



United States Election Assistance Commission



Certificate of Conformance

ES&S EVS 6.5.0.0

The voting system identified on this certificate has been evaluated at an accredited voting system testing laboratory for conformance to the *Voluntary Voting System Guidelines Version 1.0 (VVSG 1.0)*. Components evaluated for this certification are detailed in the attached Scope of Certification document. This certificate applies only to the specific version and release of the product in its evaluated configuration. The evaluation has been verified by the EAC in accordance with the provisions of the *EAC Voting System Testing and Certification Program Manual* and the conclusions of the testing laboratory in the test report are consistent with the evidence adduced. This certificate is not an endorsement of the product by any agency of the U.S. Government and no warranty of the product is either expressed or implied.

Product Name: EVS

Model or Version: 6.5.0.0

Name of VSTL: Pro V&V

EAC Certification Number: ESSEVS6500

Date Issued: 07/24/2024

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Executive Director

Scope of Certification Attached

Manufacturer: Election Systems & Software
System Name: EVS 6.5.0.0
Certificate: ESSEVS6500

Laboratory: Pro V&V
Standard: VVSG 1.0
Date: 7/24/2024



Scope of Certification

This document describes the scope of the validation and certification of the system defined above. Any use, configuration changes, revision changes, additions or subtractions from the described system are not included in this evaluation.

Significance of EAC Certification

An EAC certification is an official recognition that a voting system (in a specific configuration or configurations) has been tested to and has met an identified set of Federal voting system standards. An EAC certification is **not**:

- An endorsement of a Manufacturer, voting system, or any of the system's components.
- A Federal warranty of the voting system or any of its components.
- A determination that a voting system, when fielded, will be operated in a manner that meets all HAVA requirements.
- A substitute for State or local certification and testing.
- A determination that the system is ready for use in an election.
- A determination that any particular component of a certified system is itself certified for use outside the certified configuration.

Representation of EAC Certification

Manufacturers may not represent or imply that a voting system is certified unless it has received a Certificate of Conformance for that system. Statements regarding EAC certification in brochures, on Web sites, on displays, and in advertising/sales literature must be made solely in reference to specific systems. Any action by a Manufacturer to suggest EAC endorsement of its product or organization is strictly prohibited and may result in a Manufacturer's suspension or other action pursuant to Federal civil and criminal law.

System Overview

The ES&S EVS 6.5.0.0 voting system is a modification of the EVS 6.4.0.0 voting system, certified on August 18, 2023. The EVS 6.5.0.0 voting system introduces ExpressVote version 3.0, and also contains modifications to Electionware, ExpressVote versions 1.0 and 2.1, ExpressVote XL, DS200, DS300, DS450, DS850, and DS950. EVS 6.5.0.0 is composed of software applications, central count location devices and polling place devices with accompanying firmware, and COTS hardware and software:

Electionware[®] election management software is an end-to-end election management software application that provides election definition creation, ballot formation, equipment configuration, result consolidation, adjudication, and report creation. Electionware is composed

of five software groups: Define, Design, Deliver, Results, and Manage. This release of Electionware also includes the Additional Reporting module.

ExpressVote® XL is a hybrid paper-based polling place voting device that provides a full-face touch screen vote capture interface that incorporates the printing of the voter's selections as a cast vote record and tabulation scanning into a single unit.

ExpressTouch® is a DRE voting system which supports electronic vote capture for all individuals at the polling place.

ExpressVote® Hardware 1.0 is a hybrid paper-based polling place voting device that provides touch screen vote capture that incorporates the printing of the voter's selections as a cast vote record, to be scanned for tabulation in any one of the ES&S precinct or central tabulators.

ExpressVote® Hardware 2.1 is a hybrid paper-based polling place voting device that provides touch screen vote capture that incorporates the printing of the voter's selections as a cast vote record, to be scanned for tabulation in any one of the ES&S precinct or central tabulators. There are two separate versions of ExpressVote HW2.1: version 2.1.0.0 and version 2.1.2.0.

ExpressVote® Hardware 3.0 is a hybrid paper-based polling place voting device that provides touch screen vote capture that incorporates the printing of the voter's selections as a cast vote record, to be scanned for tabulation in any one of the ES&S precinct or central tabulators.

DS200® is a polling place paper-based voting system, specifically a digital scanner and tabulator that simultaneously scans the front and back of a paper ballot and/or vote summary card in any of four orientations for conversion of voter selection marks to electronic cast vote records (CVR).

DS300® is a polling place paper-based voting system, specifically a digital scanner and tabulator that simultaneously scans the front and back of a paper ballot and/or vote summary card in any of four orientations for conversion of voter selection marks to electronic cast vote records (CVR).

DS450® is a central scanner and tabulator that simultaneously scans the front and back of a paper ballot and/or vote summary card in any of four orientations for conversion of voter selection marks to electronic Cast Vote Records (CVR).

