TECHNOLOGY SOLUTIONS TO ADVANCE MILITARY & OVERSEAS VOTING

CSG OVERSEAS VOTING INITIATIVE
TECHNOLOGY WORKING GROUP
NASED - FEBRUARY 17, 2017
THE COUNCIL OF STATE GOVERNMENTS

OVERSEAS VOTING INITIATIVE

OVERVIEW OF CSG OVERSEAS VOTING INITIATIVE & THE TECHNOLOGY WORKING GROUP

MARCI ANDINO
EXECUTIVE DIRECTOR
SOUTH CAROLINA STATE ELECTION COMMISSION
The Overseas Voting Initiative (OVI) is a four-year cooperative agreement between The Council of State Governments and the U.S. Department of Defense’s Federal Voting Assistance Program (FVAP).

The OVI is charged with developing targeted and actionable improvements to the voting process for Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) citizens.

UOCAVA citizens face unique barriers to participation due to:
- Mobile jobs, and
- time required to transmit ballots overseas and back.

Differences in election laws, rules and practices across the 50 states, the District of Columbia and the four U.S. territories make the UOCAVA process complicated to explain to voters.
One of the many activities undertaken since the OVI was established in 2013 was the formation of the OVI Technology Working Group:

<table>
<thead>
<tr>
<th>Member</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marci Andino</td>
<td>State of South Carolina</td>
</tr>
<tr>
<td>Lori Augino</td>
<td>State of Washington</td>
</tr>
<tr>
<td>Thomas Connolly</td>
<td>State of New York</td>
</tr>
<tr>
<td>Robert Giles</td>
<td>State of New Jersey</td>
</tr>
<tr>
<td>Neal Kelley</td>
<td>Orange County, California</td>
</tr>
<tr>
<td>Paul Lux</td>
<td>Okaloosa County, Florida</td>
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<tr>
<td>Amber McReynolds</td>
<td>City and County of Denver, Colorado</td>
</tr>
<tr>
<td>Donald Palmer</td>
<td>Bipartisan Policy Center (aux member)</td>
</tr>
<tr>
<td>Stan Stanart</td>
<td>Harris County, Texas</td>
</tr>
<tr>
<td>Justus Wendland</td>
<td>State of Nevada</td>
</tr>
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</table>

Additionally, the OVI has Policy and EAVS Section B Working Groups in which state and local election officials also participate.
TECHNOLOGY WORKING GROUP OVERVIEW

- Comprised of state and local election officials from across the United States.
- FVAP was interested in exploring how to improve the electronic blank ballot delivery process required by the Military and Overseas Voter Empowerment (MOVE) Act.
- The OVI Technology Working Group formed three subgroups to address issues associated with blank ballot delivery:
  - Ballot duplication for ballots that are damaged or not machine readable
  - Common Access Cards, or CACs, and the use of DoD-authorized digital signatures for authentication
  - Data standardization for UOCAVA-related election data and how these data can be used to improve the services offered to UOCAVA citizens.
THE COUNCIL OF STATE GOVERNMENTS OVERSEAS VOTING INITIATIVE APPROACH TO WORKING GROUP COLLABORATION

• Bipartisan effort of elected and appointed officials from across the United States.

• The group’s focus is on addressing issues with UOCAVA participation.

• The final work product represents a nonpartisan, consensus approach to addressing the issues.

• This work effort should be viewed as the collaborative work of the committee.

• This work product does not represent the positions or beliefs of any individual working group member.
THE COUNCIL OF STATE GOVERNMENTS
OVERSEAS VOTING INITIATIVE

UNREADABLE/DAMAGED
BALLOT DUPLICATION

ROBERT GILES
DIRECTOR OF ELECTIONS
NEW JERSEY DEPARTMENT OF STATE
UNREADABLE/DAMAGED BALLOT DUPLICATION

Subgroup Members:

- **Robert Giles** - Director of Elections, New Jersey Department of State (lead)

- **Marci Andino** - Executive Director, South Carolina State Election Commission

- **Paul Lux** - Supervisor of Elections, Okaloosa County, Florida
Framing the Issue: Unreadable/Damaged Ballot Duplication

- Voters who cast ballots in person, either early or on Election Day, are afforded the opportunity to correct mistakes on their ballots before they leave the polling place. Voters who return their ballots by mail are not provided the same opportunity.

- Military and Overseas Voters may receive ballots electronically that, when returned, are unreadable by vote tabulation equipment and must be duplicated by election officials.

- Any ballot returned by mail may come back to a local election jurisdiction in various conditions.

