

VVSG Impact: A Testing Laboratory Perspective

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What is the same as the 2002 VSG?

- **Volume I**

- Section 2.1-2.2.6 and 2.2.8 to 2.6- System Functional Capabilities
- Section 3- Hardware Standards
- Section 4- Software Requirements
- Section 5- Telecommunications Requirements
- Section 6.1 to 6.6.4.3- Security
- Section 7- Quality Assurance Requirements
- Section 8- Configuration Management Requirements

What is the same as the 2002 VSG?

- **Volume II**

- Section 2- Description of Technical Data Package
- Section 3- Functional Testing
- Section 4- Hardware Testing
- Section 5- Software Testing
- Section 6- System Integration Testing
- Section 7- Examination of Vendor Configuration Management and Quality Assurance Practices
- Appendix A- Description of National Certification Test Plan
- Appendix B- Description of National Certification Test Report

What has changed in the new VVSG?

- **Volume I**

- Section 1- New text on program, clarifies requirements
- Section 2.2.7- Added many new requirements on Human Factors and HAVA 301(a)(3)
- Sections 6.6.4 to 6.8.7.5- Added many new requirements on Security, Wireless and VVPAT
- Appendix A- added Glossary
- Appendix B- added References
- Appendix C- added Best Practices for Election Officials
- Appendix D- added Independent Dual Verification Systems

What has changed in the new VVSG?

- **Volume I**

- Appendix D- added Independent Dual Verification Systems
- Appendix E- added NASED Technical Guide #1

- **Volume II**

- Section 1- revised National Certification Testing Guidelines
- Appendix C- added National Certification Test Design Criteria

Impact of Changes

Volume/Section	Topic	Impact
I/1	Introduction	New certification needed
I/2.2.7	Human Factors/Accessibility	Major changes
I/6.6.4	Software Security	Small, mostly administrative
I/6.7	Wireless Requirements	Major, expert staff needed
I/6.8	VVPAT	Small, mostly administrative
I/Appendix A	Glossary	None
I/Appendix B	References	None
I/Appendix C	Best Practices	None
I/Appendix D	Independent Verification Systems	Major, increased testing needed
I/Appendix E	NASED Technical Guide	Small, mostly administrative
II/Section 1	National Certification Program Guidelines	None, same process
II/Appendix C	National Certification Test Design Criteria	None, if system passes

Possible Issues

- Guidance is needed on summative usability tests required on partially blind, blind, persons with limited motor control, persons with limited command of English, and the general population. (2.2.7.2.1.1, 2.2.7.2.2.1, 2.2.7.3.1, ...)
- Acc-VS guidance with personal assistive devices is too broad. (2.2.7.1.2)
- Voter control of contrast must reset after vote is cast. (2.2.7.2.1.5)
- Synchronized audio with scrolling screens could be an issue with testing. (2.2.7.2.1.9)

Possible Issues (Continued)

- ATI requirements will require more testing. (2.2.7.2.2.2)
- Audio qualification to ANSI C63.19 will require more tests. (2.2.7.2.2.3)
- Recommend considering EIA/TIA 968 Hearing Aide Compatibility rules versus ANSI C63.19.
- Guidance on testing cochlear mounted hearing devices is needed. (2.2.7.2.2.3.3)
- Frequency Range of 315 Hz to 10kHz will require new testing and new test equipment. (2.2.7.2.2.3.7)
- Rate of speech control requires more testing and guidance on variability is needed. (2.2.7.2.2.3.9)

Possible Issues (Continued)

- Confirmation of the blind paper ballot will require additional testing. (2.2.7.2.2.6)
- Actuation force test will require many new testing fixtures. (2.2.7.3.2)
- Wheelchairs will have to be provided to evaluate clearance requirements. (2.2.7.4)
- English illiterate voter machines will require interpreters to be present during some parts of the testing. Required languages should be specified. (2.2.7.7.2.1)

Possible Issues (Continued)

- Wireless documentation must be reviewed by a “subject area recognized expert”. These will need to be identified. (6.7.2.1.3.1)
- Duplication of wireless and non-wireless capabilities will double testing time. (6.7.2.3)
- Encryption verification will also require an expert in the field. (6.7.5.1)
- VVPAT testing poses no significant testing issues. It just adds time to the process. (6.8)
- Witness IDV Systems will have twice the amount of testing because there are two devices to test. (Appendix D 1.3)

Here's the Bottom Line

- The VVSGs are a significant improvement over the past two documents (2002 and 1990), particularly in Human Factors, Accessibility and Security. However, prior to implementation, further clarification is needed on several requirements.
- The current 2005 VVSGs are in need of corrections in formatting of references to correct section, paragraph, requirement and page numbering (i.e., Volume I, Section 2).
- Independent Test Laboratories have new cost requirements in accreditation.
- Guidance for testing laboratories is needed in several new areas.
- New tests will add cost to certifying new voting systems.
- Wyle is already training staff to the VVSG and will be ready to implement by the end of the 90-day comment period.
- The mandatory implementation date of 24 months after comments is reasonable and doable.

Thank You For Your Time

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