DS850® is a central scanner and tabulator that simultaneously scans the front and back of a paper ballot and/or vote summary card in any of four orientations for conversion of voter selection marks to electronic Cast Vote Records (CVR).

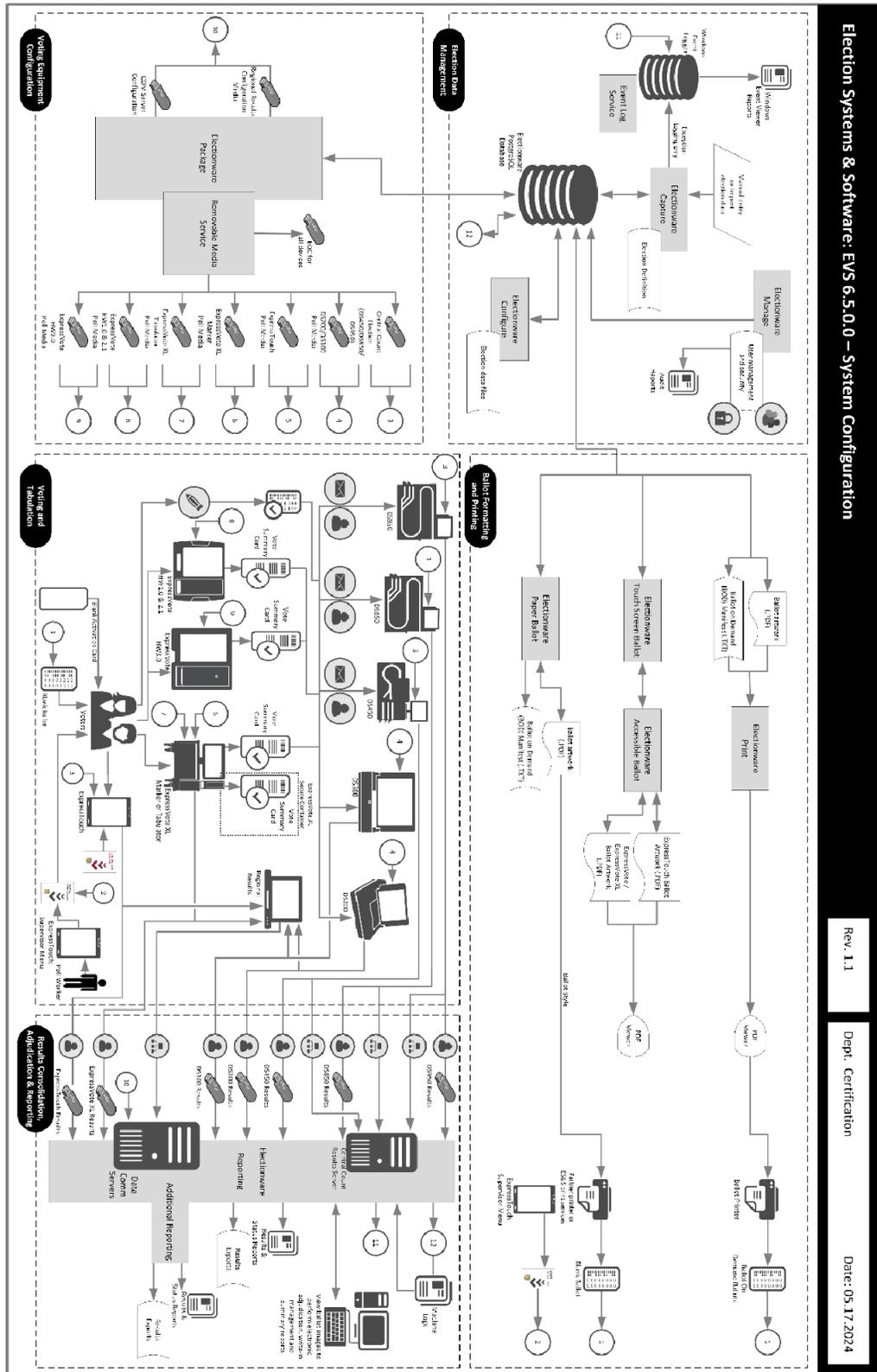
DS950® is a central scanner and tabulator that simultaneously scans the front and back of a paper ballot and/or vote summary card in any of four orientations for conversion of voter selection marks to electronic Cast Vote Records (CVR).

Event Log Service (ELS) monitors and logs users' interactions with the election management system. Events that happen when a connection to the database is not available are logged to the Windows operating system log through the ELS.

Removable Media Service (RMS) is a utility that runs in the background of the Windows operating system. RMS reads specific information from any attached USB devices so that an ES&S application such as Electionware can use that information for media validation purposes.

