

# VVSG 2.0

# Voting System Definition

# Update

# Overview

- Why does the definition matter?
- HAVA's definition
- VVSGs 1.0 and 1.1
- 2007 VVSG Recommendations
- VVSG 2.0

# Why is the definition important?

- It defines, generally, the scope of the VVSG
  - The VVSG requirements may have something more precise to say about certain areas, e.g., accessibility, interoperability, security, usability
- Requirements often can be satisfied by ‘the voting system’ as opposed to a specific device
  - Allows the marketplace to innovate
  - Thus, definition must be accurate in scope
  - Manufacturers and VSTLs must have same understanding of the definition
  - Clear, plain language is critical

# Original HAVA definition

- Found in Help America Vote Act (HAVA) of 2002 Section 301
- In effect, defines the general scope of the VVSG
- Basic set of pre-election, election, and post-election functions
- Avoids mention of specific devices, leaves that to the marketplace to determine

# HAVA definition

“(1) total combination of mechanical, electro-mechanical, or electronic equipment (including the software, firmware, and documentation required to program, control, and support the equipment) that is used

- A. to define ballots
  - B. to cast and count votes
  - C. to report or display election results, and
  - D. to maintain and produce any audit trail information,
- and...

# HAVA definition, continued

- (2) the practices and associated documentation used
- A. to identify system components and versions of such components,
  - B. to test the system during its development and maintenance,
  - C. to maintain records of system errors and defects,
  - D. to determine specific system changes to be made to a system after the initial qualification of the system, and
  - E. to make available any materials to the voter (such as notices, instructions, forms, or paper ballots).”

# VVSG 1.0, 1.1 definition

- The 1.0 definition combines the definitions used in HAVA into one complete sentence, otherwise no changes in scope or use of language
- 1.1 definition did not change, as 1.1 was not intended to be a major update
- 1.1 did add one additional clause indicating that an automatic bar code reader is considered part of the voting system

# 2007 VVSG Recommendations

- Changes made to improve 1.0's usability within the guidelines without expanding or limiting scope

“Equipment (including hardware, firmware, and software), materials, and documentation used to define elections and ballot styles, configure voting equipment, identify and validate voting equipment configurations, perform logic and accuracy tests, activate ballots, capture votes, count votes, reconcile ballots needing special treatment (e.g., provisional and challenged, write-ins, and review-required ballots), generate reports, transmit election data, archive election data, and audit elections.”

## Methodology used for VVSG 2.0 update

- NIST started with VVSG 1.0 and 1.1's identical definition, created from HAVA's
- We applied plain-language changes from the 2007 VVSG definition, which was a total re-write of VVSG 1.0
- We subsequently reviewed VVSG 2.0 requirements and made further changes to improve the definition's clarity of scope
- Definition is consistent with past definitions and does not expand or limit scope set by HAVA

# Initial VVSG 2.0 definition

“Equipment (including hardware, firmware, and software), materials, and documentation used to define elections and ballot styles, configure voting equipment, identify and validate voting equipment configurations, perform logic and accuracy tests, **activate ballots**, **capture votes**, count votes, **reconcile** ballots needing special treatment, generate reports, **transmit** election data, archive election data, and **audit elections**.”

*(italics indicate where changes were made in the current voting system definition, on next slide)*

# Current VVSG 2.0 definition

“Equipment (including hardware, firmware, and software), materials, and documentation used to enact the following functions of an election:

1. define elections and ballot styles,
2. configure voting equipment,
3. identify and validate voting equipment configurations,
4. perform logic and accuracy tests,
5. ***activate ballots for voters,***
6. ***record votes cast by voters,***
7. count votes,
8. ***label*** ballots needing special treatment,
9. generate reports,
10. ***export election data,***
11. archive election data, and
12. ***produce records in support of audits.***”