- The number of ballots that require duplication is extremely small. Orange County, CA duplicated 13,889 ballots out of 1.3 million cast. Okaloosa County, FL duplicated 2,142 ballots out of 102,675 cast. Between 1-2% of total ballots counted.
GOALS: UNREADABLE/DAMAGED BALLOT DUPLICATION

• Understand how unreadable/damaged ballots are currently being duplicated to be processed by tabulation systems.

• Compile a list of the types of problems or issues that result in the need for ballot duplication.

• Meet with technology providers and learn what technologies are available to jurisdictions to automate aspects of the process.

• Develop a set of recommendations/best practices.
### OFFICIAL PRIMARY BALLOT

#### REPUBLICAN PARTY

OKALOOSA COUNTY, FLORIDA

AUGUST 26, 2014

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**REPRESENTATIVE IN CONGRESS**

**DISTRICT 1**

(Vote for One)

- [ ] John E. Krause  
- [ ] Jeff Miller  

**GOVERNOR & LIEUTENANT GOVERNOR**

(Vote for One)

- [ ] Yinka Abosega Adesina  
  Not Yet Designated  
- [ ] Elizabeth Cuebas-Neunder  
  Not Yet Designated  
- [ ] Rick Scott  
  Not Yet Designated  

**STATE REPRESENTATIVE**

**DISTRICT 3**

(Vote for One)

- [ ] Doug Broxson  
- [ ] Jamie Smith  

**CLERK OF THE CIRCUIT COURT & COMPTROLLER**

Universal Primary Contest  
(Vote for One)

- [ ] Charles E. Baugh Jr.  
- [ ] J.D. Peacock  
- [ ] Dan Spence  

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**COUNTY COMMISSIONER**

**DISTRICT 4**

Universal Primary Contest  
(Vote for One)

- [ ] Don R. Amund  
- [ ] Troy Goodwin  
- [ ] Henry Kealey  

**CIRCUIT JUDGE**

**1ST JUDICIAL CIRCUIT, GROUP 22**

(Vote for One)

- [ ] Michelle Inere  
- [ ] Jennie Kinsey  

**SCHOOL BOARD MEMBER**

**DISTRICT 1**

(Vote for One)

- [ ] Cindy Frakes  
- [ ] Lamar White  

**SCHOOL BOARD MEMBER**

**DISTRICT 3**

(Vote for One)

- [ ] C. W. Soldier Hyden  
- [ ] Joe Slusser  
- [ ] Rodney L. Walker  

**SCHOOL BOARD MEMBER**

**DISTRICT 5**

(Vote for One)

- [ ] David E. Scholl  
- [ ] Melissa Thrush  

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**VOTE BOTH SIDES OF BALLOT**

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*Defective Card*
<table>
<thead>
<tr>
<th>OFFICIAL GENERAL ELECTION BALLOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>OKALOOSA COUNTY, FLORIDA</td>
</tr>
<tr>
<td>NOVEMBER 4, 2014</td>
</tr>
</tbody>
</table>

**TO VOTE, COMPLETELY FILL IN THE OVAL NEXT TO YOUR CHOICE.**

Use only a dark pen or pencil. If you make a mistake, don't hesitate to ask for a new ballot.

1. If you erase or make other marks, your vote may not count.
2. To vote for a candidate whose name is not printed on the ballot, fill in the oval, and write in the candidate's name on the blank line provided for a write-in candidate.

### REPRESENTATIVE IN CONGRESS
**DISTRICT 1 (Vote for One)**
- [ ] Jeff Miller
- [ ] Jim Bryan
- [X] Mark Warchen

### COMMISSIONER OF AGRICULTURE
**(Vote for One)**
- [ ] Adam Putnam
- [X] Thaddeus Thad Hamilton
- [ ] Write-in

### DISTRICT COURT OF APPEAL
**SHALL JUDGE ROBERT T. BEATON OF THE 1ST DISTRICT COURT OF APPEAL BE RETAINED IN OFFICE?**
- [X] YES
- [ ] NO

### GOVERNOR & LIEUTENANT GOVERNOR
**(Vote for One)**
- [ ] Rick Scott
- [ ] Carlos Lopez-Cantera
- [X] Charlie Crist
- [ ] Annette Taddeo
- [ ] Adrian Wills
- [ ] Greg Roe
- [ ] Farid Khavari
- [ ] Lorenzo A. Jones
- [ ] Glenn Burkett
- [ ] Jose Augusto Matos
- [ ] Write-in

### DISTRICT COURT OF APPEAL
**SHALL JUDGE JOSEPH LEOUSI, JR. OF THE 1ST DISTRICT COURT OF APPEAL BE RETAINED IN OFFICE?**
- [X] YES
- [ ] NO