Electionware® Regional Results (Regional Results) is a standalone application that is deployed at Regional Sending Sites. For more efficient results reporting, the Regional Results software then securely transmits the encrypted unofficial results collection files over a customer dedicated network.

System Diagram



EVS 6.5.0.0 System Overview

Certified System before Modification (If applicable):

EVS 6.4.0.0

Changes addressed by modification for EVS 6.5.0.0

Hardware

New Hardware

ExpressVote 3.0: The ExpressVote is a vote capture device designed for all voters, with independent voter-verifiable paper record that is digitally scanned for tabulation on a compatible ES&S tabulator.

Hardware Modifications

- **ExpressVote XL:** added/updated the following components:
 - Introduced the motherboard revision 2.0 to replace end-of-life parts.
 - Added a smart card reader for multi-factor authentication (reserved for future use).
 - Added an 8GB CFast 2 (data) card for customers with large volume elections (optional).
 - Added a re-engineered Paper Path Module (PPM) ground strap.

Software/Firmware Changes

Cross-Product Changes

- Added support for additional languages on printed ballots and for the ExpressVote. Impacted products:
 - Electionware
 - ExpressVote
- Added support for scanning a 2D barcode containing voter selections generated by a third-party application. Impacted products:
 - Electionware
 - ExpressVote
- Replaced all purchased fonts with open-source equivalents. Impacted products:
 - Voting System
- Implemented recommended security enhancements based on third-party security review. Impacted products:
 - Voting System

DS300

- Added the option to validate the application files on-demand from the administrative menu.

Electionware

- Added a results export XML using the common data format.

- Results Exporting
- Added the Additional Reporting module with a live results dashboard
 - Reporting
- Added the ability to lay out the ExpressVote XL touch screen ballot in a column-by-column display similar to the Column Portrait layout available in Paper Ballot
 - ExpressVote XL

Mark Definition

ES&S' declared mark recognition for the DS200, DS300, DS450, DS850 and DS950 is a mark across the oval that is 0.02" long x 0.03" wide at any direction.

Tested Marking Devices:

Bic Grip Roller Ball Pen

Language Capability

System fully supports English, Spanish, Chinese, Korean, Japanese, Hindi, Bengali, Vietnamese, Tagalog, Creole, Russian, French, Punjabi.

The following languages are supported, but not by polling place tabulators: Gujarati, Arabic, Armenian, Burmese, Khmer, Hmong, Indonesian, Ilocano, Laotian, Mien, Mongolian, Nepali, Persian, Syriac, Tamil, Telegu, Thai, Urdu.

Proprietary Components Included

This section provides information describing the components and revision level of the primary components included in this Certification.

| System Component | Software or Firmware Version | Hardware Version | Model | Comments |
|-----------------------------------|------------------------------|------------------|-------|---|
| Electionware | 6.5.0.0 | | | Election management software that provides end-to-end election management activities |
| Electionware Additional Reporting | 1.1.0.0 | | | Additional Reporting module with a live results dashboard. |
| ES&S Event Log Service (ELS) | 3.0.0.0 | | | Logs users' interactions with EMS |
| Removable Media Service (RMS) | 3.0.0.0 | | | Utility that runs in the background of the Windows operating system |
| Regional Results | 1.7.0.0 | | | Standalone application that is deployed at Regional Sending Sites. |
| DS200 | 3.2.0.0 | 1.2, 1.3 | | Poll Place Scanner and Tabulator that scans voter selections from both sides of the ballot simultaneously |
| DS300 | 3.2.0.0 | 1.0 | | Poll Place Scanner and Tabulator that scans voter selections from |

