands		40,952		ő		ŏ	40,952
Board on Aging and Long-Term Care		40,302 D		ő		0	40,332
Department of Revenue		ő		ő		0	ő
Total State Agencies	-	7.058.567.140		0	•	0	7,058,567,140
Total Otale Agencies	-	1,000,001,140	-	<u>`</u>	• •		2,000.002,140
UW-Madison		42,842,548		501,120,835		158,972,086	702,935,469
UW-Milwaukee		10,880,739		16,663,355		112,160,963	139,705,057
UW-Eau Claire		2,901,412		865,200		34,712,467	38,479,079
UW-Green Bay		1,062,052		1,058,192		19,079,199	21,199,443
UW-La Crosse		2,113,359		1, <del>5</del> 81,312		35,020,460	38,715,131
UW-Oshkosh		5,856,075		633,171		46,927,229	53,416,475
UW-Parkside		1,294,189		253,557		17,315,288	18,863,034
UW-Platteville		1,173,063		29,000		23,590,478	24,792,541
UW-River Falls		1,335,782		250,746		22,825,171	24,211,699
UW-Stevens Point		5,318,290		491,344		34,005,831	39,815,465
UW-Stout		3,749,685		230,324		38,443,063	42,423,072
UW-Superior		922,516		1,376,675		13,340,562	15,639,753
UW-Whitewater		2,625,757		235,217		40,596,925	43,457,899
UW Colleges		1,639,171		68,806		22,159,607	23,867,584
UW-Extension		13,811,361		0		. 0	13,811,361
UW System Administration		1,229,525		0		0	1,229,525
Wisconsin Humanities Council	_	598,668	-	<u>0</u>	-	0	598,668
Total UW System	_	99.354,192	-	524,857,734	-	618,949,329	1,243,161,255

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\$ 7.157.921.332 \$ 524.857.734 \$ 618.949.329 \$ 8.301.728.395 1

## Elections Board =

The Wisconsin State Elections Board is responsible for administering and enforcing the State's election and campaign finance laws. The Elections Board disbursed \$14.9 million during FY 2005-06; direct federal grants to the State financed \$12.1 million of that amount.

As part of our standard audit procedures, we reviewed the Election Board's internal controls over revenues, expenditures, and the administration of federal programs. We tested its compliance with grant requirements for the Help America Vote Act Requirements Payments (CFDA #90.401), which is a type B program. Overall, the Elections Board has appropriate procedures to administer this federal program. However, we identified one concern related to federal reporting.

## Finding WI-06-28: Federal Reporting

During FY 2005-06, the Elections Board spent \$11.6 million under the Help America Vote Act Requirements Payments program to meet the Uniform and Nondiscriminatory Elections Technology and Administration Requirements in Title III of the Help America Vote Act of 2002 (HAVA). FY 2005-06 expenditures to meet these requirements largely consisted of costs related to implementation of Wisconsin's statewide voter registration system. As required by this federal program, the Elections Board annually submits to the U.S. Election Assistance Commission a financial status report summarizing the state and federal expenditures related to this program. The Elections Board submitted its first financial status report for FFY 2003-04. We reviewed FFY 2004-05 financial status report, which the Elections Board submitted in March 2006, to ensure the reported amounts agreed with amounts recorded on WiSMART, the State's central accounting system, and other supporting documentation. We noted two concerns. First, the Elections Board failed to report the State's share of expenditures on the financial status report. The State's share of outlays during FFY 2004-05 consisted of approximately \$180,000 in salary and fringe

benefit costs for four agency staff working on HAVA-related activities. We discussed this with agency staff, who told us that the State's share of expenditures was omitted from the financial status report due to unfamiliarity with the reporting requirements.

Second, the Elections Board reported \$6,439,789 in federal expenditures on the financial status report, which was \$3,320 less that the total recorded on WiSMART. Elections Board staff were unable to explain this variance at the time of our fieldwork.

#### ☑ Recommendation

We recommend the Wisconsin State Elections Board:

- determine the exact amount of eligible state matching expenditures;
- follow federal reporting requirements and accurately and completely report both the State's share and the federal government's share of the Help America Vote-Act Requirements Payments in the financial status reports; and
- correct and resubmit previously submitted financial status reports.

