Testing in the Real World: Voting System Manufacturer & Test Lab

OR: What are we really trying to accomplish at the TGDC?

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What Is It?

The VSTL Testing Process is **Compliance Testing**.

Does the system meet the VVSG? Yes or No.

Does the system do what manufacturer says it does? Yes or No.

It is NOT Quality Assurance
Preparation: Manufacturer

1. Application: Modification or New?
2. Technical Data Package (TDP)
3. Source Code
4. Hardware
5. Usability Test
Voting Variations

- Closed primaries
- Open primaries
- Partisan offices
- Non-partisan offices
- Write-in voting
- Primary presidential delegation nominations
- Ballot rotation
- Split precincts
- Vote for N of M
- Recall issues, with options
- Cumulative voting
- Ranked order voting
- Provisional or challenged ballots
Pre-Testing : VSTL

1. Technical Readiness Review (TRR)
2. TDP Review
3. Source Code Review
   Automated
   Manual
4. National Certification Test Plan Creation
   Reviewed and Accepted by EAC
Functional Testing : VSTL

1. Compliance Build

2. Compliance Testing
   - Physical Configuration Audit (PCA)
   - Functional Configuration Audit (FCA)

3. Security Testing
   - Penetration Test

4. Volume and Stress Test

5. Limits Testing
Physical Configuration Audit (PCA)

Inspection by an accredited test laboratory that compares the voting system components submitted for certification testing to the vendor’s technical documentation and confirms that the documentation submitted meets the national certification requirements. Includes witnessing of the build of the executable system to ensure that the certified release is built from the tested components.
Functional Configuration Audit (FCA)

Exhaustive verification of every system function and combination of functions cited in the vendor’s documentation. The FCA verifies the accuracy and completeness of the system’s Voter Manual, Operations Procedures, Maintenance Procedures, and Diagnostic Testing Procedures.
Post Test

1. National Certification Test Report
2. Trusted Build
3. Scope of Certification
4. Acceptance by the EAC

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1. State Certifications
Challenges of New Standards

Transitions

Interpretation Issues

Changes and timelines.

RFI Process
Thank you

Questions?