| System Component | Software or Firmware Version | Hardware Version | Model | Comments |
|-------------------------------|------------------------------|--------------------|----------|---|
| | | | | both sides of the ballot simultaneously |
| DS200/DS300 Ballot Box | | 1.0, 1.1 | 98-00009 | Collapsible Ballot Box |
| DS200/DS300 Ballot Box | | 1.0 | 98-00110 | Collapsible Ballot Box |
| DS200/DS300 Ballot Box | | 1.2, 1.3, 1.4, 1.5 | 57521 | Plastic Ballot Box |
| DS200/DS300 Tote Bin | | 1.0 | 00074 | Tote Bin Ballot Box |
| DS200/DS300 Ballot Trolley | | | 212516 | Ballot Trolley Ballot Box |
| DS200 Metal Ballot Box | | 1.0, 1.1, 1.2 | 76245 | Metal Ballot Box |
| DS200/DS300 Ballot Tote Bag | | | 60 | Ballot Tote Bag |
| DS200/DS300 Carrying Case | | | 90282 | Soft-sided carrying case |
| DS200/DS300 Carrying Case | | | 98-00045 | Hard-sided lid/carrying case with wheels and extendable handle |
| DS200/DS300 Carrying Case | | | 94052 | Hard-sided carrying case (suitcase) |
| DS300 Ballot Box | | 1.0 | 57300 | Plastic Ballot Box |
| DS450 | 4.4.0.0 | 1.0 | | Central Count Scanner and Tabulator |
| DS450 Cart | | | 3002 | |
| DS850 | 4.4.0.0 | 1.0 | | Central Count Scanner and Tabulator |
| DS850 Cart | | | 6823 | Metal cart for DS850 only |
| DS950 | 4.4.0.0 | 1.1 | | Central Count Scanner and Tabulator |
| Central Count Cart | | | 7898 | Metal cart for DS450/DS850/DS950 |
| ExpressVote XL | 4.4.0.0 | 1.0 | | Hybrid full face paper-based vote capture and selection device and precinct count tabulator |
| ExpressTouch | 4.4.0.0 | 1.0 | | DRE |
| ExpressVote HW1.0 | 4.4.0.0 | 1.0 | | Hybrid paper-based vote capture and selection device |
| ExpressVote HW2.1 | 4.4.0.0 | 2.1.0.0, 2.1.2.0 | | Hybrid paper-based vote capture and selection device |
| ExpressVote 3.0 | 4.4.0.0 | 3.0 | | Hybrid paper-based vote capture and selection device |
| ExpressVote Carrying Case | | | 98-00050 | Soft-sided carrying case |
| ExpressVote Rolling Kiosk | | 1.0 | 98-00049 | Portable Voting Booth |
| ExpressVote 3.0 Carrying Case | | | 98-00120 | Soft-sided carrying case |

| System Component | Software or Firmware Version | Hardware Version | Model | Comments |
|--------------------------------------|------------------------------|------------------|------------------------|-----------------------------------|
| Voting Booth | | | 98-00051 | Stationary Voting Booth |
| ExpressVote Ben Franklin Booth | | | 00380, 00381 (adaptor) | Sitting and Standing Voting Booth |
| Dual Express Cart | | | 41402 | Portable Voting Booth |
| Quad Express Cart | | | 41404 | Portable Voting Booth |
| Voting Booth Workstation | | | 87035 | Stationary voting booth |
| MXB ExpressVote Voting Booth | | | 95000 | Sitting and Standing Voting Booth |
| ExpressVote Single Table | | | 87033 | Voting Table for One Unit |
| ExpressVote Double Table | | | 87032 | Voting Table for Two Units |
| ADA Table | | | 87031 | Voting Table for One Unit |
| ExpressVote Audio-Tactile Keypad | 1.0.0.0 | | 97-00168 | Audio-Tactile Keypad |
| ExpressVote 3.0 Audio-Tactile Keypad | | | 97-00617 | Audio-Tactile Keypad |
| Universal Voting Console (UVC) | | 2.0 | 98-00077 | Detachable ADA support peripheral |
| ExpressTouch Tabletop Easel | | | 14040 | |
| ExpressTouch Carrying Case | | | 14041 | Soft-sided carrying case |
| ExpressTouch Voting Booth | | | 98-00081 | Stationary Voting Booth |
| Secure Setup | 6.5.0.0 | | | Proprietary Hardening Script |

COTS Software

| Manufacturer | Application | Version |
|-----------------------|---|---|
| Microsoft Corporation | Windows 10 Enterprise LTSC | WIN10_6500.iso |
| Microsoft Corporation | Windows Server 2022 | WIN2022_6500.iso |
| Microsoft Corporation | Windows Updates (Software updates included in the OS image) | Package date: WIN10_6500.iso – 02/28/23 WIN2022_6500.iso – 02/28/23 |
| Microsoft Corporation | Windows Defender Antivirus (Configured within the OS image) | N/A |
| Dell | TPM Utility | DellTpm2.0_Fw1.3.2.8_V1_64.exe |
| Cisco | Router firmware | 1.0.03.29 |
| Cisco | Rommon | ASA 5506-X (1.1.18) ASA 5508-X (1.1.18) ASA FPR-1010 (N/A) |
| Cisco | ASA Firmware | ASA 5506-X (9.16.4) ASA 5508-X (9.16.4) ASA FPR1010 (9.19.1) |
| Kiwi Syslog Server | Remote Event Log Monitoring | 9.8.1 |
| Amyuni | Amyuni PDF Generator | 5.5 |

| Manufacturer | Application | Version |
|----------------------------------|--|---|
| Cerberus | Cerberus FTP Server – Professional | 12.1 (64-bit) |
| Sumatra | Sumatra PDF Viewer | 3.1.2 (64-bit) |
| Legion of the Bouncy Castle Inc. | Bouncy Castle FIPS Java API | 1.0.2.1 |
| Yubico Login for Windows | Dual Factor Authentication YubiKey USB keys for dual factor authentication (optional) | Yubico-Login-for-Windows- 2.0.3-win64.msi |
| WS FTP | Secure file transfer | 12.8.0 |