#### Finding WI-06-28: Federal Reporting

Help America Vote Act Requirements Payments (CFDA #90.401)

<u>Award Number</u>	<u>Award Year</u>
N/A	N/A

Questioned Costs: None

Elections Board Response and Corrective Action Plan: On January 26, 2007, the State Elections Board submitted amended financial status reports to the U.S. Election Assistance Commission for FFYs 2003-04 and 2004-05. The amended reports documented the maintenance of effort, interest earned, and state matching expenditures for HAVA Section 251 requirements payments for those federal fiscal years. Copies of the submitted reports were provided to the auditors.

The instructions and training provided by the U.S. Election Assistance Commission prior to the completion of the original reports did not provide guidance or direction that this information was required in the reports. State Elections Board staff were tracking this information and were able to provide it with the amended reports. The expenditure match calculation was set out in the original state plan developed pursuant to HAVA Section 254.

## ELECTIONS BOARSA-W-54-9799

The auditors noted that the State Elections Board reported federal expenditures for FFY 2004-05 that was \$3,320 less than the amount reflected in WiSMART for the same period. After a thorough review of all expenditures during that period, State Elections Board staff identified the discrepancies. The FFY 2005-06 financial status report will reflect the correcting entries.

#### Wisconsin State Elections Board Summary of Findings and Questioned Costs FY 2005-06

**U.S. Election Assistance Commission** 

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Finding Number	CFDA <u>Number</u>	<u>Federal Program</u>	Finding	Amount <u>Questi</u> qi	
WI-06-28	<b>90,40</b> 1	Help America Vote Act Requirements Payments	Federal Reporting	\$	0

Inquiries regarding resolution of findings and questioned costs should be directed to the agency contact person listed in Appendix 2 of this report.

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#### STATE INVESTMENT FUND EARNINGS FOR THE MONTH JULY, 2007

#### INTEREST BEARING SECURITIES:

8810 INTEREST EARNED 8811 ADD: DISCOUNT AMORTIZATION	\$12,060,842.32 18,552,470.13
EARNINGS FROM INTEREST BEARING SECURITIES	\$30,613,312.45
OTHER ITEMS:	
8814 GAIN/(LOSS) ON BOND SALES 8877 INVESTMENT BOARD EXPENSE 8877 ELECTRONIC SERVICES 8877 CUSTODIAL BANK CHARGES 8877 LEGAL AND CONSULTING 8877 BANK CHARGES	\$194.45 (\$115,000.00) (20,000.00) (7,700.00) (1,000.00) (388.43) 
MONTHLY EARNINGS	\$30,469,418.47
ADJUSTED AVERAGE DAILY SHARES BALANCE	\$6,830,236,884.01
MONTHLY RATE OF RETURN	0.4460961%
ANNUALIZED RATE OF RETURN 303/31	0.4024210%

PREPARED BY: STATE CONTROLLER'S OFFICE AUGUST 02, 2007

#### ANNOUNCEMENT FY08 Rates



Revised: 07/1/2007

All DET and Publishing and Distribution rates have been consolidated into this single rate sheet. Rate changes are included for comparison purposes. As new services are added, rates will be communicated and added to this list. All rates are for strategic technologies. Transitional or sunset technologies may increase the monthly rate. See your CSM for more information.

## **Information Technology Services**

Data Services	Rates	Change
Data Storage		1
Mainframe Service		
Primary (non-archived) storage/GB per month	\$62.09	-20%
Archived storage/GB per month	\$12,24	-20%
Recalls/GB	\$6,21	-20%
Tape storage/GB per month	\$1.36	-20%
Distributed systems		
Primary Storage/G8 per month	\$0.58	NEW
Mirrored Storage/GB per month	\$0.47	NEW
Backup Storage/GB per month	\$0.47	NEW
Document Imaging		
Data storage, MB/day	\$0.0001803	0%
Document storage/day	\$0.0000024	0%
User license fee	Pass through cost	0%
Online Report Distribution		
Report creation fee/1,000 lines of report content	\$0.084	-30%
File and Print Services		
Dedicated Servers – Base/Silver/Gold per month	\$725/\$870/\$1088	NEW
Shared Servers – Base/Silver/Gold per month	\$218/\$262/\$327	NEW
Remote Dedicated Servers - Base/Silver/Gold per month	\$906/\$1087/\$1359	NEW
File Caching Appliances per month	\$181	NEW
Remote Print Appliances per month	\$116	NEW
Hosting Services	Rates	Change
Application Hosting		
Mainframe Service		
Online System Rate (CICS, DB2, IMS, IDMS & File Handler)	\$0.134/second	-30%
Batch Prime Rate (7:00 AM to 5:00 PM Monday through Friday)	\$0.101/second	-30%
Batch Non-Prime Rate (All other times)	\$0.068/second	-30%
Batch Weekend (Midnight Friday to midnight Sunday and Holiday Rate)	\$0.054/second	-30%
Premium Rate (on demand) Note: The current CPU factor is 10.73 for all LPARs.	\$0.118/second	-30%
Application Hosting Distributed Service Production Env.	ironment	
Static Web Hosting Dedicated Server (no database) – Base/Silver/Gold per month	\$818/\$982/\$1227	NEW
Static Web Hosting Shared Server (no database) – Base/Silver/Gold per month	\$65/\$78/\$98	NEW
Wish based Heating or Client Seguer Dadicated Server	i	

