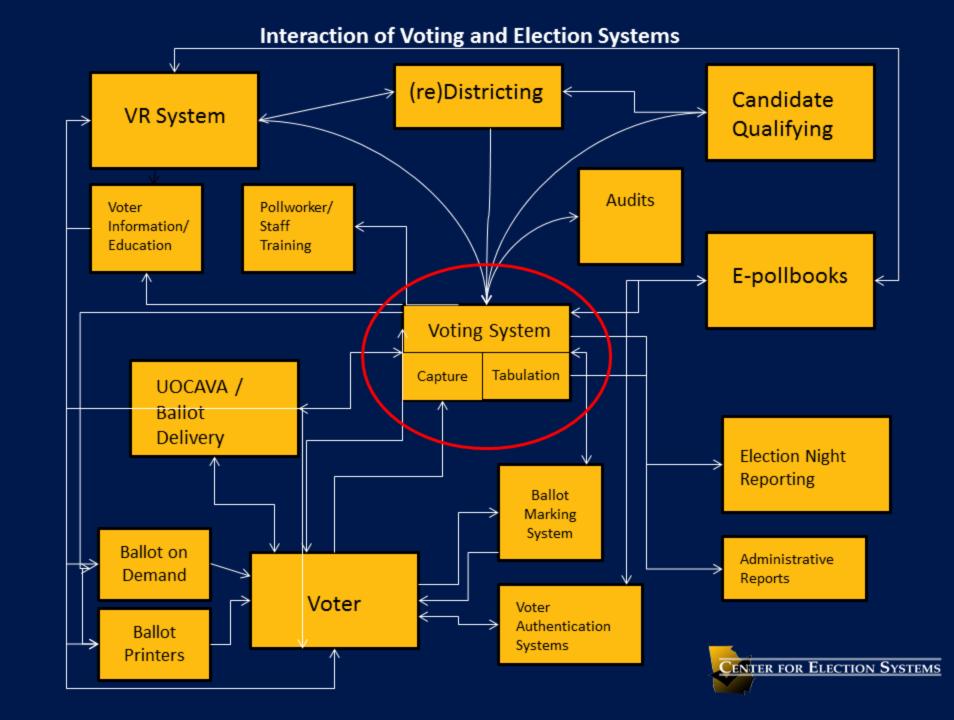


State-Level Testing and Certification of Election Systems

TGDC Meeting July 20, 2015



- 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



- 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



- 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



- 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



- 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



 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



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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