COTS Hardware

| Manufacturer | Hardware | Model/Version |
|--------------------|---|---|
| Dell | EMS Server | PowerEdge T430, T440, T630, T550, R540 |
| Dell | Regional Results Data Comm Server | PowerEdge T430, T440, T630, T550, R540 |
| Dell | EMS Client or Standalone Workstation | Latitude 5520, 5530, 5580 (32GB Ram) OptiPlex 5040, 5050, 7020, XE3, XE4 |
| Dell | Trusted Platform Module (TPM) Chip 2.0 | Security device |
| Dell | Regional Results Client | Latitude 5520, 5530, 5580 |
| Toshiba | Regional Results Client | Tecra A50-C |
| Innodisk | USB EDC H2SE (16GB) for ExpressVote 2.1 | DEEUH1-16GI72AC1SB |
| Delkin | 2.0 USB Flash Drive (512MB, 1GB, 2GB, 4GB, 8GB) | N/A |
| Delkin | 3.0 USB Flash Drive (4GB, 8GB, 16GB, 32GB) | 6206, 6207, 6208, 6209 |
| Delkin | 3.0 USB Flash Drive (256GB) data transfer | 6210 |
| Delkin | USB Embedded 2.0 Module Flash Drive for ExpressVote HW1.0 | MY08TQJ7A-RA000-D 8 GB MY16TNK7A-RA042-D/ 16 GB |
| Delkin | USB Embedded 2.0 Module Flash Drive for ExpressVote HW2.1 | MY16TNK7A-RA042-D/ 16 GB |
| Delkin | Compact Flash Memory Card (1GB) | CE0GTFHHK-FD038-D |
| Delkin | Compact Flash Memory Card (4GB) | CE04TQSF3-XX000-D |
| Delkin | Secure CF Card (2GB) | CE02TLQCK-FD000-D |
| Delkin | Secure CF Card (4GB) | CE04TLQCK-FD042-D |
| Delkin | CFast Memory Card (4GB) | BE04TRSJG-3N042-D |
| Delkin | Compact Flash Memory Card Reader/Writer | 6381 |
| Delkin | CFast Card (2GB, 4GB) | 380-00006 – 2GB, 380-00007 – 4GB |
| Delkin | CFast Card (8GB) | 380-010014-00, 380-10024-00 |
| Delkin | CFast Card Reader/Writer | 67417 |
| Cisco Firewall | Regional Results Security Firewall | ASA-5506-X, ASA-5508-X, ASA FPR-1010 |
| Cisco Router | Regional Results VPN Router | RV340 |
| D-link | network switch (1 GB Min) | DSG-1005G |
| YubiKey USB drive | Multi factor Authentication (optional) | 5A series |
| Lexar | CFast Card Reader/Writer | LRWCR1TBNA |
| CardLogix | Smart Card | CLXSU128kC7/ AED C7 |
| SCM Microsystems | Smart Card Writer | SCR3310 |
| Avid | Headphones | 86002 |
| iEi | Smart Card Reader | 91-10041-00 |
| Zebra Technologies | QR code scanner (Integrated) | DS457-SR20009, DS457-SR20004ZZWW, SE3307WA |
| Symbol | QR Code scanner (External) | DS9208 |

| Manufacturer | Hardware | Model/Version |
|-------------------|---|-----------------------------------|
| Brother | DS450, DS850, DS950 Report Printer | B6400, HL-EX415DWVS |
| Dell | DS450 Report Printer | S2810dn |
| OKI | DS450, DS850, and DS950 Report Printer | B431dn, B431d, B432DN |
| OKI | DS450 and DS850 Audit Printer | Microline 420 |
| APC | DS450 UPS | Back-UPS Pro 1500, Smart-UPS 1500 |
| APC | DS850 UPS | Back-UPS RS 1500, Pro 1500 |
| CyberPower | DS850 and DS950 UPS | OR1500PFCLCD |
| CyberPower | DS450, DS850, and DS950 UPS | CP1500PFCLCD |
| Tripp Lite | DS450 Surge Protector | SPIKECUBE |
| Seiko Instruments | Thermal Printer | LTPD-347B |
| NCR/Nashua | Paper Roll | 2320 |
| Fujitsu | Thermal Printer | FTP-62GDSL001, FTP-63GMCL153 |
| HP | Ink cartridge for DS450/DS850 ballot number imprinting | 87002 |
| HP | Ink cartridge for DS950 ballot number imprinting | HP C6195A |
| TDS | Ink cartridge for DS200/DS300 ballot stamping | 2278 |
| HP | Ink cartridge for DS300 risk-limiting audit number imprinting | 370-00538 |
| Pivot | Vote Summary Card Only Suppression Tray | 97-00359 |

System Limitations

This table provides the system limits that have been verified during testing.

