



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: 9/24/2024 *



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).

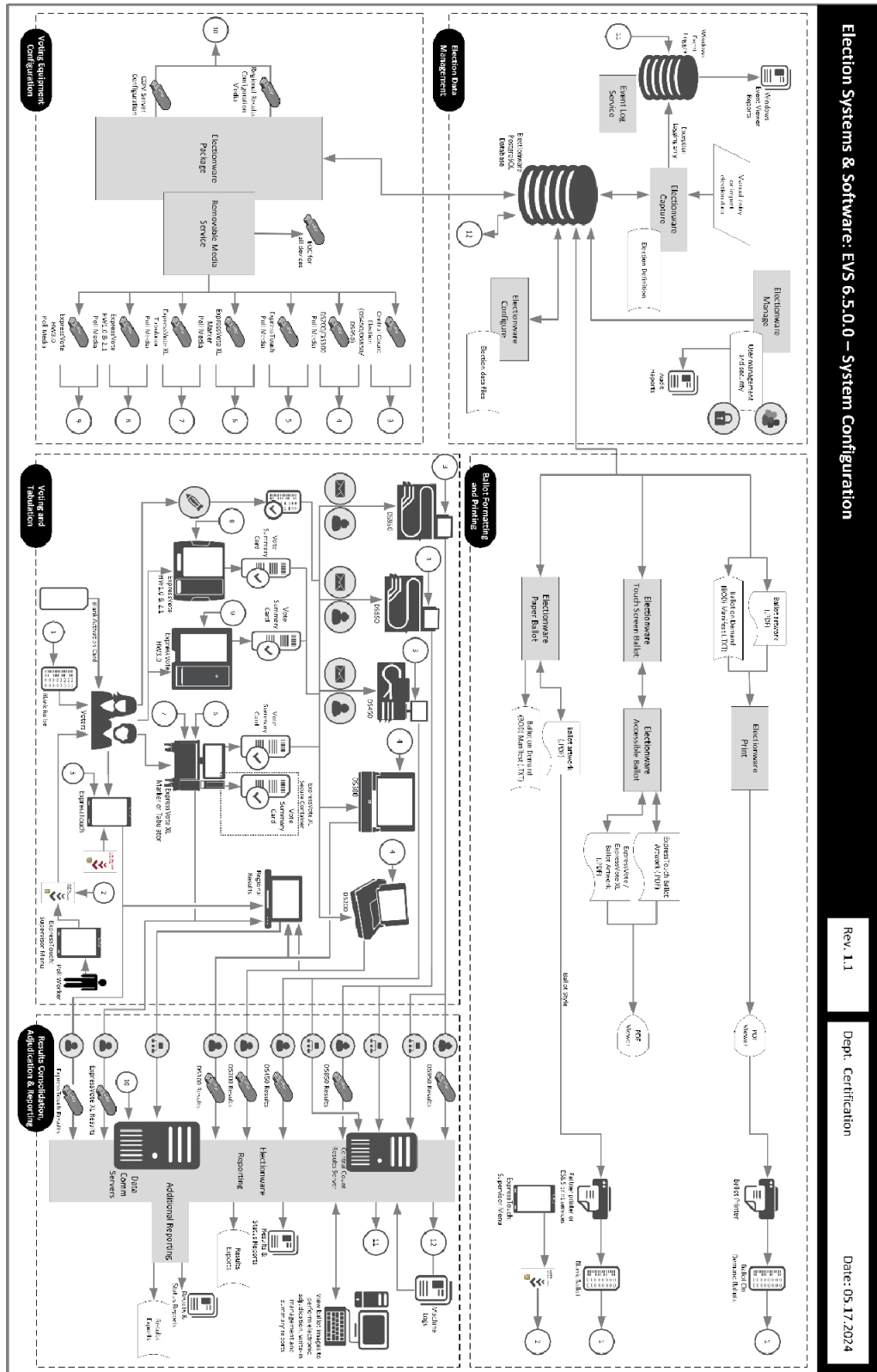
DS950® is a central scanner and tabulator that simultaneously scans the front and back of a paper ballot and/or vote summary card in any of four orientations for conversion of voter selection marks to electronic Cast Vote Records (CVR).

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	1.1.0.1*			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

*Note that the initial certification of EVS 6.5.0.0 featured Electionware Additional Reporting version 1.1.0.0. An Engineering Change Order, ECO-1188, produced an update to version 1.1.0.1

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)

Manufacturer	Application	Version
Kiwi Syslog Server	Remote Event Log Monitoring	9.8.1
Amyuni	Amyuni PDF Generator	5.5
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

Manufacturer	Hardware	Model/Version
Zebra Technologies	QR code scanner (Integrated)	DS457-SR20009, DS457-SR20004ZZWW, SE3307WA
Symbol	QR Code scanner (External)	DS9208
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

System Characteristic	Boundary or Limitation	Limiting Component
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	

Feature/Characteristic	Yes/No	Comment
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	
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	

Feature/Characteristic	Yes/No	Comment
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		
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		

Feature/Characteristic	Yes/No	Comment
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	
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
ESS-1168	4/4/24	ExpressVote XL	Introduction of latest ESD mitigation	Minor
ESS-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
ESS-1176	4/25/24	DS850	Add Brother HL-EX415DWVS Printer	Minor
ESS-1177	4/25/24	DS450	Add Brother HL-EX415DWVS Printer	Minor
ESS-1178	4/25/24	DS950	Add Brother HL-EX415DWVS Printer	Minor