

# Voluntary Voting System Guidelines VVSG 2.0

Requirements for the Voluntary Voting System  
Guidelines 2.0

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Prepared for the *Election Assistance Commission*

At the direction of the  
*Technical Guidelines Development Committee*

# Principle 5

## Equivalent and Consistent Voter Access

All voters can access and use the voting system regardless of their abilities.

5.1 - Voters have a consistent experience throughout the voting process within any method of voting.

5.2 - Voters receive equivalent information and options in all modes of voting.

## Principle 5

### EQUIVALENT AND CONSISTENT VOTER ACCESS

All voters can access and use the voting system regardless of their abilities.

*Principle 5* ensures that all voters can cast their votes easily and accurately, regardless of any disabilities they may have. This fulfills the requirements of the *Help America Vote Act (HAVA), Section 301(a)(3) [HAVA02]* which states, “The voting system shall (A) be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters.”

It also addresses *Section 508 Information and Communication Technology (ICT) Final Standards and Guidelines [USAB18]* which requires that electronic and information technology be accessible to people with disabilities, and the language access requirements in the *Voting Rights Act (VRA) [VRA65]*.

The goal of both guidelines in *Principle 5* is to ensure that everyone can use the voting system, regardless of their abilities or preferences. Voting equipment can present ballot choices in a variety of ways which make it possible for people with a wide range of disabilities to vote. The equipment must also fully support all the languages that the manufacture claims to support. The big differences are that guidelines:

**1 – Consistent experience** also covers the requirement that all vote records must be auditable by those who speak only English. Also, in addition to actually casting their votes, voters must have access to those same display formats and interaction modes for all information and instructions related to casting those votes.

**2 – Equivalent information** also addresses the requirement that these display formats (visual, audio, enhanced visual) and interaction modes (touch, tactile, limited dexterity) must offer consistent and equivalent support for the actions required to vote, and offer them in a way that does not introduce bias. In addition, if the voter switches formats mid-stream, for example from visual to audio or from Spanish to English, the system must preserve all settings and votes cast.

Finally, note that this principle’s requirements, including supporting the display formats and interaction modes listed in *5.1-A – Voting methods and interaction modes*, also apply to all of the usability and accessibility requirements in *Principles 6-8*.

## 5.1 – Voters have a consistent experience throughout the voting process within any method of voting.

### 5.1-A – Voting methods and interaction modes

Within any method of voting, all display formats including enhanced visual and audio and all interaction modes including tactile and limited dexterity must have the same functionality as the visual format and touch mode including voting, verification, and casting.

#### Discussion

Methods of voting that a voting system might support include in-person voting, vote-by-mail, remote ballot marking, among others. The VVSG scope is in-person voting. For voting systems to meet this requirement they would need to include, for example:

- Features that support limited dexterity interaction to enable voters who lack fine motor control or the use of their hands, to submit their ballots privately and independently without manually handling the ballot.
- Features for paper ballots or paper verification records that assist voters with poor reading vision to read these ballots and records.
- Features to allow blind voters and voters with limited dexterity to perform paper-based verification or feed their own optical scan ballots into a scanner, if all other voters do so. For example, ballot papers or smart cards might provide tactile cues that allow the correct insertion of the card.
- Support for all voting variations. For example, if a visual ballot supports voting a straight-party ticket and then changing the vote for a single contest, so do all other display formats and interaction modes.

This requirement is based on *WCAG 2.0 [W3C10]* and *Section 508 [USAB18]*.

### 5.1-B – Languages

The voting system must be capable of displaying and printing the ballot, contest options, review screens, voter verifiable paper records, and voting instructions in all languages the manufacturer has declared the system supports, in both visual and audio formats where applicable.

#### Discussion

Both written and unwritten languages are within the scope of this requirement.

The system will be tested in all languages that the manufacturer claims it is capable of supporting.

This requirement originates with the *VRA [VRA65]*.

## 5.1-C – Vote records

All records, including paper ballots and voter verifiable paper records, must have the information required to support auditing by election workers and others who can only read English.

### Discussion

Although the system needs to be easily usable by voters using an alternative language, records of the vote also need to be fully available to English-only readers to support election administration and auditing. See *9.4 - The voting system supports efficient audits* for related requirements.

To meet this requirement, a paper ballot may not be a fully bilingual ballot. For instance, the full text of a ballot question might appear only in the alternative language, but the contest option (for example, “yes / no”) needs to be readable by English-only readers.

## 5.1-D – Accessibility features

Accessibility features must be integrated into the manufacturer’s voting system so accessibility for voters with disabilities is supported throughout the voting session, including any steps to activate the ballot at the voting station, ballot marking, verification, and casting.

### Discussion

This requirement ensures accessibility to the voter throughout the entire session. Not only are individual system components (such as ballot markers, paper records, and optical scanners) accessible, but they also support voters with disabilities throughout the process of voting from activation through casting. Requirements for individual system components are described in *Principle 7: Marked, Verified, and Cast as Intended*. This general requirement supports *HAVA [HAVA02]*.

Related requirements:      6.1-B – Warnings

## 5.1-E – Reading paper ballots

If the voting system generates a paper record (or some other durable, human-readable record) that can be the official ballot or determinative vote record, then the voting system must allow the voter to verify the paper record using the same access features they used to mark the ballot, including enhanced visual and audio formats and tactile and limited dexterity modes.

### Discussion

Paper records present difficulties for voters who use large font, high contrast, alternative languages, and other settings. The purpose of this requirement is to ensure that all voters have a similar

opportunity for vote verification. For ballot marking devices, for example, if the voter is using audio to make their selections, the voter verifiable paper record, not the stored voter selections, must be read back.

This requirement allows the voter to use the same access features throughout the entire voting session. It also does not preclude the voter from choosing a different access feature to verify the record. For example, the voting system might provide a reader that converts the paper record contents into audio output.

This requirement supports *HAVA [HAVA02]*.

Related requirements: 7.1-I – Text size (paper)

### **5.1-F – Accessibility documentation**

As part of the overall system documentation the manufacturer must include descriptions and instructions for all accessibility features that describe:

- recommended procedures that fully implement accessibility for voters with disabilities, and
- how the voting system supports those procedures.

#### **Discussion**

The purpose of this requirement is for the manufacturer not simply to deliver system components, but also to describe the accessibility scenarios they are intended to support, so that election offices have the information they need to effectively make accessibility features available to voters with disabilities.

This requirement is based on *WCAG 2.0 [W3C10]* and *Section 508 [USAB18]*.

Related requirements: 7.3-N – Instructions for voters  
7.3-O – Instructions for election workers