| System Characteristic | Boundary or Limitation | Limiting Component |
|--|--|---------------------------|
| Max. precincts allowed in an election | 9,999 | Electionware |
| Max. candidates allowed per election | 10,000 | Electionware |
| Max. contests allowed in an election | 10,000 | Electionware |
| Max. contests allowed per ballot style | 500 or # of positions on ballot | N/A |
| Max. candidates (ballot choices) allowed per contest | 230 | Electionware |
| Max. number of parties allowed | General election: 75 Primary election: 30 (including nonpartisan party) | Electionware |
| Max. 'vote for' per contest | 230 | Electionware |
| Ballot formats | All paper ballots used in an election must be the same length. Voteable paper ballots must contain the same number of rows | Ballot scanning equipment |
| Max. ballot styles | 15,000 | Electionware |
| Max. ballots per batch | 1,500 | DS450/DS850/DS950 |
| Max. precinct types/groups | 25 (arbitrary) | Electionware |
| Max. precincts of a given type | 250 (arbitrary) | Electionware |
| Max. reporting groups | 14 | Electionware |
| Max. connections | 18 client connections | Electionware |

Component Limitations

ExpressVote

1. ExpressVote capacities exceed all documented limitations for the ES&S election management, vote tabulation and reporting system. For this reason, Election Management System and ballot tabulator limitations define the boundaries and capabilities of the ExpressVote system as the maximum capacities of the ExpressVote are never approached during testing.
2. ExpressVote does not support Massachusetts Group Vote.
3. ExpressVote does not support Universal Primary Contest.
4. ExpressVote does not support Multiple Target Cross Endorsement.
5. ExpressVote does not support 19-inch cards with ballot stubs.
6. ExpressVote vote summary cards using the high-capacity barcode are limited to 630 or fewer oval positions.
7. ExpressVote does not support open primary elections in conjunction with high-capacity barcodes.

ExpressVote XL

1. ExpressVote XL capacities exceed all documented limitations for the ES&S election management, vote tabulation and reporting system. For this reason, Election Management System and ballot tabulator limitations define the boundaries and capabilities of the ExpressVote XL system as the maximum capacities of the ExpressVote XL are never approached during testing.
2. ExpressVote XL does not offer open primary support based on the ES&S definition of Open Primary, which is the ability to select a party and vote based on that party.
3. In a General election, one ExpressVote XL screen can hold 32 party columns if set up as columns or 16 party rows if set up as rows.
4. ExpressVote XL does not support Massachusetts Group Vote.
5. ExpressVote XL does not support Universal Primary Contest.
6. ExpressVote XL does not support 17-inch cards with ballot stubs or 19-inch cards with ballot stubs.
7. ExpressVote XL vote summary cards using the high-capacity barcode are limited to 630 or fewer oval positions.

ExpressTouch

1. ExpressTouch capacities exceed all documented limitations for the ES&S election management, vote tabulation and reporting system. For this reason, Election Management System limitations define the boundaries and capabilities of the ExpressTouch system as the maximum capacities of the ES&S ExpressTouch are never approached during testing.

2. ExpressTouch does not offer open primary support based on the ES&S definition of Open Primary, which is the ability to select a party and vote based on that party.
3. ExpressTouch does not support Massachusetts Group Vote.
4. ExpressTouch does not support Universal Primary Contest.
5. ExpressTouch does not support Multiple Target Cross Endorsement.

Electionware

1. Electionware software field limits were calculated based on an average character width for ballot and report elements. Some uses and conditions, such as magnified ballot views or combining elements on printed media or ballot displays, may result in field limits (and associated warnings) lower than those listed. Check printed media and displays before finalizing the election.
2. The Electionware Export Ballot Images function is limited to 250 districts per export.
3. Electionware supports the language and special characters listed in the System Overview, Attachment 1. Language special characters other than those on this list may not appear properly when viewed on equipment displays or reports.

Electionware Paper Ballot

1. The paper ballot code channel, which is the series of black boxes that appear between the timing track and ballot contests, limits the number of available ballot variations depending on how a jurisdiction uses this code to differentiate ballots. The code can be used to differentiate ballots using three different fields defined as: Sequence (available codes 1-16,300), Type (available codes 1-30), or Split (available codes 1-18).
2. For paper ballots, if Sequence is used as a ballot style ID, it must be unique electionwide and Split code will always be 1. In this case, the practical style limit would be 16,300.
3. The ExpressVote activation card has a ballot ID consisting of three different fields defined as: Sequence (available codes 1-16,300), Type (available codes 1-30), or Split (available codes 1-18).
4. Grid Portrait and Grid Landscape ballot types are New York specific and not for general use.

