Online Ballot Delivery
Brittany Westfall
West Virginia Secretary of State’s Office
bwestfall@wvsos.com
UOCAVA Voting Systems

• The integrity of UOCAVA voting systems is crucial
• States are working to streamline the process for voters covered under the Uniformed and Overseas Citizen Absentee Voting Act (UOCAVA):
  • Voter education
  • Online voter registration
  • Online ballot request
  • Electronic ballot delivery
  • Electronic ballot return
• 21 States and DC are recipients of the Electronic Absentee System for Elections (EASE) Grant
History of WV Legislation for UOCAVA Electronic Voting

• 2007 – **SB 606** provides for delivery and return by fax
• 2008 – **SB 514** provides for delivery and return by e-mail
• 2009 – **HB 406** creates UOCAVA online voting pilot project for the 2010 election year
• 2010 – **HB 4589** revises code to meet the requirements of the MOVE Act of 2009; provides for the delivery and return of ballots “electronically,” which opens the door for web-based ballot delivery
WV UOCAVA Voting Process Today

- **Ballot Request**
  - Mail
  - Fax
  - Email

- **Ballot Delivery**
  - Mail
  - Fax
  - Email
  - **Online (web-based)**

- **Ballot Return**
  - Mail
  - Fax
  - Email
WV Online Ballot Delivery from the Voter’s Perspective

1. UOCAVA voter applies for a ballot each election year by mail, fax, or email
2. Voter requests to receive the ballot online
3. Voter receives an email with a link to access his or her ballot
4. Voter enters first name, last name, date of birth, and email address to access the system
5. Voter may print a blank ballot or mark choices online for printing
6. Ballot is generated with the appropriate voting materials based on the method voter selects to return his or her ballot
7. Voter mails, faxes, or emails ballot and voting materials to county clerk
8. Voter may track the status of his or her ballot in the system
# Online Ballot Delivery Security

<table>
<thead>
<tr>
<th>Risk</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Data Breaches</td>
<td>• Cryptographic protections for web-based traffic</td>
</tr>
<tr>
<td>• Voter information</td>
<td>• System should not retain voter’s selections</td>
</tr>
<tr>
<td>• Blank ballots</td>
<td>• System should erase all data from voters computer</td>
</tr>
<tr>
<td>• Information stored on</td>
<td>• Firewalls and monitoring to protect data centers</td>
</tr>
<tr>
<td>voter’s computer</td>
<td></td>
</tr>
</tbody>
</table>
# Online Ballot Delivery Security

<table>
<thead>
<tr>
<th>Risk</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voter Fraud</td>
<td>• Ballot reconciliation, signature verification, and voter history maintenance at local level</td>
</tr>
<tr>
<td></td>
<td>• Including unique number on each ballot or on envelope</td>
</tr>
<tr>
<td></td>
<td>• Monitoring ballot downloads in system</td>
</tr>
</tbody>
</table>
# Online Ballot Delivery Security

<table>
<thead>
<tr>
<th>Risk</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Denial-of-Service attacks</td>
<td>• Provide alternate forms of absentee voting: mail, fax, and email</td>
</tr>
<tr>
<td></td>
<td>• Provide Federal Write-in Absentee Ballot (FWAB) if time becomes an issue</td>
</tr>
</tbody>
</table>
User Acceptance Testing (UAT)

• Most states use two phases of UAT
• Create a timeline with your vendor and/or IT staff and be sure they agree it is enough time to make necessary changes
• Include local jurisdictions in UAT
• Know your limitations and communicate them to the local jurisdictions before you begin UAT
• Include people unfamiliar with the UOCAVA voting process to better test for usability; pay particular attention to language
• Continue UAT prior to each election to ensure fixes and enhancements are working properly
Mock Election

- Include as part of timeline with vendor
- Allow enough time for final corrections to system
- Include voter and ballot data unique to the type of election (primary vs. general)
- Ask local jurisdictions to participate
Monitoring

- Ensure local jurisdictions understand the system and their role
- In West Virginia, counties are responsible for ballot proofing and monitoring system usage
- State level administrators also have ability to proof ballots and monitor usage
- Ask the counties what reports they need to best monitor the process
Best Practices for Monitoring Online Ballot Delivery

• Arkansas and Oregon created a data and experience sharing portal within their system to address issues
• Ohio requires their vendor to provide log of queries and how they were resolved, data reports, and an analysis of overall system performance after each election
• Virginia continues operational tests and reporting
• Utah requires weekly status updates from vendor, a recovery plan for malicious attacks, and outlines security measures in their agreement