United States Election Assistance Commission

Certificate of Conformance

Dominion Voting Systems & Democracy Suite 5.20

VVSG 2005 VER. I

EAC CERTIFIED

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 3.0* 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.

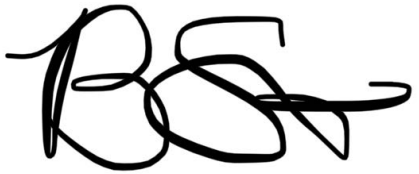
Product Name: Democracy Suite

Model or Version: 5.20

Name of VSTL: Pro V&V

EAC Certification Number: DVS-DemSuite5.20

Date Issued: February 4, 2025



Executive Director

Scope of Certification Attached

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 D-Suite 5.20 Voting System is a paper-based optical scan voting consisting of the following major components: The Election Management System (EMS), the ImageCast Central (ICC), the ImageCast Precinct (ICP and ICP2), the ImageCast Evolution (ICE), the ImageCast X ballot marking device (BMD), and ImageCast X VVPAT BMD. The D-Suite 5.20 Voting System configuration is a modification from the EAC approved D-Suite 5.17 system configuration.

Version History

Version Number	Description of Changes	Date
1.0	Initial release	February 4, 2025
1.1	Updated component list to remove PCOS-321C	October 26, 2026

System Modifications:

The list below includes changes between this Democracy Suite 5.20 system and the baseline of the Democracy Suite 5.17 Voting System:

GENERAL SYSTEM CHANGES

- System and security updates to Democracy Suite:
  - Upgrade to Windows 11, Windows Server 2022 and SQL Server 2022
  - Updated system components to OpenSSL 3.0
  - Added support for CardLogix Smart Cards
- Added support for Rank Choice Voting.
- ICX USB Whitelist is now maintained as part of a configuration file.
- Added an option to ensure short write-in entries (3 characters or less) can register when scanned.
- Added an option to add Batch ID's to Precinct Batch Cards
- Added ability to specify color for paper ballot and screen ballot headers based on Ballot Group.

EMS

- Adjudication Databases now included in system back-ups.
- Election Event Designer: Added ability to sort and group results by Ballot Groups in the Ballot Types Report
- Election Event Designer: Added support for New Hampshire Ballot Style
- Results Tally & Reporting: The following reports are now WCAG compliant (for accessibility):
  - Precinct Canvass
  - District Canvass
  - District Total Canvass
  - Summary Report (2 column)
- Results Tally & Reporting: Reporting Improvements:
  - Added option to filter Machine Report by Tabulator Type
  - District Total Canvass - Added voter privacy threshold.
  - Added an option to include or exclude unincorporated areas in the SOVC Report
  - Added ability to export and import Reporting Profiles for all reports in the Results Reporting Module
  - Prevented a blank write-in value from appearing in all contests on canvass reports where write-ins do not exist
  - Updated sort order on District Canvass and District Total Canvass reports to follow global order
- Results Tally & Reporting: The Automatic Results loading screen now has an option to allow users to set the results to 'Skip Adjudication'.
- Results Tally & Reporting: All Adjudication reports are now generated in RTR.
- Results Tally & Reporting: Added new Election Readiness Dashboard.

ADJ

- Updated User Interface for the Adjudication application.
- User Management is now based within the application and can be specific to the election, rather than workstation/ workgroup based.
- Ballot processing can now be done in two different ways:
    - Assign entire batch to single user(s).
    - Next available ballot goes to next available workstation.
- Outstack criteria can now be defined by tabulator type or tabulator and counting group, allowing users to adjudicate central count/mail ballots for one set of criteria and ballots tabulated within polling places and vote centers using another set of criteria.
- Added new Adjudication Statistics Report.

ICP

- Ensure that the Total Result File contains information that the poll is closed.
- Removed ability to print Zero report after ballots have been cast.

ICC

- Updated User Interface for the central scanning application.
- Loading and configuration of election files has been enhanced, users are now only required to browse to the appropriate set of election files.
- Batches can be spoiled through the application now.
- New Status Report introduced, that allows users to view the list of batches and total ballots within batches that have been scanned on any tabulator, without viewing results.

ICE

- Added support for multi-page TIFF images.

ICP2

- Added support for multi-page TIFF images.