DS200

1. The DS200 configured for an early vote station does not support precinct level results reporting. An election summary report of tabulated vote totals is supported.
2. The DS200 storage limitation for write-in ballot images is 3,600 images. Each ballot image includes a single ballot face, or one side of one page.
3. Write-in image review requires a minimum 1GB of onboard RAM.
4. To successfully use the write-in report, ballots must span three or more vertical columns. If the column is greater than 1/3 of the ballot width (two columns or less), the write-in image will be too wide to print on the tabulator report tape.

DS300

1. The DS300 configured for an early vote station does not support precinct-level results reporting. An election summary report of tabulated vote totals is supported.
2. The DS300 storage limitation for write-in ballot images is 3,600 images. Each ballot image includes a single ballot face, or one side of one page.
3. To successfully use the write-in report, ballots must span three or more vertical columns. If the column is greater than 1/3 of the ballot width (two columns or less), the write-in image will be too wide to print on the tabulator report tape.

Functionality

VVSG 1.0 Supported Functionality Declaration

| Feature/Characteristic | Yes/No | Comment |
|--|--------|--|
| Voter Verified Paper Audit Trails | | |
| VVPAT | No | |
| Accessibility | | |
| Forward Approach | Yes | |
| Parallel (Side) Approach | Yes | |
| Closed Primary | | |
| Primary: Closed | Yes | |
| Open Primary | | |
| Primary: Open | Yes | ExpressVote XL and ExpressTouch do not offer open primary support based on the ES&S definition of Open Primary, which is the ability to select a party and vote based on that party. |
| Partisan & Non-Partisan: | | |
| Partisan & Non-Partisan: Vote for 1 of N race | Yes | |
| Partisan & Non-Partisan: Multi-member ("vote for N of M") board races | Yes | |
| Partisan & Non-Partisan: "vote for 1" race with a single candidate and write-in voting | Yes | |
| Partisan & Non-Partisan "vote for 1" race with no declared candidates and write-in voting | Yes | |
| Write-In Voting: | | |
| Write-in Voting: System default is a voting position identified for write-ins. | Yes | |
| Write-in Voting: Without selecting a write in position. | Yes | |
| Write-in: With No Declared Candidates | Yes | |
| Write-in: Identification of write-ins for resolution at central count | Yes | |
| Primary Presidential Delegation Nominations & Slates: | | |
| Primary Presidential Delegation Nominations: Displayed delegate slates for each presidential party | Yes | |
| Slate & Group Voting: one selection votes the slate. | Yes | |

| Feature/Characteristic | Yes/No | Comment |
|---|--------|--|
| Ballot Rotation: | | |
| Rotation of Names within an Office; define all supported rotation methods for location on the ballot and vote tabulation/reporting | Yes | |
| Straight Party Voting: | | |
| Straight Party: A single selection for partisan races in a general election | Yes | |
| Straight Party: Vote for each candidate individually | Yes | |
| Straight Party: Modify straight party selections with crossover votes | Yes | |
| Straight Party: A race without a candidate for one party | Yes | |
| Straight Party: "N of M race (where "N">1) | Yes | |
| Straight Party: Excludes a partisan contest from the straight party selection | Yes | |
| Cross-Party Endorsement: | | |
| Cross party endorsements, multiple parties endorse one candidate. | Yes | ExpressVote and ExpressTouch do not support Multiple Target Cross Endorsement. |
| Split Precincts: | | |
| Split Precincts: Multiple ballot styles | Yes | |
| Split Precincts: P & M system support splits with correct contests and ballot identification of each split | Yes | |
| Split Precincts: DRE matches voter to all applicable races. | Yes | |
| Split Precincts: Reporting of voter counts (# of voters) to the precinct split level; Reporting of vote totals is to the precinct level | Yes | |
| Vote N of M: | | |
| Vote for N of M: Counts each selected candidate if the maximum is not exceeded. | Yes | |
| Vote for N of M: Invalidates all candidates in an overvote (paper) | Yes | |
| Recall Issues, with options: | | |
| Recall Issues with Options: Simple Yes/No with separate race/election. (Vote Yes or No Question) | No | |
| Recall Issues with Options: Retain is the first option, Replacement candidate for the second or more options (Vote 1 of M) | No | |
| Recall Issues with Options: Two contests with access to a second contest conditional upon a specific vote in contest one. (Must vote Yes to vote in 2 nd contest.) | No | |
| Recall Issues with Options: Two contests with access to a second contest conditional upon any vote in contest one. (Must vote Yes to vote in 2 nd contest.) | No | |
| Cumulative Voting | | |

