



United States Election Assistance Commission



Certificate of Conformance

Hart Verity Voting 2.8

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: Verity Voting

Model or Version: 2.8

Name of VSTL: SLI Compliance

EAC Certification Number: HRT-Verity-2.8

Date Issued: May 22, 2026

*Executive Director*

Scope of Certification Attached



## Scope of Certification

**Manufacturer:** Hart InterCivic, Inc.

**System Name:** Verity Voting 2.8

**Certificate:** HRT-Verity-2.8

**Laboratory:** SLI Compliance

**Standard:** VVSG 1.0

**Date:** May 22, 2026

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## Introduction

This document describes the scope of the validation and certification of the **Hart InterCivic, Inc., Verity Voting 2.8**. 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 component of a certified system is certified for use outside the certified configuration.

## Representation of EAC Certification

Manufacturers may not represent or imply that a voting system is certified unless they have received a Certificate of Conformance for that system. Statements regarding EAC certification in brochures, on websites, on displays, and on 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

Hart Verity Voting System 2.8 is a comprehensive paper-based voting system that includes all the software and hardware components to support paper-based in person and by-mail voting. Verity Voting 2.8 is a modification of Verity Voting 2.7.8 (which was certified by the EAC on March 9, 2026) and only adds the Vanguard 1.0, voting system's Vault device (which was certified as part of the Verity Vanguard 1.0 voting system to VVSG 2.0 standards on July 7, 2025.)

**Verity Voting 2.8** functions include:

- Defining the political divisions of the jurisdiction and organizing the election with its hierarchical structure, attributes, and associations.
- Defining the election events with their attributes such as the election name, date, and type, as well as contests, candidates, referendum questions, voting locations and their attributes.
- Preparing and producing ballots for polling place and absentee voting or by-mail voting.
- Preparing media for precinct voting devices and central count devices.
- Configuring and programming the **Verity Scan** and **Vanguard Vault** digital scanners for marked paper ballots and **Verity Touch Writer** printed vote records.

- Configuring and programming the **Verity Touch Writer** ballot marking devices (BMD).
- Configuring and programming the **Verity Touch Writer Duo Standalone** BMD devices.
- Configuring and programming the **Verity Controller** with **Verity Touch Writer Duo** BMD devices.
- Configuring and programming the **Verity Print** on-demand ballot production device.
- Transmission of the election results via **Verity Relay**.
- Transmission of the election results via **Verity Transmit**.
- Producing the election definition and auditing reports.
- Providing administrative management functions for user, database, networking, and system management.
- Import of the Cast Vote Records from **Verity Scan, Vanguard Vault, and Verity Central**.
- Preview and validation of the election results.
- Producing election results tally according to voting variations and election system rules.
- Producing a variety of reports of the election results in the desired format.
- Publishing of the official election results. Auditing of election results including ballot images and log files.

### **Verity Voting System 2.8 Components:**

**Verity Data** provides the user with controls for entering and proofing data and audio. Verity Data also performs validation on the exported information to ensure that it will successfully be imported into Verity Build.

**Verity Build** opens the election to proof data, view reports, and print ballots, and allows for configuring and programming the Verity Scan and Vanguard Vault digital scanners, and Verity Touch Writer and Controller/Touch Writer Duo BMD devices, Verity Print, as well as producing the election definition and auditing reports.

**Verity Central** is a high-speed, central digital ballot scanning system used for high-volume processing of ballots (such as vote by mail). The unit is based on COTS scanning hardware coupled with custom Hart-developed ballot processing application software which resides on an attached workstation.

**Verity Count** is an application that tabulates election results and generates reports. Verity Count can be used to collect and store all election logs from every Verity component/device used in the election, allowing for complete election audit log reviews.

**Verity Relay Receiving Station** is a remote transmission software application that receives election data transmissions sent by Verity Scan devices equipped with an optional Relay modem accessory

**Verity Transmit Receiving Station** is a remote transmission software application that receives election data transmissions sent by Verity Transmit devices.

**Verity Election Management** allows users with the Administrator role to import and manage election definitions. Imported election definitions are available through the Elections chevron in Build. Users can also delete, archive, and manage the election definitions.

**Verity User Manager** enables users with the correct role and permissions to create and manage user accounts within the Verity Voting system for the local workstation in a standalone configuration, or in a networked configuration.

**Verity Desktop** enables users with the correct roles to set the workstations' date and time, gather **Verity** application hash codes (in order to validate the correctness of the installed applications), and access to Windows desktop.