ICX

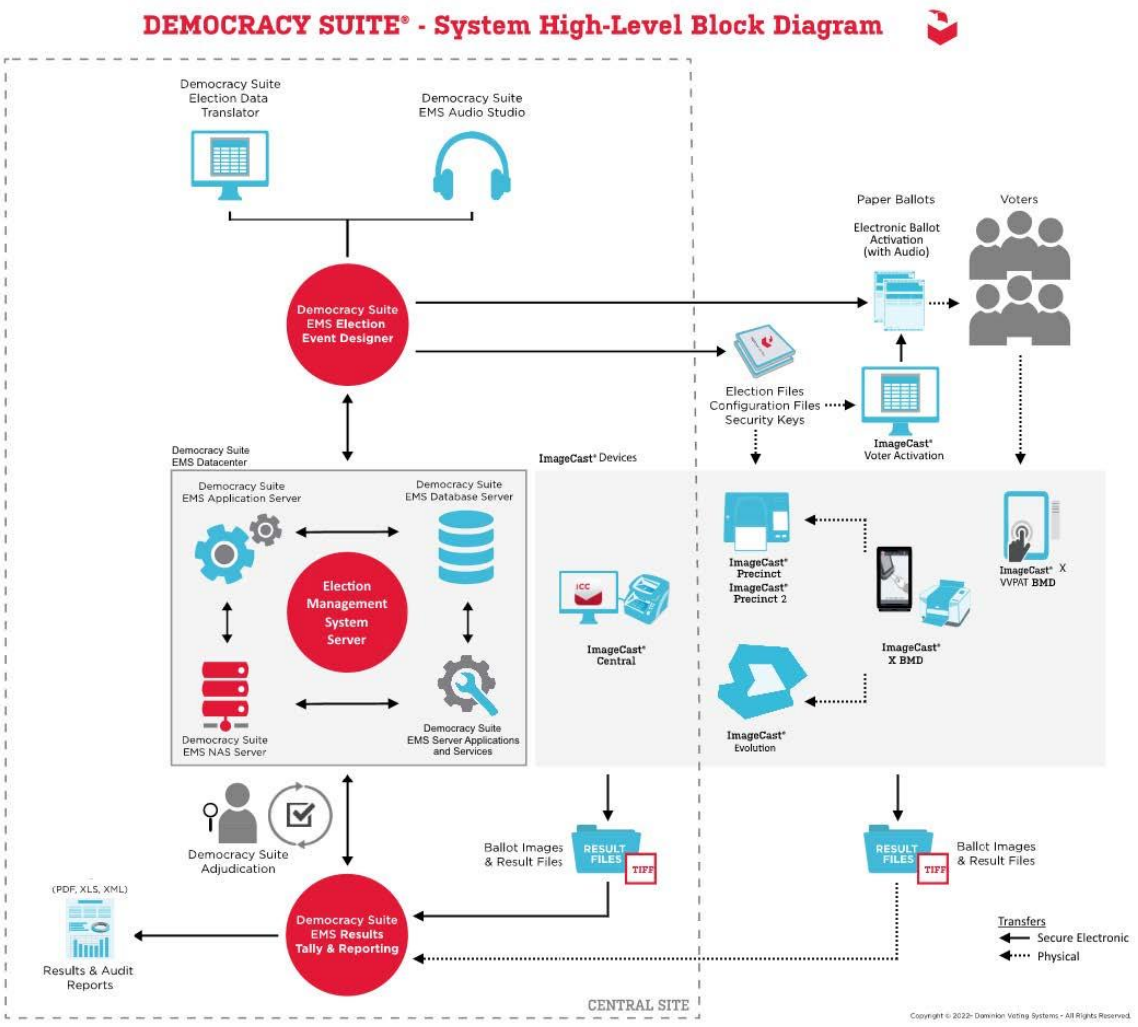
- Added ability to perform a Hardware Sound Test from the Poll Administration and Technician Menus.
- Updated option to print line between contests on VVPAT tape to print a dashed line instead of a full line when switched on.
- Allow a voter making a straight party selection to split the ticket without having to deselect their party choice.

Language capability:

This section provides information describing the languages supported by the various components of the system.

