Testing the WHOLE System

What is done after certification is obtained?
Certifying the Voting System

- States have procedures for testing those devices they classify as “Voting Systems”
- Tests take place and the system either passes or fails
- If the system becomes certified for use, then the version of the system is “Frozen”
- When changes occur in related systems, what happens?
During Certification Testing

- Data is obtained from election-related systems (i.e., voter registration, candidate qualifying, etc.) and loaded into the candidate voting system to test its ability to perform.
- Data comes from systems that are not required to be frozen.
- During testing if issues arise, rarely are changes made to the data systems in use. Instead, changes are requested of the voting system – Make the voting system fit the mold established by the unfrozen systems.
After Certification Testing

• Election-related systems are allowed to be continually updated
• Do updates/changes to “Non-Frozen” systems affect the “Frozen” system’s ability to function?
• Who is reviewing the outputinputs of Non-Frozen systems to make sure changes put into play have not adversely affected their ability to communicate and work with the Frozen system?
Interaction of Frozen and Non-Frozen Systems (Georgia)

- Voter Registration System
- Candidate Qualifying System
- E-pollbooks
- Voting System (Capture, Tabulation)
- UOCAVA / Ballot Delivery
- Ballot on Demand
- Ballot Printers
- Election Night Reporting
- Web Display

Certified Voting System Component (Frozen)

Reviewed Election System Component

Non-frozen system
Continual Assessment

• Continually assess the ability of Frozen and Non-Frozen systems to effectively interact
• Different organizations involved in the process
  – State Election Office
  – State Certification Testing Authority
  – County Users
  – Vendors
• Identify roles and establish lines of communications between the entities involved on regular intervals
Continual Assessment - Examples

• Ballot building / county team(s) continually reviewing reports from VR system to verify that data within the output reports reflects the needed / correct data

• Pollbook preparation team continually extracting data from VR system to verify that data can be read and loaded into the Frozen Pollbook platform

• Results communicated back to the VR System Management team (State / Vendor)
Continual Assessment - Examples

• Candidate Qualifying Team (State/Vendor) – Verifies that output of Non-Frozen system is of a format that can be easily uploaded or entered into the Frozen System and to an Non-Frozen Election Night Reporting System

• Election Night Reporting Team (State/Vendor) – Verifies the results displayed are an accurate reflection of the results compiled by the Frozen system (i.e., candidate names, race titles, vote totals)

• Teams test the final outputs of the ENR system to confirm upload reflects the correct winners/loser so the proper history/commission can be assigned to each candidate
Continual Assessment - Examples

• Certification/Examining teams – Review peripheral items (i.e., Ballot On-Demand, Ballot Printers) to determine if end product can be recognized by the Frozen System

• Certification/Examining teams – Review potential ballot delivery systems to determine if reliable and ready, as well as its ability to receive data easily from the Frozen system
Publicize the Environment

• State/Counties need to make sure potential vendors know what systems are in play within the jurisdiction’s election structure

• Avoid as many assumptions as possible
Conclusion

• Testing does not stop with certification
• Jurisdictions need to have a plan in place to continually assess any of their certified systems to verify that they continue to communicate properly with all the election-related systems to which they must interact
Questions?

- Michael Barnes, Director  mbarne28@kennesaw.edu

470-578-6900
1-866-KSU-VOTE