### SCHOOL BOARD MEMBER
**DISTRICT 3 (Vote for One)**
- [ ] Joe Slusser
- [ ] Rodney L. Walker

### OCEAN CITY-WRIGHT FIRE DISTRICT
**FIRE COMMISSIONER GROUP 1 (Vote for One)**
- [ ] Mark Baugh
- [ ] Ron J. Booman

### ATTORNEY GENERAL
**(Vote for One)**
- [X] Pam Bondi
- [ ] George Sheldon
- [ ] Bill Wolfsifer

### DISTRICT COURT OF APPEAL
**SHALL JUDGE SCOTT MAKAR OF THE 1ST DISTRICT COURT OF APPEAL BE RETAINED IN OFFICE?**
- [X] YES
- [ ] NO

### CHIEF FINANCIAL OFFICER
**(Vote for One)**
- [ ] Jeff Atwater
- [ ] William "Will" Rahn
- [X] Fred Rahn

### DISTRICT COURT OF APPEAL
**SHALL JUDGE TIM OTTERSWORTH OF THE 1ST DISTRICT COURT OF APPEAL BE RETAINED IN OFFICE?**
- [X] YES
- [ ] NO

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 unresolved issue: Defective Cards
### Official General Election Ballot

**Ocala County, Florida**

**November 4, 2020**

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#### Instructions

**To Vote, Completely Fill in the Oval Next to Your Choice.**

*Use only a dark pen or pencil. If you make a mistake, don’t hesitate to ask for a new ballot. If you erase or make other marks, your vote may not count.*

To vote for a candidate whose name is shaded in the oval, fill in the oval and write in the candidate name on the blank line provided for a write-in candidate.

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#### Representative in Congress

**District 1**

<table>
<thead>
<tr>
<th>Name</th>
<th>Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeff Miller</td>
<td>REP</td>
</tr>
<tr>
<td>[Other names]</td>
<td>[Parties]</td>
</tr>
</tbody>
</table>

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#### Commissioner of Agriculture

<table>
<thead>
<tr>
<th>Name</th>
<th>Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Names]</td>
<td>[Parties]</td>
</tr>
</tbody>
</table>

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#### District Court of Appeal

**Shall Judge Robert T. Benton of the 1st District Court of Appeals be retained in office?**

- **YES**
- **NO**

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#### District Court of Appeal

**Shall Judge Joseph Lewis, Jr. of the 1st District Court of Appeals be retained in office?**

- **YES**
- **NO**

---

#### District Court of Appeal

**Shall Judge Bill Rankin of the 1st District Court of Appeals be retained in office?**

- **YES**
- **NO**

---

#### District Court of Appeal

**Shall Judge Thaddeus Thaddeus D. Roberts of the 1st District Court of Appeals be retained in office?**

- **YES**
- **NO**

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#### School Board Member

**District 3**

<table>
<thead>
<tr>
<th>Name</th>
<th>Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Names]</td>
<td>[Parties]</td>
</tr>
</tbody>
</table>

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#### Office of Attorney General

**Pam Bondi**

- **REP**

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#### Office of Chief Financial Officer

**Jeff Ashby**

- **REP**

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#### Office of Governor & Lieutenant Governor

**Rick Scott**

- **REP**

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#### Other names and parties

- [List of other candidates and parties]
Dear Postal Customer:

We sincerely regret the damage to your package during handling by the Postal Service. To help reduce the number of damaged or not-in-consumable items, we realize that your mail is important to you and that you have every right to expect it to be delivered in good condition.

Although every effort is made to prevent damage to the mail, occasionally this will occur because of the great volume handled and the rapid processing methods which must be employed to assure the most expeditious distribution possible.

We hope you understand. We assure you that we are constantly striving to improve our processing methods in order that even a rare occurrence may be eliminated.

Please accept our apologies.

Sincerely,

Your Postmaster
**BALLOT VARIABLES**

- **Paper Stock Quality and Weight** – this helps the scanner check and make sure it is only reading one ballot at a time. If the paper weight is too thin or thick, it will cause an error because the scanner is not sure if it is processing only one ballot.

- **Size** – the size of the ballot must match expectations so the scanner ensures it is reading the full length of the ballot.

- **Orientation** – the scanner is expecting the ballot to contain certain markings that help it determine the ballot style and where to read the selections. If the ballot orientation is changed from portrait to landscape, the scanner will not find the timing marks and not be able to understand the ballot.