**Verity Print** is a pre-voting ballot production device for use by election officials and/or poll workers. Verity Print produces unmarked paper ballots. Print is paired with a commercial off-the-shelf printer to allow the user to select and print the desired ballot style based on the precinct and voter registration information.

**Verity Controller** is a polling place device designed for use by poll workers. Controller allows poll workers to initiate and manage voting sessions during a voting event. Voters will never use the Controller. Controller communicates with attached Verity Touch or Touch Writer Duo voting devices through a local network, which allows it to deliver electronic ballots to the device(s), spoil a ballot loaded on a device, and monitor the status of all connected devices. The devices are attached in a daisy-chain arrangement using USB cables. Up to 12 devices can be connected to one Controller.

The **Verity Touch Writer** is a standalone BMD which allows the user to use either the touchscreen interface or an Audio Tactile Interface (ATI). This device generates a machine-readable and human readable paper ballot, based on vote selections made.

The **Verity Touch Writer Duo** are BMDs that can be daisy-chained together, up to twelve devices, and are managed by poll workers using a Verity Controller. The Touch Writer Duo allows voters to utilize the touchscreen or optional Audio Tactile Interface to generate a machine-readable and human readable printed vote record, based on vote selections made.

The **Verity Touch Writer Duo Standalone** is a standalone BMD, which allows voters to utilize the touchscreen or optional Audio Tactile Interface to generate a machine-readable and human readable printed vote record, based on vote selections made.

**Verity Touch Writer Duo Go** is either a Verity Touch Writer Duo or Verity Touch Writer Duo Standalone used with a custom curbside carrier that makes it convenient to handle curbside voting.

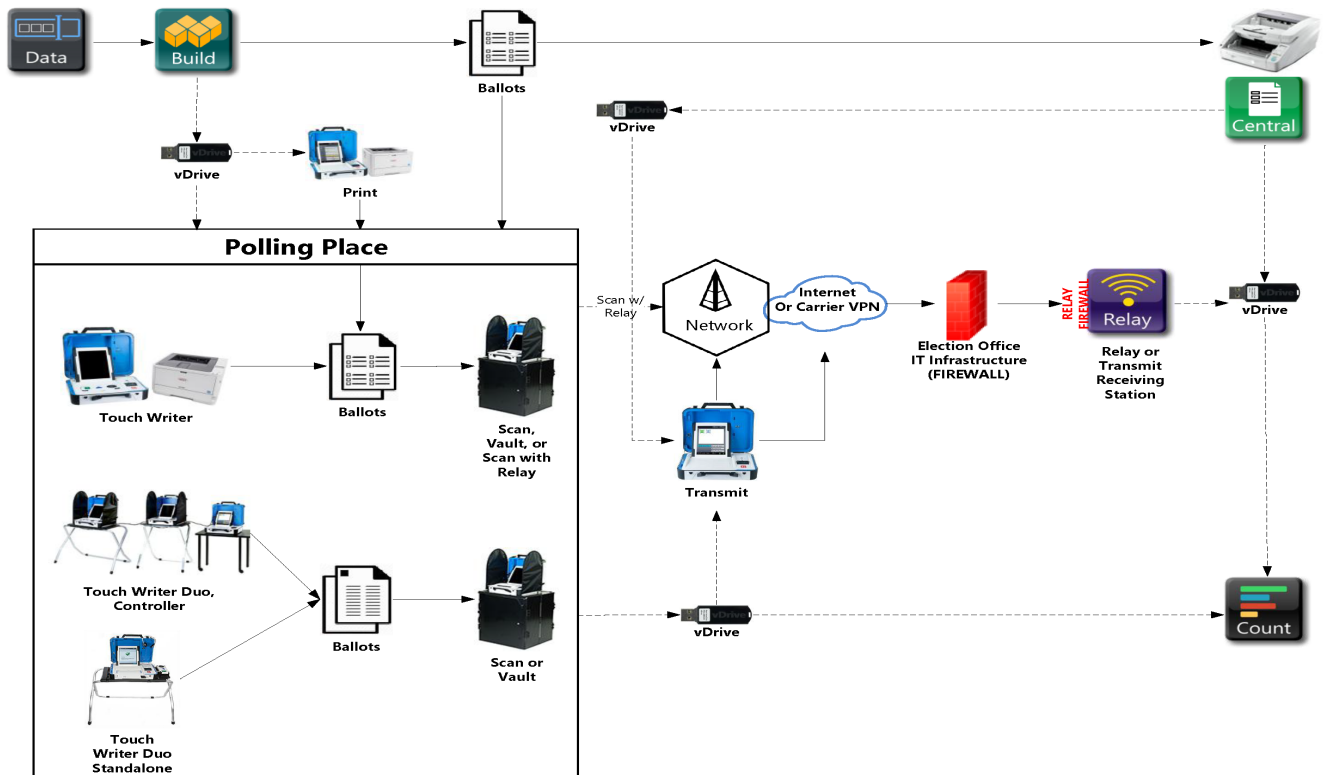
**Verity Scan** is a digital scan precinct ballot counter (tabulator) that is used in conjunction with an external ballot box. The unit is designed to scan marked paper ballots or Verity Touch Writer Duo printed vote records, interpret and record voter marks on the marked paper ballot or record voter selections on the printed vote records, and deposit the ballots into the secure ballot box.