Language	ICE	ICP	ICP2	ICX
Alaska Native	No	Yes, if using Latin alphabet	No	No
Arabic	Yes	No	Yes	Yes
Apache	No	Audio only	No	No
Bengali	Yes	Yes	Yes	Yes
Burmese	No	No	Yes	No
Cantonese	Audio only	No	No	No
Chinese	Yes	Yes	Yes	Yes
English	Yes	Yes	Yes	Yes
Inuit	No	Yes, if using Latin alphabet	No	No
Filipino	Yes	Yes	Yes	No
French	No	Yes	Yes	Yes
Gujarati	Yes	No	Yes	No
Haitian Creole	Yes	No	Yes	No
Hindi	Yes	Audio only	Yes	Yes
Hmong	Yes	No	Yes	No
Ilocano	Yes	No	Yes	No
Indonesian	No	No	Yes	No
Japanese	Yes	Yes	Yes	Yes
Jicarilla	No	Audio only	No	No
Keres	No	Audio only	No	No
Khmer	Yes	Audio only	Yes	No
Korean	Yes	Yes	Yes	Yes
Laotian	Yes	No	Yes	No
Mien	No	No	Yes	No
Mongolian	No	No	Yes	No
Nepali	Yes	No	Yes	No
Navajo	No	Audio only	No	No
Mandarin	Audio only	No	No	No
Polish	Yes	No	Yes	No
Punjabi	Yes	No	Yes	No
Russian	Yes	No	Yes	No
Seminole	No	Audio only	No	No
Spanish	Yes	Yes	Yes	Yes
Tagalog	Yes	No	Yes	Yes
Tamil	Yes	No	Yes	No
Telugu	Yes	No	Yes	No
Thai	Yes	Audio only	Yes	Yes
Tolowa	No	No	Yes	No
Towa	No	Audio only	No	No
Ute	No	Audio only	No	No
Ukrainian	Yes	No	Yes	No
Urdu	Yes	No	Yes	No
Vietnamese	Yes	Yes	Yes	Yes
Yuman	No	Audio only	No	No
Yurok	No	No	Yes	No

Democracy Suite 5.20 System Diagram



Components Included:

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

Voting System Software Components:

System Component	Software or Firmware Version	Operating System or COTS	Comments
EMS Election Event Designer (EED)	5.20.2.6	Windows 11 Pro	EMS
EMS Results Tally and Reporting (RTR)	5.20.2.6	Windows 11 Pro	EMS
EMS Application Server	5.20.2.6	Windows Server 22 Windows 11 Pro	EMS
EMS File System Service (FSS)	5.20.2.6	Windows 11 Pro	EMS
EMS Audio Studio (AS)	5.20.2.6	Windows 11 Pro	EMS
EMS Data Center Manager (DCM)	5.20.2.6	Windows Server 22 Windows 11 Pro	EMS
EMS Election Data Translator (EDT)	5.20.2.6	Windows 11 Pro	EMS
ImageCast Voter Activation (ICVA)	5.20.2.6	Windows 11 Pro	EMS
EMS Adjudication (ADJ)	5.20.2.4	Windows 11 Pro	EMS
File System Server	5.20.2.6	Windows Server 22 Windows 11 Pro	EMS
Database Server	5.20.2.6	Windows Server 22 Windows 11 Pro	EMS
EMS Logger	5.20.2.6	Windows Server 22 Windows 11 Pro	EMS
NAS Server	5.20.2.6	Windows Server 22 Windows 11 Pro	EMS
Smart Card Helper Service (SCHS)	5.20.2.6	Windows 11 Pro	EMS
ICP Application	5.20.2.3	uClinux	ICP
ICP2 Application	5.20.2.2	Linux	ICP2
ICE Application	5.20.2.3	Ubuntu Linux	ICE
ImageCast Central Application	5.20.2.6	Windows 11 Pro	ICC
ICX with BMD Application	5.20.2.7	Android 8.1.0-2.5.2	ICX
ICX VVPAT BMD Application	5.20.2.7	Android 8.1.0-2.5.2	ICX

Voting System Platform:

System Component	Version	Operating System or COTS	Comments
Microsoft Windows Server	2022	Unmodified COTS	EMS Server SW Component
Microsoft Windows	11 Professional	Unmodified COTS	EMS Client/Server SW Component
.NET Framework	3.5	Unmodified COTS	EMS Client/Server SW Component
.NET Framework	4.8	Unmodified COTS	EMS Client/Server SW Component
Microsoft Visual C++ 2015 Redistributable	2015	Unmodified COTS	EMS Client/Server SW Component
Microsoft Visual C++ 2013 Redistributable	2013	Unmodified COTS	EMS Client/Server SW Component

System Component	Version	Operating System or COTS	Comments
Microsoft SQL Server 2022 Standard	2022 Standard	Unmodified COTS	EMS Client/Server SW Component
Cepstral Voices	6.2.3	Unmodified COTS	EMS Client/Server SW Component
Arial Narrow Fonts	2.37a	Unmodified COTS	EMS Client/Server SW Component
Dallas 1-Wire Device Driver	4.05	Unmodified COTS	EMS Client/Server SW Component
Adobe Reader DC	AcrobatDC	Unmodified COTS	EMS Client/Server SW Component
Microsoft Access Database Engine	2010	Unmodified COTS	EMS Client/Server SW Component
Open XML SDK 2.0 for Microsoft Office	2.0	Unmodified COTS	EMS Client/Server SW Component
Infragistics NetAdvantage Win Forms	2011.1	Unmodified COTS	EMS SW Platform
Infragistics NetAdvantage Win Ultimate	2013.1	Unmodified COTS	EMS SW Platform
Infragistics NetAdvantage WPF	2012 Vol. 1	Unmodified COTS	EMS SW Platform
TX Text Control Library for .NET	16.0	Unmodified COTS	EMS SW Platform
SOX	14.3.1	Unmodified COTS	EMS SW Platform
NLog	1.0.0.505	Unmodified COTS	EMS SW Platform
iTextSharp	5.0.5	Unmodified COTS	EMS SW Platform
ICSharpCode SharpZipLib	0.86.0	Unmodified COTS	EMS SW Platform
ISONewspaper	30.4	Unmodified COTS	EMS SW Platform
SQLite	1.0.116.1	Unmodified COTS	EMS SW Platform
Lame	3.99.4	Unmodified COTS	EMS SW Platform
Speex	1.0.4	Unmodified COTS	EMS SW Platform
MS Prism	4.0.0	Unmodified COTS	EMS SW Platform
MS Prism Unity Extensions	4.0.0	Unmodified COTS	EMS SW Platform
Enterprise Library	5.0	Unmodified COTS	EMS SW Platform
Entity Framework	6.1.3	Unmodified COTS	EMS SW Platform
newtonsoft.ison	13.0.1	Unmodified COTS	EMS SW Platform
Ogg Vorbis decoder - oggdec	1.10.1	Unmodified COTS	EMS SW Platform
Ogg Vorbis encoder - oggenc2	2.88	Unmodified COTS	EMS SW Platform
Prism.Mvvm	1.1.1	Unmodified COTS	EMS SW Platform
SQLSysClrTypes.msi	Microsoft System CLR Types for SQL	Unmodified COTS	EMS SW Platform
SSH.Net	2014.4.6.Beta2	Unmodified COTS	EMS SW Platform
System Windows.Interactivity. WPF	2.0.20525	Unmodified COTS	EMS SW Platform
TX Text Control 16.0.NET	16.0	Unmodified COTS	EMS SW Platform
Visual Studio 2022 Professional	2022 Professional	Unmodified COTS	EMS SW Platform
Wix	4.0.1	Unmodified COTS	EMS SW Platform
Wix toolset Visual Studio Extension	4.0.1	Unmodified COTS	EMS SW Platform
Spreadsheetlight	3.4.3	Unmodified COTS	EMS SW Platform
Open SSL	1.0.2K	Unmodified COTS	ICP
OpenSSL FIPS Object Module	2.0.14	Unmodified COTS	ICP
Colilo	200400221	Unmodified COTS	ICP
uClinux tools	20040603	Unmodified COTS	ICP
uClinux dist	20070130 s	Modified COTS	ICP