| Feature/Characteristic | Yes/No | Comment |
|--|--------|--|
| Cumulative Voting: Voters are permitted to cast, as many votes as there are seats to be filled for one or more candidates. Voters are not limited to giving only one vote to a candidate. Instead, they can put multiple votes on one or more candidate. | No | |
| Ranked Order Voting | | |
| Ranked Order Voting: Voters can write in a ranked vote. | Yes | Ballots can be formatted for Ranked Order Voting and the system supports export of CVR data for processing of Ranked Order Voting Rounds |
| Ranked Order Voting: A ballot stops being counted when all ranked choices have been eliminated | Yes | Ballots can be formatted for Ranked Order Voting and the system supports export of CVR data for processing of Ranked Order Voting Rounds |
| Ranked Order Voting: A ballot with a skipped rank counts the vote for the next rank. | Yes | Ballots can be formatted for Ranked Order Voting and the system supports export of CVR data for processing of Ranked Order Voting Rounds |
| Ranked Order Voting: Voters rank candidates in a contest in order of choice. A candidate receiving a majority of the first choice votes wins. If no candidate receives a majority of first choice votes, the last place candidate is deleted, each ballot cast for the deleted candidate counts for the second choice candidate listed on the ballot. The process of eliminating the last place candidate and recounting the ballots continues until one candidate receives a majority of the vote | No | |
| Ranked Order Voting: A ballot with two choices ranked the same, stops being counted at the point of two similarly ranked choices. | Yes | Ballots can be formatted for Ranked Order Voting and the system supports export of CVR data for processing of Ranked Order Voting Rounds |
| Ranked Order Voting: The total number of votes for two or more candidates with the least votes is less than the votes of the candidate with the next highest number of votes, the candidates with the least votes are eliminated simultaneously and their votes transferred to the next-ranked continuing candidate. | No | |
| Provisional or Challenged Ballots | | |
| Provisional/Challenged Ballots: A voted provisional ballots is identified but not included in the tabulation, but can be added in the central count. | Yes | |
| Provisional/Challenged Ballots: A voted provisional ballots is included in the tabulation, but is identified and can be subtracted in the central count | Yes | |

| Feature/Characteristic | Yes/No | Comment |
|---|--------|--|
| Provisional/Challenged Ballots: Provisional ballots maintain the secrecy of the ballot. | Yes | |
| Overvotes (must support for specific type of voting system) | | |
| Overvotes: P & M: Overvote invalidates the vote. Define how overvotes are counted. | Yes | |
| Overvotes: DRE: Prevented from or requires correction of overvoting. | Yes | |
| Overvotes: If a system does not prevent overvotes, it must count them. Define how overvotes are counted. | Yes | |
| Overvotes: DRE systems that provide a method to data enter absentee votes must account for overvotes. | Yes | |
| Undervotes | | |
| Undervotes: System counts undervotes cast for accounting purposes | Yes | |
| Blank Ballots | | |
| Totally Blank Ballots: Any blank ballot alert is tested. | Yes | |
| Totally Blank Ballots: If blank ballots are not immediately processed, there must be a provision to recognize and accept them | Yes | |
| Totally Blank Ballots: If operators can access a blank ballot, there must be a provision for resolution. | Yes | |
| Networking | | |
| Wide Area Network – Use of Modems | No | |
| Wide Area Network – Use of Wireless | No | |
| Local Area Network – Use of TCP/IP | No | |
| Local Area Network – Use of Infrared | No | |
| Local Area Network – Use of Wireless | No | |
| FIPS 140-2 validated cryptographic module | Yes | |
| Used as (if applicable): | | |
| Precinct counting device | Yes | DS200, DS300, ExpressTouch, ExpressVote XL |
| Central counting device | Yes | DS450, DS850, DS950 |

Baseline Certification Engineering Change Orders (ECO)

This table depicts the ECOs certified with the voting system:

| Change ID | Date | Component | Description | Inclusion |
|-----------|-----------|------------------------------|---|-----------|
| ECO 1160 | 12/7/2023 | USB Media | Release of new light blue USB 3.0 Flash Drives (4GB & 8GB) | Minor |
| ECO 1162 | 12/5/2023 | DS300 Ballot Bin | Release of a field repair kit for the DS300 Ballot Bin Handle. (091-10053-00) | Minor |
| ECO 1154 | 3/8/2024 | DS300 Ballot Box | Physical and performance enhancements. | Minor |
| ECO 1156 | 2/14/2024 | DS950 | Addition of an extension to the sensor arm which will trigger the sensor sooner when lowering tray. | Minor |
| ECO 1168 | 4/4/24 | ExpressVote XL | Introduction of latest ESD mitigation | Minor |
| ECO 1165 | 5/15/24 | Tote Bin for DS200 and DS300 | Security update to the tote bin | Minor |
| ECO 1174 | 4/3/2024 | DS300 | 1. Add motor cradle bracket under thermal report printer 2. Update geometry of report printer door | Minor |
| ECO 1176 | 4/25/24 | DS850 | Add Brother HL-EX415DWVS Printer | Minor |
| ECO 1177 | 4/25/24 | DS450 | Add Brother HL-EX415DWVS Printer | Minor |
| ECO 1178 | 4/25/24 | DS950 | Add Brother HL-EX415DWVS Printer | Minor |