**Verity Transmit** provides remote transmission capability. Utilizing an optional modem, Wi-Fi, or Ethernet accessory kit. Results from the Verity Scan and Verity Central are transmitted to the Verity Transmit Receiving Station workstation.

**Vanguard Vault** is a digital scan precinct ballot counter (tabulator) that is used in conjunction with an external ballot box. The unit is designed to scan marked paper ballots or Verity Touch Writer Duo printed vote records, interpret and record voter

marks on the marked paper ballot or record voter selections on the printed vote records, and deposit the ballots into the secure ballot box.

## System Diagram



## List of Modifications

The Verity 2.8 update solely introduces the Vanguard 1.0 Vault device, certified under VVSG 2.0 standards, to the Verity 2.7.8 system.

## Proprietary Software

System Component	Software or Firmware Version
Vanguard Vault - Precinct Optical Scanner Firmware	2.8.0
Verity Data - EMS Software	2.7.8
Verity Build - EMS Software	2.7.8
Verity Central - High-Speed Optical Scanner Software	2.7.8
Verity Count - Central Count Location Tabulation and Report Software	2.7.8
Verity Relay Receiving Station - Data Transmission Software	2.7.8
Verity Scan with Relay - Optical Scanner Firmware	2.7.8
Verity Scan - Optical Scanner Firmware	2.7.8
Verity Touch Writer - BMD Firmware	2.7.8
Verity Touch Writer Duo - BMD Firmware	2.7.8
Verity Touch Writer Duo Standalone - BMD Firmware	2.7.8
Verity Controller - Firmware	2.7.8
Verity Print - BMD Firmware	2.7.8

System Component	Software or Firmware Version
Verity Transmit - Data Transmission Software	2.7.8
Verity Transmit Receiving Station - Data Transmission Software	2.7.8

## Proprietary Hardware

Description	Hart Part Number	Version
Vanguard Vault	3007030	A
Vanguard Vault Ballot Box	3007060	A
Verity Controller	3006085	A
Verity Controller	3005825	B
Verity Print	3005356	E
Verity Print	3005856	B
Verity Print	3006095	A
Verity Scan (digital scanner)	3005350	I
Verity Scan (digital scanner)	3005800	B
Verity Scan (digital scanner)	3006080	A
Verity Scan Ballot Box	3005357	G
Verity Touch Writer (BMD)	3005352	H
Verity Touch Writer (BMD)	3005852	B
Verity Touch Writer (BMD)	3006090	A
Verity Touch Writer Duo (BMD)	3005700	D
Verity Touch Writer Duo (BMD)	3006070	C
Verity Touch Writer Duo Standalone (BMD)	3005730	C
Verity Touch Writer Duo Standalone (BMD)	3006075	C
Verity Touch Writer Duo Go	3005905	A
Verity Transmit	3006065	A
Verity Relay Accessory kit	3005251	A
Verity vDrive	2005535	B
Verity Key	2005361	A
Verity Touch Writer Accessible Voting Booth	3005359	D
Verity Touch Writer Duo Standard Voting Booth	3005358	D
Verity Touch Writer Duo Accessible Voting Booth with ATI Tray	3005801	A
Verity Touch Writer Duo Standalone Optional detachable ATI Kit	3005018	A