Base/Silver/Gold per month
EFFECTIVE: July 1, 2007

Web-based Hosting or Client Server Dedicated Server -

DESTROY DATE: June 30, 2008

NEW

\$950/\$1140/\$1425



## ANNOUNCEMENT

FY08 Rates

Revised: 07/1/2007

Web-based Hosting or Client Server Shared Server - Base/Silver/Gold per month	<b>\$1</b> 44/ <b>\$</b> 173/ <b>\$</b> 216	NEW
Application Hosting User Acceptance Environment – (Re	auired)	
Static Web Hosting Dedicated Server (no database) -	· · · · · · · · · · · · · · · · · · ·	
Base/Silver/Gold per month	\$818/\$982/\$1227	NEW
Static Web Hosting Shared Server (no database) – Base/Silver/Gold per month	\$65/\$78/\$98	NEW
Web-based Hosting or Client Server <i>Dedicated</i> Server – Base/Silver/Gold per month	\$950/\$1140/\$1425	NEW
Web-based Hosting or Client Server Shared Server – Base/Silver/Gold per month	\$144/\$173/\$216	NEW
Application Hosting Development Environment		
Application Hosting Olstributed Dedicated Server - Base/Silver/Gold per month	\$647/\$776/\$971	NEW
Application Hosting Distributed Shared Server – Base/Silver/Gold per month	\$26/\$31/\$39	NEW
Database Hosting		
Mainframe Systems		
Online system/sec.	\$0.134	-30%
CPU batch prime rate/sec.	\$0.101	-30%
Database Hosting Distributed Service Production Environ	iment	
Oracle Dedicated Servers - Base/Silver/Gold per month	\$2498/\$2997/\$3747	NEW
Oracle Shared Servers- Base/Silver/Gold per database per month	\$300/\$360/\$450	NEW
Non Oracle Dedicated Servers - Base/Silver/Gold per month	\$1665/\$1998/\$2498	NEW
Non Oracle Shared Servers- Base/Silver/Gold per database per month	\$200/\$240/\$300	NEW
Database Hosting User Acceptance Environment – (Requ	uired)	
Oracle Dedicated Servers - Base/Silver/Gold per month	\$2498/\$2997/\$3747	NEW
Oracle Shared Servers - Base/Silver/Gold per database per month	\$300/\$360/\$450	NEW
Non Oracle Dedicated Servers - Base/Silver/Gold per month	\$1665/\$1998/\$2498	NEW
Non Oracle Shared Servers- Base/Silver/Gold per Inditat	\$200/\$240/\$300	NEW
	4200/4210/4500	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Database Hosting Development Environment		-
Oracle Dedicated Servers - Base/Silver per month	\$1249/\$1499	NEW
Oracle Shared Servers- Base/Silver per database per month	\$150/\$180	NEW
Non Oracle Dedicated Servers - Base/Silver per month	\$833/\$999	NEW
Non Oracle Shared Servers- Base/Silver per database per month	\$100/\$120	NEW
Citrix Hosting Environment		
Citrix per User cost per month	\$57	NEW
RSA Security per User cost per month	\$6	NEW
Citrix Client Access License (CAL) – per User one time fee	\$53	NEW
Application installation - one time set up fee	\$150	NEW
Application installation one diffe set up rec		
Collocation Hosting Service      Initial cost for setting up the enclosure, switch and router – one time     fee	\$900	NEW
Collocation Hosting Service Initial cost for setting up the enclosure, switch and router – one time	\$900 \$528	NEW