- **Compression** – the scanner is programmed to expect a certain number of timing mark rows and columns per inch. Therefore, if the ballot is significantly compressed or expanded, it will not be able to read the timing marks.
This image shows the timing marks in black as they appear down the side and across the top of the ballot. The blue and purple lines depict the scanning grid, which is used by the scanner to detect selections.
UNREADABLE/DAMAGED BALLOT DUPLICATION

Recommendation:

1. State and local jurisdictions should select a ballot duplication process for unreadable and damaged ballots that is appropriate for the number of paper ballots they process.
UNREADABLE/DAMAGED BALLOT DUPLICATION

Recommendation:

2. Regardless of whether a jurisdiction uses a manual or an electronic ballot duplication process for unreadable and damaged ballots, there should be clear procedures employed that ensure auditability.
UNREADABLE/DAMAGED BALLOT DUPLICATION

Recommendation:

3. Technologies for ballot duplication of unreadable and damaged ballots should be easy to use and promote transparency not only for election officials, but for external observers as well.
The New Jersey Division of Elections conducted a research project funded by the Federal Voting Assistance Program’s (FVAP) Electronic Absentee System for Elections (EASE) grant.

The purpose of the research project was to explore the development of an electronic ballot duplication system for absentee ballots received from military and overseas voters.

The project’s objective was to evaluate a technology approach referred to as “PDF scrapping” and determine if it was a viable approach to the automated duplication of ballots. If possible, this approach was hypothesized to be an alternative and cost effective solution. PDF scrapping refers to an approach involving direct digital image processing of the ballot as opposed to the processing of barcodes or other encoded images for the duplication logic.
RESEARCH PROJECT FINDINGS

• The New Jersey Electronic Ballot Duplication Research Project achieved important steps toward a full-scale automated ballot duplication solution that does not rely on barcodes.

• The project evaluated a new technology to read and duplicate ballots and found that it has great promise to be an accurate and scalable solution to ballot duplication issues that exist in current manual and barcode systems.

• The research team believes that the technology should be further evaluated and developed.
THE COUNCIL OF STATE GOVERNMENTS

OVERSEAS VOTING INITIATIVE

COMMON ACCESS CARD (CAC) / DIGITAL SIGNATURE VERIFICATION

LORI AUGINO
DIRECTOR OF ELECTIONS, WASHINGTON OFFICE OF THE SECRETARY OF STATE
COMMON ACCESS CARD/DIGITAL SIGNATURE VERIFICATION

Subgroup Members:

• **Lori Augino** - Director of Elections, Washington Office of the Secretary of State (lead)

• **Amber McReynolds** - Director of Elections, City and County of Denver, Colorado

• **Donald Palmer** - Democracy Project Fellow, Bipartisan Policy Center; Auxiliary Member, CSG OVI Technology Working Group

• **Justus Wendland** - HAVA Administrator, Nevada Office of the Secretary of State
GOALS: COMMON ACCESS CARD/DIGITAL SIGNATURE VERIFICATION SUBGROUP

To make the voter registration process electronic for our military voters by allowing them to use their CAC to complete:

• Federal Post Card Application (Registration and Ballot Request Form)

• Any state registration and absentee ballot request documents

Why?

• Mail transit time recognized as a key barrier to participation.

• CAC electronic signatures have the potential to lower transit time by removing one item from the mail process.
Recommendation:

1. State laws should accommodate the use of Common Access Card, or CAC, digital signatures in the election process for UOCAVA voters as they have incorporated electronic signatures in other sectors.
COMMON ACCESS CARD/DIGITAL SIGNATURE VERIFICATION

Recommendation:

2. States should allow the use of a CAC digital signature to complete election-related activities such as submitting a Federal Post Card Application, or FPCA, to register to vote; and to provide an option for military personnel to designate their UOCAVA voting status using a state’s online election portal.
Recommendation:

3. State election offices should develop procedures and training materials in cooperation with FVAP and their local election offices regarding acceptance and use of a CAC digital signature. State election offices should also develop, in conjunction with FVAP and their local election offices, educational resources for UOCAVA voters about using a CAC digital signature and coordinate educational efforts with local military installations.
EXAMPLE: COMMON ACCESS CARD/DIGITAL SIGNATURE VERIFICATION

State of Nevada

• Created an online ballot delivery system for UOCAVA voters:
  • Seamlessly integrates registration, request, and ballot delivery into one electronic process.

• Online system mimics current process:
  • Local jurisdictions to process applications for voter registration and requesting an absent ballot.