## COTS Software, Firmware, and Drivers

Manufacturer	Description	Version
<b>Workstations</b>		
BioPDF ApS	BioPDF	4.0.1000.16
Brother	HL-6400DWVS Driver	1.8.168.8
Canon	DR-G1100 Driver	1.0.4900
Canon	DR-G1130 Driver	1.0.4954
Canon	DR-G2000 Series Driver	1.1.11807.24001SP2
empira Software GmbH	PDFSharp	1.50.5147.0
HP	HP LaserJet Pro 4001 4002 4002 4004 PCL 6	8.00.2101.9302
Intel	Integrated Performance Primitives	v5.0

Manufacturer	Description	Version
<b>Workstations</b>		
Intel	Intel Graphics Driver	31.0.101.5522T
IntoPrint	SP1360(PCL6) Driver	1.0.0.0
Kodak	ISIS Driver – KODAK i5200, i5600, i5800	1.0.2633
Kodak	KODAK i5000 scanner	1.23
Maxim	1-Wire Driver	4.0.5
McAfee	Application Control for Devices ("Solidifier")	8.2.1-143
Microsoft	Help Viewer	2.3.28107
Microsoft	Microsoft SQL Server Standard 2019	15.0.2000.5
Microsoft	Unity	2.1.505.2
Microsoft	Visual Studio C++ 2008 Redistributable x86	9.0.30729
Microsoft	Visual Studio C++ 2010 Redistributable x64	10.0.30319
Microsoft	Visual Studio C++ 2010 Redistributable x86	10.0.30319
Microsoft	Visual Studio C++ 2013 Redistributable x64	12.0.40664
Microsoft	Visual Studio C++ 2013 Redistributable x86	12.0.30501
Microsoft	Visual Studio C++ 2015-2019 Redistributable x64	14.24.28127
Microsoft	Visual Studio C++ 2015-2019 Redistributable x86	14.24.28127
Microsoft	Windows 10 Enterprise 2019 LTSC	10.0.17763
Neodynamic ARL	Barcode Professional	4.0.3500.19
Nuance	Nuance Western OCR, Desktop, OEM	V20
NVIDIA	NVIDIA Quadro P400 drivers	26.21.14.4112
NVIDIA	NVIDIA Quadro T400 drivers	472.47
OKI Data	OKI USBDevice	1.0.0.0
OKI Data	OKI USBDevice	1.0.2.0
Open Source	Automapper	2.2.0.0
Open Source	Math.NET Numerics	2.6.1.30
Open Source	MVVMLight	4.0.23.37706
Open Source	Naudio	1.7.3.0
Open Source	Nhibernate	3.3.1.4000
Open Source	OTP-Sharp	1.0.0
Open Source	OWdotNET	0.9.0.0
Open Source	SoundTouch	1.7.1.0
Open Source	Zxing.NET	0.16.4.0
Prism Software, LLC	Prism	4.1.0.0
Realtek	Realtek High-Definition Audio Driver	6.0.9394.1
Telerik	Reporting	7.1.13.612
Telerik	UI for WPF	2024.4.1111.462

Manufacturer	Description	Version
<b>Workstations</b>		
TWAIN Working Group	Twacker 32	2.0.1
Websupergoo	ABCpdf	12.3.0.0
Manufacturer	Description	Version
<b>Verity Devices</b>		
ADLINK	SIO Driver	1.2.0.0
ADLINK	SMBUS Driver	1.3.0.0
BioPDF ApS	BioPDF	4.0.1000.16
Brother	Brother Printer Setting Tool	1.6.0075
Brother	Brother PJ-723 Thermal Printer Driver	1.8.663.1
Brother	Brother HL-L6400DWVS Printer Driver	1.8.168.8
empira Software GmbH	PDFSharp	1.50.5147.0
Intel	Integrated Performance Primitives	v5.0
Intel	Intel Graphics Driver	10.18.10.5069
Maxim	1-Wire Driver	4.0.5
McAfee	Application Control for Devices ("Solidifier")	8.2.1-143
Microsoft	SQLite	3.36.0
Microsoft	Unity	2.1.505.2
Microsoft	Windows 10 Enterprise 2019 LTSC	10.0.17763
Microsoft	Visual Studio C++ 2010 Redistributable x86	10.0.40219
Microsoft	Visual Studio C++ 2012 Redistributable x86	11.0.61033.0
Microsoft	Visual Studio C++ 2013 Redistributable x86	12.0.40660.0
Microsoft	Visual Studio C++ 2015-2019 Redistributable x86	14.29.30133.0
Neodynamic ARL	Barcode Professional	4.0.3500.19
Nuance	Nuance Western OCR, Desktop, OEM	V20
OKI Data	OKI USBDevice	1.0.0.0
OKI Data	OKI USBDevice	1.0.2.0
Open Source	Automapper	2.2.0.0
Open Source	Math.NET Numerics	2.6.1.30
Open Source	MVVMLight	4.0.23.37706
Open Source	NAudio	1.7.3.0
Open Source	NHibernate	3.3.1.4000
Open Source	OTP-Sharp	1.0.0
Open Source	OWdotNET	0.9.0.0
Open Source	SoundTouch	1.7.1.0
Open Source	Zxing.NET	0.16.4.0
Peripheral Dynamics, Inc	PageScan Scanner Driver	7.1.0.7
Peripheral Dynamics, Inc	PageScan USB Scanner Driver	4.0.0301.13

