State-Level Testing and Certification of Election Systems

TGDC Meeting
July 20, 2015

Interaction of Voting and Election Systems

Issues, Priorities & Practices

- All states and counties are on a continuum of replacing aged (and in some cases, obsolete) voting systems

- Cost is the predominant driving issue

- Older conceptual models of voting machines have been replaced with models of election systems – highly integrated systems with no clear-cut boundaries

- All voting systems are multi-modal

Issues, Priorities & Practices

- Reliance on the VVSG and resulting systems designed to the standard is universal – whether or not explicitly stated

- Rigidity of the EMS certification envelope is not a sustainable strategy

- Interoperability of data is a growing requirement to enable compatibility of systems

- Innovation has occurred in election systems at a greater rate than in voting systems

Issues, Priorities & Practices

- Life-span and life-cycle duration are emerging as testing criteria

- Single-pass certification is giving way to "rolling" certification: Every certification is provisional, every election a pilot.

- Reliance on single-point testing and certification is giving way to multi-point: Test (VSTL, vendor, jurisdiction(s)), Pilot, Audit, System revision

Issues, Priorities & Practices

- System anomalies may not result in hardware and/or software changes and subsequent testing and (re)certification. Just as likely to result in mitigation procedures at the jurisdiction level

- Testing and certification have to be enabling strategies, not impediments to conducting an election

Issues, Priorities & Practices

- Transition from standards to requirements-based testing. Increased interest and use of RFPs

- Growing awareness of the centrality and vulnerabilities of the voter registration system may overshadow perception of voting system as the "flag ship" election system

- Determining system dependencies in multi-vendor environments will increase the complexity of testing

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Issues, Priorities & Practices

- Lease/rental models of acquisition may increase vendor dependency and diminish jurisdictions' perceived need for external testing. The voting system belongs to the vendor, not the jurisdiction

Testing and Certification

- Separate processes – different goals
- Certification:
  - Indemnification
  - Check-list requirement (statute or rule)
  - Validates functional requirements of system
  - Illuminates and informs jurisdiction on use, maintenance, integration with other systems

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Testing and Certification

- National conference on State Testing and Certification of Voting Systems
  - Practitioners
  - Focus on issues, strategies and techniques for testing election systems
  - Repository of proceedings maintained by BSU
  - Resource for states and EAC

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