## ANNOUNCEMENT

FY08 Rates

Revised: 07/1/2007

Mail Services	Rates	Change
E-Mail		
Mailbox size		
0 to less than 5 MB	\$1.12	0%
5 MB to 100 MB	\$3.36	0%
101 MB to 200 MB	\$6.72	0%
201 MB to 500 MB	\$11.19	0%
501 MB to 1 GB	\$16.79	0%
More than 1 GB to 2 GB	\$23.50	0%
More than 2 GB	\$31.34	0%
Mail Distribution and E-Routing		
fetering	15.5%	0%
Presorting	-	
First class letter mail	\$0.044/piece	2%
Standard class letter mail (includes vendor fee)	\$0.044/piece	2%
Hand sorted flats rate	\$0.067/plece	0%
Auto sorted flats rate	\$0.244/plece	NEW
Note: Rates are adjusted based on increases to vendor contract which may be adjusted because of USPS postage increases, nserting		
Basic setup for cut sheet or continuous feed. Includes setup of one envelope station	\$30.00/job	0%
Additional insert station setup. Preparing first and additional insert stations. Rate is for each additional station setup.	\$20.00 flat rate	0%
Standard service (e.g., folding and inserting a single, 8.5x11, plain cut sheet or read-marked document into a standard envelope). Includes one- and two-ounce metering, if needed.)	\$30.50/1,000 envelopes (minimum of 1,000)	0%
Additional Inserts	\$0.30/1,000 envelopes (minimum of 1,000)	0%
Enterprise standard envelopes – ZY101 & ZY107 (Return Service Requested endorsement) Note: 5% material handling fee	DET cost + 5%/1,000 envelopes (mlnimum 1,000)	0%
Bulk purchasing of Enterprise standard envelopes	DET cost + 13%/1,000 envelopes (minimum 1,000)	0%
Custom double window 4" x 9" double-window check envelopes— ZY102 & ZY105 (Return Service Requested endorsement) Note: 5% material handling fee (New)	DET cost + 5%/1,000 envelopes (minimum 1,000)	0%
Bulk purchasing of custom double-window check envelope	DET cost + 13%/1000 envelopes (minimum 1,000)	0%
<ul> <li>Notes:</li> <li>Envelopes for inserting at DET are pass-through rates + 5%</li> <li>Material handling charge for bulk purchase of paper goods: 13%</li> <li>Custom processing of inserting output is charged at handwork rates.</li> </ul>		
E-Routing	\$0,10 per match	0%
Ink jet labeling—file processing File processed against National Address Database to Identify all deliverable addresses and assign bar codes. Sorts the address file for presort arrangement according to current USPS requirements obtaining the best postage discounts possible per piece. Create and export custom data file.	\$10.00/1,000 records (minimum of 5,000)	0%
Basic setup	\$11.00/list (minimum of \$11.00)	0%
Ink jet labels onto #10 envelopes	\$20.85/1,000 labels (minimum of 1,000)	0%
Ink jet labels onto letter size pieces, flat size publications or envelopes, preparing for post office, if required. Note: Custom mail preparation billed at handwork rates.	\$25.75/1,000 labels (minimum of 1,000)	0%