Manufacturer	Description	Version
<b>Verity Devices</b>		
PenMount Touch Solutions	PenMount Windows Universal Driver	2.4.6.387
Prism Software, LLC	Prism	4.1.0.0
Seiko Instruments	SII IFD50x Driver	2.5.0.0
Telerik	Reporting	7.1.13.612
Telerik	UI for WPF	2024.4.1111.462
Manufacturer	Description	Version
<b>Vanguard Vault Device</b>		
Brother	Brother HL-L6400DWVS Printer Driver	1.8.168.8
Brother	brUSBMon Printer Interface, x64	1.0.0.0
Brother	brUSBMon Printer Interface, x86	1.0.1.0
empira Software GmbH	PDFSharp	1.50.5147.0
HP	HP LaserJet Pro 4001 4002 4002 4004 PCL 6	8.00.2101.9302
HP	HP OfficeJet 200 Mobile Series	20.79.1.6738
Intel	Integrated Performance Primitives	2021.5.3.585
Intel	Intel Graphics Driver	31.0.101.2115
Maxim	1-Wire Driver	4.1.0
McAfee	McAfee Application Control for Devices ("Solidifier")	8.3.5.126
Microsoft	.NET Framework Runtime	4.8.1
Microsoft	Brother Ports Driver	01.02.00.00
Microsoft	Devcon	6.1.7600.16385
Microsoft	SQLite	3.45.3
Microsoft	Unity	2.1.505.2
Microsoft	Visual Studio C++ 2015-2022 Redistributable x64	14.36.32532.0
Microsoft	Visual Studio C++ 2015-2022 Redistributable x86	14.36.32532.0
Microsoft	Windows 10 Enterprise 2021 LTSC, configured for kiosk operation	10.0.19044
Neodynamic ARL	Barcode Professional	11.0.23.223
OKI Data	OKI C844 (PCL)	1.0.0.0
OKI Data	OKIWinIO	1.8.2.2
Open Source	Automapper	2.2.0.0
Open Source	MVVMLight	4.0.23.37706
Open Source	Math.NET Numerics	2.6.1.30
Open Source	Naudio	1.7.3.0
Open Source	Nhibernate	3.3.1.4000
Open Source	SoundTouch	1.7.1.0
Open Source	OTP-Sharp	1.0.0
Open Source	OWdotNET	0.9.0.0
Open Source	Tesseract Open Source OCR Engine	4.5.2.411

Manufacturer	Description	Version
<b>Vanguard Vault Device</b>		
Open Source	Zxing.NET	0.16.4.0
Open Source	Zxcvbn C#/.NET	7.0.92
Peripheral Dynamics, Inc	PageScan Scanner SDK	7.2.17
Peripheral Dynamics, Inc	PageScan USB Scanner Driver	4.0.0301.13
Peripheral Dynamics, Inc	PDIPrintScanCut Driver for TPH850 Printer	4.1.0.0
Prism Software, LLC	Prism	4.1.0.0
SECO	Chipset Device	10.1.19222.8341
SECO	CSME_SW_2306.4.10.0_Consumer	2306.4.10.0
SECO	HID Event Filter	2.2.2.1
SECO	Programmable Services Engine Windows Drivers	1.0.10099.968
SECO	Serial IO	5.123.1.1025
SECO	Smart Sound Technology	10.30.00.7090
Seiko Instruments	SII IFD50x Driver	2.5.0.0
Telerik	Reporting	18.1.24.709