• Built upon legal foundation:
  • Nevada permits UOCAVA voters to use electronic and digital signatures to sign registration, request, and ballot materials.
DATA STANDARDIZATION / PERFORMANCE METRICS

TOM CONNOLLY
DEPUTY DIRECTOR OF PUBLIC INFORMATION, NEW YORK STATE BOARD OF ELECTIONS
DATA STANDARDIZATION/PERFORMANCE METRICS

Subgroup Members:

• **Neal Kelley** - Registrar of Voters, Orange County, California (lead)

• **Thomas Connolly** - Deputy Director of Public Information, New York State Board of Elections

• **Stan Stanart** - Harris County Clerk, Texas
GOALS: DATA STANDARDIZATION/PERFORMANCE METRICS SUBGROUP

To improve data collection from Local Election Officials and to ease the burden of collecting, maintaining, and reporting critical Military & Overseas data.

- Standardized data allows for easy analysis as categories would be consistent across all jurisdictions.
- Collection of standardized data would reduce access times to data following major elections.
- Integration of data extracts (including data standards) into existing and future Election Management System contracts (California example).
- Expansion of data extracts into all areas of election data (with a byproduct of encouraging open data).
- Cost savings over time due to reductions in manual data entry and elimination of “bad” data.
DATA STANDARDIZATION/PERFORMANCE METRICS

Recommendation:

1. State and local election offices should work with FVAP and the Election Assistance Commission, or EAC, to adopt and implement the Election Administration and Voting Survey, or EAVS, Section B Data Standard, recognizing that it is the best vehicle for reducing the burden of completing federal reporting requirements for military and overseas voting and providing better data to isolate a voter’s experience and drivers for voter success.
DATA STANDARDIZATION/PERFORMANCE METRICS

Recommendation:

2. The Council of State Governments, or CSG, and state election officials should work with FVAP to identify a method or partner agency that can support automated data collection and validation to ensure the continued use of this standard.
Recommendation:

3. FVAP should continue to work cooperatively with the EAC and the National Institute of Standards and Technology, or NIST, to establish data repositories and related standards to support the long-term sustainability of the EAVS Section B Data Standard, or ESB. FVAP also should share lessons learned to assist similar EAC efforts in the future to reduce post-election reporting requirements.
EXAMPLE: DATA STANDARDIZATION/PERFORMANCE METRICS

Orange County, California

• Enhanced standardization of address data has improved list maintenance and dramatically reduced deceased and ineligible voters on active rolls

• Partnership with Experian to data scrub active voter lists (capturing movements up to 12 times)

• Has maximized internal efficiencies by reducing the amount of time spent updating and resending duplicate voting materials

• Realized significant cost savings by eliminating duplicate printing and postage expenditures as a result of multiple mailings to invalid addresses or duplicate voters.
EXAMPLE: DATA STANDARDIZATION/PERFORMANCE METRICS

Graph #10: Results of Records Returned by Credit Bureau
Out of 1000 Records

- Newer Address Provided
- Postcard Returned Undeliverable
- Voter Corrected Data On File
- Confirmed A Move Out of Orange County
- Confirmed A Move Within Orange County
- Changed Address At Least 10 Times
- Changed Address At Least 5 Times
- New Address Provided by Credit Bureau
EXAMPLE: DATA STANDARDIZATION PERFORMANCE METRICS

Graph #9: Updated Voter Records Using Credit Header Data

- Using Address Data From Credit Bureau
- Using Address Data Currently on File
EXAMPLE: DATA STANDARDIZATION/PERFORMANCE METRICS

Figure 1: Expenditure versus Savings Summary

- Total expenditure for Experian data
- Total savings as a result of the expenditure
EXAMPLE: DATA STANDARDIZATION/PERFORMANCE METRICS

Orange County, California

• 2016 data scrub success (and improving % of voter turnout to 80%)

• Number of targeted voters for correction (had not voted in past 4 years) = 207,000

• Number of corrections received = 18,688

• Target / Corrected return rate = 9%
CONCLUSION

QUESTIONS & ANSWERS

MARCI ANDINO
EXECUTIVE DIRECTOR
SOUTH CAROLINA STATE ELECTION COMMISSION
CONCLUSION

The technology solutions offered today address critical problems facing Military and Overseas Voters.

- As more ballots are transmitted electronically, there is a need to be able to duplicate these ballots so they can be counted by vote tabulators.

- As more voter registration and ballot request activities occur online, leveraging the U.S. Department of Defense CAC identity system will ensure that election officials can verify an individual’s identity using the best technology possible.

- Finally, capturing election information in a standard data format will allow analytics to be used to identify best practices in election administration.

Each of these solutions leverage existing knowledge and technologies, meaning that state and local election officials can easily implement these recommendations.
QUESTIONS & ANSWERS