System Component	Version	Operating System or COTS	Comments
Kernel (Linux)	2.6.30.9-dvs-37	Modified COTS	ICE
U-Boot	1.3.4	Modified COTS	ICE
BusyBox	1.20.2	Unmodified COTS	ICE
e2fsprogs	1.42.4	Unmodified COTS	ICE
Expat XML Parser	2.1.0	Unmodified COTS	ICE
Fontconfig	2.9.0	Unmodified COTS	ICE
Freetype	2.4.9	Unmodified COTS	ICE
I²C Tools for Linux	3.1.0	Unmodified COTS	ICE
JPEG library	8d	Unmodified COTS	ICE
libogg	1.3.0	Unmodified COTS	ICE
libPNG	1.5.10	Unmodified COTS	ICE
libusb	1.0.8	Unmodified COTS	ICE
libusb-compat	0.1.3	Unmodified COTS	ICE
log4cplus	1.0.4.1	Unmodified COTS	ICE
OpenSSL	3.0.9	Unmodified COTS	ICE
PPP	2.4.5	Unmodified COTS	ICE
quazip	0.7.6	Unmodified COTS	ICE
Qt Everywhere Linux	4.7.3	Unmodified COTS	ICE
skell	1.19	Unmodified COTS	ICE
SoundTouch	1.6.0	Unmodified COTS	ICE
speex	1.2rc1	Unmodified COTS	ICE
SQLite	3.7.13	Unmodified COTS	ICE
Sysfs Utilities	2.1.0	Unmodified COTS	ICE
TIFF library	4.0.1	Unmodified COTS	ICE
timezone	2012b	Unmodified COTS	ICE
USB ModeSwitch	1.2.4	Unmodified COTS	ICE
zlib	1.2.7	Unmodified COTS	ICE
Kernel	4.9.11	Modified COTS	ICP2
U-Boot	2017.03	Modified COTS	ICP2
OpenSSL	1.0.2j	Unmodified COTS	ICP2
OpenSSL	3.0.9	Unmodified COTS	ICP2
Logback	1.1.1-12	Unmodified COTS	ICX SW
Speex	1.2rc1	Unmodified COTS	ICX SW
GreenDAO	2.2.1	Unmodified COTS	ICX SW
GSON	2.8.4	Unmodified COTS	ICX SW
Zxing Core	3.4.0	Modified COTS	ICX SW
SoundTouch	1.9.2	Modified COTS	ICX SW
Android	8.1	Modified COTS	ICX SW
OGG	1.3.2	Unmodified COTS	ICX SW
SLF4J	1.7.29	Unmodified COTS	ICX SW
USB Serial	3.2	Unmodified COTS	ICX SW
OpenSSL	3.0.9	Unmodified COTS	ICX SW
OpenSSL	3.0.9	Unmodified COTS	ICC SW
Canon DR-G1130 TWAIN Driver	1.3.6458	Unmodified COTS	ICC SW
Canon DR-G2140 TWAIN Driver	1.2.7601	Unmodified COTS	ICC SW
Interscan HiPro 821dd	2.0.2.0	Unmodified COTS	ICC SW
Visual C++ 2015 Redistributable (x86)	2015	Unmodified COTS	ICC SW

Hardware Components:

System Component	Hardware Version	Proprietary or COTS	Comments
ImageCast Precinct (ICP)	PCOS-320A	Proprietary	Precinct Scanner
ImageCast Precinct (ICP)	PCOS-320C	Proprietary	Precinct Scanner
ImageCast Precinct 2 (ICP2)	PCOS-330A	Proprietary	Precinct Scanner
ImageCast Evolution (ICE)	PCOS-410A	Proprietary	Precinct Scanner
ICP Ballot Box	BOX-330A	Proprietary	Ballot Box
ICP Ballot Box	ElectionSource IM-COLLAPSIBLE	Proprietary	Ballot Box
ICP2 Ballot Box	BOX-350A	Proprietary	Ballot Box
ICP2 Ballot Box	ElectionSource IM-COLLAPSIBLE	Proprietary	Ballot Box
ICE Ballot Box	BOX-410A	Proprietary	Ballot Box
ICE Ballot Box	BOX-420A	Proprietary	Ballot Box
ICX Tablet (Classic)	aValue 15" Tablet (SID-15V-Z37)	COTS	Ballot Marking Device
ICX Tablet (Classic)	aValue 21" Tablet (SID-21V-Z37)	COTS	Ballot Marking Device
ICX Tablet (Prime)	aValue 21" Tablet (HID-21V-BTX) (Steel or Aluminum chassis)	COTS	Ballot Marking Device or Direct Recording Electronic
ICX UPS Inline EMI Filter	1.0	Proprietary	EMI Filter
Thermal Printer (VVPAT)	KFI 702-75250014A (V1)	COTS	Voter-verifiable paper audit trail (VVPAT)
Thermal Printer (VVPAT)	KFI 702-75250014C (V1-C)	COTS	Voter-verifiable paper audit trail (VVPAT)
Server	Dell PowerEdge R630	COTS	Standard Server
Server	Dell PowerEdge R640	COTS	Standard Server
Server	Dell PowerEdge R660	COTS	Standard Server
ICC Workstation HW	Dell OptiPlex 3050 All in One	COTS	
ICC Workstation HW	Dell OptiPlex 5270 All in One	COTS	
ICC Workstation HW	Dell OptiPlex 7440 All in One	COTS	
ICC Workstation HW	Dell OptiPlex 9010 All in One	COTS	
ICC Workstation HW	Dell OptiPlex 9020 All in One	COTS	
ICC Workstation HW	Dell OptiPlex 9030 All in One	COTS	
ICC Workstation HW	Dell Precision 3440 XE	COTS	
ICC Workstation HW	Dell Precision 3450 XE	COTS	
ICC Workstation HW	Dell Precision 3460 XE	COTS	
ICC Scanner	Canon imageFormula DR-G1130	COTS	Central Count Scanner
ICC Scanner	Canon imageFormula DR-M160 II	COTS	Central Count Scanner
ICC Scanner	Canon imageFormula DR-M260	COTS	Central Count Scanner
ICC Scanner	Canon imageFormula DR-G2140	COTS	Central Count Scanner
ICC Scanner	InoTec HiPro 821	COTS	Central Count Scanner
ICC Scanner	Dell Optiplex 7050	COTS	
ICC Scanner	Dell Optiplex 7060	COTS	
ICC Scanner	Dell Optiplex 7070	COTS	
ICC Scanner	Dell Optiplex XE3	COTS	
ICC Scanner	Dell Optiplex XE4	COTS	
ICC Scanner Monitor	Lenovo 10QXPAR1US	COTS	
ICC Scanner Monitor	Lenovo 11GCPAR1US	COTS	
ICC Scanner Monitor	Dell 2418HT Monitor	COTS	
ICC Scanner Monitor	Dell 2422H Monitor	COTS	
ICC Scanner Monitor	Dell 2424HT Monitor	COTS	
ICC Scanner Monitor	Planar PCT2235	COTS	

System Component	Hardware Version	Proprietary or COTS	Comments
Client Workstation HW and Express Server	Dell Precision 3430	COTS	
Client Workstation HW and Express Server	Dell Precision 3431	COTS	
Client Workstation HW and Express Server	Dell Precision 3440 XE	COTS	
Client Workstation HW and Express Server	Dell Precision 3450 XE	COTS	
Client Workstation HW and Express Server	Dell Precision 3460 XE	COTS	
Client Workstation HW and Express Server	Dell Precision T1700	COTS	
Client Workstation HW and Express Server	Dell Precision T3420	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude 3340	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude 3420	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude 3410 (SSD)	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude 3410 (HDD)	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude 3400	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude 3490	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude e3470	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude e3480	COTS	
ImageCast Voter Activation (ICVA)	Dell Latitude e7450	COTS	
ICX Printer	HP LaserJet Pro Printer M402dn	COTS	
ICX Printer	HP LaserJet Pro Printer M402dne	COTS	
ICX Printer	HP LaserJet Printer M404dn	COTS	
ICX Printer	HP LaserJet Printer M501dn	COTS	
ICX Printer	HP LaserJet Printer 4001dn	COTS	
ICX Printer	Avision Ap3061	COTS	
ICE Dual Monitor	AOC e1649FWU	COTS	

