“Everything you need to know in 60 minutes or less.”

- Acronyms and terminology
- Emerging technology and testing infrastructure
- A cautionary tale about election technology and legislation.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>BMD</td>
<td>Ballot Marking Device</td>
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<td>BOD</td>
<td>Ballot on Demand</td>
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<td>CVR</td>
<td>Cast Vote Record</td>
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<td>CCOS &amp; PCOS</td>
<td>Central Count Optical Scan &amp; Precinct Count OS</td>
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<td>DRE</td>
<td>Direct Recording Electronic (voting machine)</td>
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<td>EAC</td>
<td>U.S. Election Assistance Commission</td>
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<td>EMS</td>
<td>Election Management System</td>
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<td>FCA &amp; PCA</td>
<td>Functional Configuration Audit &amp; Physical C. A.</td>
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<td>L&amp;A</td>
<td>Logic &amp; Accuracy (testing)</td>
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<td>NIST</td>
<td>National Institute of Standards and Technology</td>
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<td>NVLAP</td>
<td>National Voluntary Lab Accreditation Program</td>
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<td>TDP</td>
<td>Technical Data Package</td>
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<td>VSTL</td>
<td>Voting System Test Laboratory</td>
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Terminology

**Conformance testing** = Process of testing a product against the requirements specified in one or more standards documents. The outcomes of a conformance test are generally a pass or fail result.

**Acceptance testing** = Testing of a voting system by the purchasing election jurisdiction to validate performance of delivered units in accordance with RFP requirements, and to validate that the delivered system is, in fact, the certified system purchased.

**Accreditation vs. certification** = *Accreditation* is the result of process audits of test laboratories to determine capability to test to requirements of our Standards. *Certification* is the process by which we show that a voting system has passed conformance testing.

**Voting System vs. Election System** = A voting *system* is the equipment used to define ballots, cast & count votes and report results. An *election system* may cover additional components and functionality and include EPB’s Statewide Voter Registration databases and more.
New Systems/Technology Coming from:

- Hart
- ES&S
- Everyone Counts
- Clear Ballot
- Unisyn

New technology/functionality, including but not limited to:
Technology/Functionality

Tabulators/BMDs/Op Scan systems
Technology/Functionality

E-Pollbooks
The testing and certification of voting systems is handled at all three levels of government. Federal, state and local governments all have a critical role to play in the assessment of voting technology prior to its deployment in the field. While the federal certification process and infrastructure are stable and consistent, state and local testing infrastructure depends on many variables including changing laws, resources, and expertise at those offices.

**Federal:** The federal testing and certification process is administered by the Election Assistance Commission (EAC). Recent research conducted by NCSL and the Bipartisan Policy Center (BPC) found that 47 out of 50 states rely on some or all of the EAC’s federal certification process. This makes the EAC’s process a critical foundation for the testing and certification infrastructure at the state and local level.
State: Some states have very clear statutory requirements for the testing and certification of voting technology. Florida has its own division for the testing and certification of voting technology. Georgia manages its certification testing through the Center for Election Systems at Kennesaw State University and Indiana through its VSTOP program at Ball State University.

In many states the requirements for the assessment of voting technology is either not addressed or is vague. In most of these states the infrastructure varies based on the priorities of the administration and the resources available. For most states one or two staff people are given the responsibility of administering the required process for certifying the election equipment. In many cases this task is only a small portion of their job.
Local: With limited exceptions (Travis County, TX and Los Angeles County, CA) local officials do not have the resources available to dedicate staff to the assessment of systems. The “certification” of systems at the local level is largely done through the acceptance testing process. Generally, local officials are given a list of certified products from the state that can be used in their jurisdiction. From there the local officials create request for proposals (RFP) to serves as the ad-hoc standards by which the local jurisdiction evaluates the system’s compatibility with the needs of the jurisdiction.

In most cases a local election official will have themselves and perhaps the county IT department to help them both craft the RFP and acceptance test the system. In some jurisdictions the local official will have their own IT department to conduct this testing.
Inaccurate or imprecise wording can lead to implementation problems for election officials and certifiers.


Code on electronic poll books was first passed by the State Legislature and signed into law by the Governor in 2013. The code contained over 20 provisions regarding functionality, communications, reporting and documentation. Many of the provisions contained either vague or inaccurate language. The code has been revised twice since then, once in 2014 and again in 2015.
Examples:


   **Original 2013 legislative language:** “An electronic poll book may not be connected to a voting system.”

   **Problem:** EPBs can be used to encode voter access cards that are then used with voting systems to deliver to the voter the proper ballot style.

   **2015 Revision:**
   (2) An electronic poll book may not be connected to a voting system. However, the electronic poll book may be used in conjunction with a voting system if both the following apply:
   (A) The electronic poll book contains a device that must be physically removed from the electronic poll book.... and
   (B) All data on the device is erased when the device is removed from the voting system and before the device is reinserted into an electronic poll book.
Election Technology Legislation: A Cautionary Tale

2. Unnecessarily limiting the system architecture of how the EPB makes data available to all polling locations. **Original 2013 legislative language:**
   
   “(7) The electronic poll list must transmit the information...to the county election board so that the board may transmit the information immediately to every other polling place or satellite absentee office in the county in which an electronic poll list is being used.”

**Problem:** Some e-poll book solutions use an architecture in which the data is not transmitted until it is requested by a poll book user at a particular location. Original language limited architectural solutions to “push” technologies.

**2015 Revision:**

“...the server makes the information immediately available to every other polling place or satellite office in the county.”
Questions?

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