## ANNOUNCEMENT

FY08 Rates

Revised: 07/1/2007

Basic setup (tabbing setup is charged only when tabbing is done	\$11.00/group	-
without labeling services)	(minimum of \$11.00)	0%
White and opaque tabs, either one or two per mail piece	\$8.00/1,000 tabs	0%
	(minimum of 1,000)	0/8
Handwork	4E 00/0 1 hour	-
Sorting, inserting, wrapping, etc. Includes messenger service and overtime. Worked with normal priority.	\$5.00/0.1 hour (minimum of \$5.00)	0%
Multimedia Services	Rates	Change
Video Services		
Compressed video conferencing (State Telecommunications System)		
In-state on-net @ 112-336 Kbps	\$6.50/hour	0%
In-state off-net @ 112-336 Kbps	\$10.00/hour	0%
Interstate @ 112-336 Kbps	\$14.00/hour	0%
BadgerNet Converged Network video conferencing		
Network video/month @ 384 Kbps	\$750	0%
Network video/month @ 6 Mbps	\$3,240	0%
Note: Rates vary, based on bandwidth and type and amount of	• •	
equipment,		
Mediasite Services		
Base Charges		
\$75.00 per hour X 2 staff to do a webcast	\$150 per hour	0%
Setup and breakdown of equipment	\$300 per event	0%
Server, hardware & software licenses technical support; event	\$155 per event	0%
coordination	\$100 per event	0.00
Additional Charges		-
Customized banner for presentation (optional)	\$25 per event	0%
Live broadcast (optional)	\$50 per event	0%
Any required travel, hotel, meal costs are paid by the customer.	variable	0%
Note: Minimum charge for a Mediasite event is \$605.		
Publishing Services		
Mainframe printing/page	la sat	
Impact, 1–10 pages	\$3.60/report	+3%
Impact, 10+ pages	\$0.26/page	+4%
Laser, 1–10 pages	\$2.60/report \$0.040/page	+4%
		+5%
Laser, 10+ pages	poro tor page	
Laser, 10+ pages Network publishing		0%
Laser, 10+ pages Network publishing Impression simplex	\$0.029/impression	0%
Laser, 10+ pages Network publishing Impression simplex Impression side 2	\$0.029/impression \$0.027/impression	0%
Laser, 10+ pages Network publishing Impression simplex Impression side 2 Impression, 11 x 17 simplex	\$0.029/impression \$0.027/impression \$0.044/impression	0% NEW
Laser, 10+ pages Network publishing Impression simplex Impression, side 2 Impression, 11 x 17 simplex Impression, 11 x 17 side 2	\$0.029/impression \$0.027/impression	0%
Laser, 10+ pages Network publishing Impression simplex Impression, side 2 Impression, 11 x 17 simplex Impression, 11 x 17 side 2 Note: The impression charge does not include paper, which is billed	\$0.029/impression \$0.027/impression \$0.044/impression	0% NEW
Laser, 10+ pages Network publishing Impression simplex Impression, side 2 Impression, 11 x 17 simplex Impression, 11 x 17 side 2 Note: The impression charge does not include paper, which is billed separately based on current market costs and a 13% handling charge.	\$0.029/impression \$0.027/impression \$0.044/impression	0% NEW
Laser, 10+ pages Network publishing Impression simplex Impression side 2 Impression, 11 x 17 simplex Impression, 11 x 17 side 2 Note: The impression charge does not include paper, which is billed separately based on current market costs and a 13% handling charge. Graphic design and pre-press	\$0.029/impression \$0.027/impression \$0.044/impression \$0.041/impression	0% NEW NEW
Laser, 10+ pages Network publishing Impression simplex Impression side 2 Impression, 11 x 17 simplex Impression, 11 x 17 side 2 Note: The impression charge does not include paper, which is billed separately based on current market costs and a 13% handling charge. Graphic design and pre-press	\$0.029/impression \$0.027/impression \$0.044/impression \$0.041/impression	0% NEW NEW
Laser, 10+ pages Network publishing Impression simplex Impression side 2 Impression, 11 x 17 simplex Impression, 11 x 17 simplex Impression, 11 x 17 side 2 Note: The impression charge does not include paper, which is billed separately based on current market costs and a 13% handling charge. Graphic design and pre-press Color printing	\$0.029/impression \$0.027/impression \$0.044/impression \$0.041/impression \$75.00/hour	0% NEW NEW
Laser, 10+ pages Network publishing Impression simplex Impression side 2 Impression, 11 x 17 simplex Impression, 11 x 17 simplex Impression, 11 x 17 side 2 Note: The impression charge does not include paper, which is billed separately based on current market costs and a 13% handling charge. Graphic design and pre-press Color printing 1–500 copies	\$0.029/impression \$0.027/impression \$0.044/impression \$0.041/impression \$75.00/hour \$0.50/copy + paper \$0.45/copy + paper	0% NEW NEW 0%
Laser, 10+ pages         Network publishing         Impression simplex         Impression side 2         Impression, 11 x 17 simplex         Impressi	\$0.029/impression \$0.027/impression \$0.044/impression \$0.041/impression \$75.00/hour \$0.50/copy + paper \$0.45/copy + paper \$0.40/copy + paper	0% NEW NEW 0% 0%
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