System Component	Hardware Version	Proprietary or COTS	Comments
ICE Dual Monitor	Display Logic LM15.6-USB-DV.B	COTS	
Monitor	Dell Monitor P2417H	COTS	
Monitor	Dell Monitor P2419H	COTS	
Monitor	Dell Monitor P2422H	COTS	
iButton Reader/Writer	Maxim iButton Programmer DS9490R#	COTS	
iButton to 1-Wire USB Adapter	Maxim iButton Programmer DS1402-RP8+	COTS	
iButton	Dallas Maxim DS1963S-F5+	COTS	
Black Key Ring Mount	DS9093A+	COTS	
Yellow Key Ring Mount	DS9093AY+	COTS	
Blue Key Ring Mount	DS9093AB+	COTS	
UPS	Tripp Lite SMART1500RMXL2U	COTS	
UPS	APC SMT1500 Smart-UPS	COTS	
UPS	APC SMT1500C Smart-UPS	COTS	
UPS	CyberPower PR1500LCD	COTS	
UPS	CyberPower PR1500LCD-VTVM	COTS	
Network Switch	Dell X1008	COTS	
Network Switch	Dell X1026	COTS	
Network Switch	Cisco 8-port Switch (CBS350-8T-E-2G)	COTS	
Network Switch	Cisco 24-port Switch (CBS350-24T-4G)	COTS	
Headphones	Cyber Acoustics ACM-70 and 70B	COTS	
Sip and Puff	Enabling Devices #972	COTS	
Sip and Puff straws	#970K	COTS	
Rocker (Paddle) Switch	Enabling Device #971	COTS	
Rocker (Paddle) Switch	AbleNet 10033400 (2x)	COTS	
Rocker (Paddle) Switch Cable	Hosa Technology YMM-261 (for use with AbleNet switches)	COTS	
CF Card Dual-Slot Reader	Lexar Professional USB 3.0	COTS	
CF Card Reader	Hoodman Steel USB3	COTS	
CF Card Reader	Kingston USB 3.0 High-Speed Media Reader	COTS	
CF Card Reader	Delkin Devices DDREADER-44	COTS	
CF Card Reader	IOGEAR GFR381	COTS	
CF Card	Centon C4-CM-CF-16.4	COTS	
CF Card	RiTek RDCF8G-233XMCB2-i	COTS	
CF Card	SanDisk SDCFHS-004G	COTS	
CF Card	SanDisk SDCFHS-008G	COTS	
SDHC Memory Card	Centon C4-ET-SDU-16.1	COTS	
SDHC Memory Card	Centon S4-ET-SDU3-8.1	COTS	
SDHC Memory Card	Centon S4-CM-SDHU1-8G-002	COTS	
SDHC Memory Card	Centon C4-CM-SDU1-8.2	COTS	
SDHC Memory Card	Apacer AJ3.148FSA.00105	COTS	
ACS PC-Linked Smart Card Reader	ACR38U	COTS	
A CS PC-Linked Smart Card Reader	ACR39U	COTS	
Smart Card Reader	HID Global Omnikey 3121	COTS	
USB Memory Device	Apricorn AEGIS Secure Key 3NX PN: ASK3-NX-128GB	COTS	

System Component	Hardware Version	Proprietary or COTS	Comments
USB Memory Device	Apricorn AEGIS Secure Key 3NX PN: ASK3-NX-32GB	COTS	
USB Memory Device	Centon (BiCS4) PN: C4-CT-U3P2-16.3	COTS	
USB Memory Device	Centon S4-CM-U3P2-16.1	COTS	
USB Memory Device (8 GB)	Apacer EH353-M APHA016GAG0CG-3TM	COTS	
USB Memory Device (16 GB)	Apacer EH353-M APHA016GAG0CG-3TM	COTS	
USB Memory Device	Centon (BiCS4) PN: C4-CT-U3P2-8.3	COTS	
USB Memory Device	Centon S4-CM-U3P2-8.1	COTS	
USB Memory Device	Verbatim 97087	COTS	
Smart Cards	ACS ACOS-6-64 v3090	COTS	
Smart Cards	ACOS-6-64 v3100	COTS	
Smart Cards	CardLogix C7	COTS	
Mini-Server Rack	StarTech RK1236BKF	COTS	
Rack Power Distribution Unit	APC AP9562	COTS	

System Limitations

This table depicts the limits the system has been tested and certified to meet.

