

Volume I

Voluntary Voting System Guidelines

Overview

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Voluntary Voting System Guidelines Overview

1. Background

The United States Congress passed the Help America Vote Act of 2002 (HAVA) to modernize the administration of federal elections, marking the first time in our nation's history that the federal government has funded an election reform effort. HAVA provides federal funding to help the States meet the law's uniform and non-discretionary administrative requirements, which include the following new programs and procedures: 1) provisional voting, 2) voting information, 3) statewide voter registration lists and identification requirements for first-time registrants, 4) administrative complaint procedures, and 5) updated and upgraded voting equipment.

HAVA also established the U.S. Election Assistance Commission (EAC) to administer the federal funding and to provide guidance to the States in their efforts to comply with the HAVA administrative requirements. Section 202 directs the EAC to adopt voluntary voting system guidelines, and to provide for the testing, certification, decertification, and recertification of voting system hardware and software. The purpose of the guidelines is to provide a set of specifications and requirements against which voting systems can be tested to determine if they provide all the basic functionality, accessibility, and security capabilities required of voting systems.

This document, the *Voluntary Voting System Guidelines*, is the third iteration of national level voting system standards that has been developed. The Federal Election Commission published the *Performance and Test Standards for Punchcard, Marksense and Direct Recording Electronic Voting Systems* in 1990. This was followed by the *Voting Systems Standards* in 2002.

As required by HAVA, the EAC formed the Technical Guidelines Development Committee (TGDC) to develop an initial set of recommendations for the Guidelines. This committee of 15 experts began their work in July 2004 and submitted their recommendations to the EAC in the 9-month timeline prescribed by HAVA. The TGDC was provided with technical support by the National Institute for Standards and Technology (NIST), who was given nearly \$3 million dollars by the EAC to complete this work. This funding represents the first time the federal government has spent a significant amount of funds on setting guidelines for voting systems. These latest *Guidelines* update and augment the 2002 *Voting Systems Standards* to address increasingly complex voting system technology. Specifically, the 2005 *Guidelines* address the critical topics of accessibility, usability, and security.

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These Guidelines are voluntary. States may adopt them in whole, in part, or not at all. States may also choose to enact stricter performance requirements for certifying their voting systems.

2. Effective Date

These Guidelines shall become effective 24 months after their final adoption by the EAC. At that time, every component of every system submitted for national certification testing shall be tested for conformance with these Guidelines. Adoption of these Guidelines is voluntary, so during this 24-month period, States may adopt these Guidelines in whole or in part at any time, and thereby require their systems to meet these Guidelines. However, the effective date provision does not apply to the HAVA Section 301(a) mandatory requirements, which all States must comply with by January 1, 2006.

Summary of Changes

Volume I of the *Guidelines*, entitled “Voting System Performance Guidelines,” includes new requirements for accessibility, voting system software distribution, system setup validation, and the use of wireless communications. This volume also includes a set of optional requirements for a Voter Verified Paper Audit Trail component for Direct Recording Electronic voting systems for use by those States that have decided to require this feature for their voting systems. In addition, this volume includes an updated glossary and a conformance clause.

Volume II of the *Guidelines*, entitled “Voting System National Certification Guidelines,” has been revised to reflect the new EAC process for national certification of voting systems. This process will go into effect in 2005 and will replace the voting system qualification process that has been conducted by the National Association of State Election Directors since 1994. Volume II also includes an updated appendix on procedures for testing system error rates. Terminology in both volumes has been revised to reflect new terminology introduced by HAVA.

3. Volume I Summary

Volume I, the Voting System Performance Guidelines, describes the requirements for the electronic components of voting systems. It is intended for use by the broadest audience, including voting system developers, manufacturers and suppliers; voting system testing labs; state organizations that certify systems prior to procurement; state and local election officials who procure and deploy voting systems; and public interest organizations that have an interest in voting systems and voting system standards. It contains the following sections:

- Section 2 describes the functional capabilities required of voting systems.

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- Sections 3 through 6 describe specific performance standards for election system hardware, software, telecommunications, and security.
- Sections 7 and 8 describe requirements for vendor quality assurance and configuration management practices and the documentation required about these practices for the certification process.
- Appendix A contains a glossary of terms.
- Appendix B provides a list of documents incorporated into the Guidelines by reference, as well as documents used in the preparation of the Guidelines.
- Appendix C contains best practices for election officials regarding accessibility, paper audit trails, and wireless.
- Appendix D presents an informational discussion of independent dual verification as a potential concept for future voting system security design.
- Appendix E contains the NASED Voting System Standards Board Technical Guide #1 on color and contrast adjustment for individuals with low vision or color blindness.

4. Volume II Summary

Volume II, the Voting System National Certification Testing Guidelines, is a complementary document to Volume I. Volume II provides an overview and specific detail of the national certification testing process, which is performed by independent voting system test labs accredited by the EAC. It is intended principally for use by vendors, test labs, and election officials who certify, procure, and accept voting systems. This volume contains the following sections:

- Section 2 provides a description of the Technical Data Package that vendors are required to submit with their system for certification testing.
- Section 3 describes the basic functionality testing requirements.
- Sections 4 through 6 define the requirements for hardware, software and system integration testing.
- Section 7 describes the required examination of vendor quality assurance and configuration management practices.

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- Appendix A provides the requirements for the National Certification Test Plan that is prepared by the voting system test lab and provided to the EAC for review.
- Appendix B describes the scope and content of the National Certification Test Report which is prepared by the test lab and delivered to the EAC along with a recommendation for certification.
- Appendix C describes the guiding principles used to design the voting system certification testing process. It also contains a revised section on testing system error rates.

5. Public Comment Process

The Voluntary Voting System Guidelines is provided for comment by the public for the next 90 days. During this time, the document is available in both PDF and HTML formats on the EAC website at www.eac.gov. The document is also available in hard copy and CD-ROM formats. Call the EAC at (202) 566-3100 to request a copy.

The EAC website contains instructions for how to submit comments. For ease of processing it is preferred that comments be submitted electronically to a special email box: votingsystemguidelines@eac.gov. They may also be mailed to: Voting System Guidelines Comments, U.S. Election Assistance Commission, 1225 New York Avenue, N.W., Suite 1100, Washington DC 20005.

The format of the Guidelines is intended to facilitate ease of identifying new information and comparison with the 2002 Voting Systems Standards. New material is indicated by a gray-shaded header with the words “NEW MATERIAL,” and includes line numbers. Material essentially carried forward in its entirety from the 2002 Voting Systems Standards remains in its original format and does not include line numbers. Selected portions of this material have been revised to reflect the EAC process for voting system certification, specifically Volume I, Section 1.6.1, and Volume II Section 1. Updates have been made throughout to include new terminology introduced by HAVA.