Limit (Maximum Number)	Value (by configuration)		Limiting Component
	Express	Standard	
Ballot Positions	462**/292*	462**/292*	22-inch Ballot
Precincts in Election	250	1000	Memory
Contests in Election	250	1000	Memory
Candidates/Counters in Election	2500	10000	Memory
Candidates/Counters in Precinct	462**/240*	462**/240*	22-inch Ballot
Candidates/Counters in Tabulator	2500	10000	Memory
Ballot Styles in Election	750	3000	Memory
Ballot IDs in a tabulator	200	200	Memory
Contests in a Ballot Style	153**/38*	153**/38*	22-inch Ballot* 14-inch QR Ballot**
Candidates in a Contests	231**/240*	231**/240*	22-inch Ballot
Ballot Styles in a Precinct	5	5	Memory
Number of Parties	30	30	Memory
Vote For in Contest	30**/24*	30**/24*	22-inch Ballot
Supported Languages per Election	5	5	Memory
Number of Write-ins	462**/24*	462**/24*	22-inch Ballot

* Reflects the system limit for a ballot printed in landscape.

** Reflects the system limit for a ballot printed in portrait.

Functionality

2005 VVSG Supported Functionality Declaration

Feature/Characteristic	Yes/No	Comment
Voter Verified Paper Audit Trails		
VVPAT	YES	
Accessibility		
Forward Approach	YES	
Parallel (Side) Approach	YES	
Closed Primary		
Primary: Closed	YES	
Open Primary		
Primary: Open supported	YES	
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.	No	
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	
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:		

Feature/Characteristic	Yes/No	Comment
Cross party endorsements, multiple parties endorse one candidate.	YES	
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)	YES	
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 2nd 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 2nd 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	
Ranked Order Voting: A ballot stops being counting when all ranked choices have been eliminated	YES	
Ranked Order Voting: A ballot with a skipped rank counts the vote for the next rank.	YES	

Feature/Characteristic	Yes/No	Comment
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	YES	
Ranked Order Voting: A ballot with two choices ranked the same, stops being counted at the point of two similarly ranked choices.	YES	
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.	YES	
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	NO	
Provisional/Challenged Ballots: Provisional ballots maintain the secrecy of the ballot.	YES	
Overvotes		
Overvotes: Overvote invalidates the vote.	YES	
Overvotes – DRE / BMD: Prevented from or requires correction of overvoting.	YES	
Overvotes: If a system does not prevent overvotes, define how overvotes are counted.	YES	If allowed via voter override, overvotes are tallied separately.
Undervotes		
Undervotes: System counts undervotes cast for accounting purposes	YES	
Blank Ballots		
Totally Blank Ballots: Any blank ballot causes an alert.	YES	Precinct voters receive a warning; both precinct and central scanners will warn on blank ballots.

Feature/Characteristic	Yes/No	Comment
Totally Blank Ballots: If blank ballots are not immediately processed, there must be a provision to recognize and accept them	YES	Blank ballots are flagged. These ballots can be manually examined and then be scanned and accepted as blank; or precinct voter can override and accept.
Totally Blank Ballots: If operators can access a blank ballot, there must be a provision for resolution.	YES	Operators can examine a blank ballot, re-mark if needed and allowed, and then re-scan it.
Networking		
Wide Area Network – Use of Modems	NO	
Wide Area Network – Use of Wireless	NO	
Local Area Network – Use of TCP/IP	YES	Client/server only
Local Area Network – Use of Infrared	NO	
Local Area Network – Use of Wireless	NO	
Used as (if applicable):		
Precinct counting device	YES	ImageCast Precinct ImageCast Precinct 2 ImageCast Evolution ImageCast X VVPAT BMD
Central counting device	YES	ImageCast Central

Baseline Certification Engineering Change Orders (ECO)

ECO #	Description
100918	Added Dell OptiPlex XE4
100921	Added DELL Latitude 3340 ICVA Workstation
100924	Updated documentation to correct version of the SCAP Security Checklist as well as updated installation documents
100936	Updated user manual with optional instructions to update the firmware.
100942	Added Delkin CF / SD Memory Card Reader/Writer
100961	Added Dell PowerEdge R660
100974	Added Apacer SDHC Memory Card
100975	Added Apacer micro–SD Memory Card
100982	Added Dell P2424HT touch monitor for Canon and HiPro central scanner workstations
101007	Added IOGEAR GFR381 USB 3.0 Multi-Card Reader (CF and SD)