## COTS Hardware

Description	Component Type
<b>Verity Data/Build</b>	
Brother HL-EX415 Series - HL-EX415DWVS	Printer
Brother HL-L6400 Series - HL-L6400DWVS	Printer
HP 1405-8GV3 8-port Ethernet Switch	Switch
HPE R8R45A 8-port Ethernet Switch	Switch
HP LaserJet Pro 4001dn Series	Printer
HP Z2 SFF G9	Workstation
HP Z240	Workstation
HP Z4 G4	Workstation
IntoPrint SP1360	Ballot Printer
OKI Data B431d	Report printer
OKI Data B432dn Mono Printer	Report and Ballot Printer
OKI Data C831dn	Color Printer
OKI Data C844dn	Color Printer
OKI Data C911dn	Color Printer
OKI Data C931e	Color Printer
VinPower Digital 23-target USB Duplicator USBShark-23-BK	USB Duplicator
VinPower Digital 23-target USB Duplicator USBShark-7T-BK- VinPower USBDupeBoxES-23T	USB Duplicator
VinPower Digital 7-target USB Duplicator USBShark-7T-BK	USB Duplicator
Description	Component Type
<b>Verity Central</b>	
Brother HL-EX415 Series - HL-EX415DWVS	Printer

Description	Component Type
<b>Verity Central</b>	
Brother HL-L6400 Series - HL-L6400DWVS	Printer
Canon DR-G1100	High-Speed Scanner
Canon DR-G1130	High-Speed Scanner
Canon DR-G2110	High-Speed Scanner
Canon DR-G2140	High-Speed Scanner
HP 1405-8GV3 8-port Ethernet Switch	Switch
HPE R8R45A 8-port Ethernet Switch	Switch
HP LaserJet Pro 4001dn Series	Printer
HP Z2 SFF G9	Workstation
HP Z240	Workstation
HP Z4 G4	Workstation
OKI Data B431d Mono Printer	Report printer
OKI Data B432dn Mono Printer	Report printer

Description	Component Type
<b>Verity Count</b>	
Brother HL-EX415 Series - HL-EX415DWVS	Printer
Brother HL-L6400 Series - HL-L6400DWVS	Printer
HP 1405-8GV3 8-port Ethernet Switch	Switch
HPE R8R45A 8-port Ethernet Switch	Switch
HP LaserJet Pro 4001dn Series	Printer
HP Z2 SFF G9	Workstation
HP Z240	Workstation
HP Z4 G4	Workstation
OKI Data B431d Mono Printer	Report printer
OKI Data B432dn Mono Printer	Report printer

Description	Component Type
<b>Verity Relay Receiving Station</b>	
Brother HL-EX415 Series - HL-EX415DWVS	Printer
Brother HL-L6400 Series - HL-L6400DWVS	Printer
HP LaserJet Pro 4001dn Series	Printer
HP Z2 SFF G9	Workstation
HP Z240	Workstation
HP Z4 G4	Workstation
OKI Data B431d Mono Printer	Report printer
OKI Data B432dn Mono Printer	Report printer

Description	Component Type
<b>Verity Transmit Receiving Station</b>	
Brother HL-EX415 Series - HL-EX415DWVS	Printer
Brother HL-L6400 Series - HL-L6400DWVS	Printer
HP LaserJet Pro 4001dn Series	Printer
HP Z2 SFF G9	Workstation

Description	Component Type
HP Z240	Workstation
HP Z4 G4	Workstation
OKI Data B431d Mono Printer	Report printer
OKI Data B432dn Mono Printer	Report printer

Description	Component Type
<b>Verity Print</b>	
Brother HL-EX415 Series - HL-EX415DWVS	Printer
Brother HL-L6400 Series - HL-L6400DWVS	Printer
HP LaserJet Pro 4001dn Series	Printer
OKI Data B431d Mono Printer	Report printer
OKI Data B432dn Mono Printer	Report and Ballot Printer
OKI Data C831dn	Color Printer
OKI Data C844dn	Color Printer
Motorola/Zebra DS4308 or DS4608 - Optional AutoBallot barcode scanner	AutoBallot Scanner

Description	Component Type
<b>Verity Scan</b>	
MultiTech MTD-MNA1-2.0 - Optional Relay Accessory kit (4G LTE Cat-M1)	Modem

Description	Component Type
<b>Verity Controller</b>	
Motorola/Zebra DS4308 or DS4608 - Optional AutoBallot barcode scanner kit	AutoBallot Scanner

Description	Component Type
<b>Verity Touch Writer</b>	
Brother HL-EX415 Series - HL-EX415DWVS	Printer
Brother HL-L6400 Series - HL-L6400DWVS	Printer
Duracell UPS DR660PSS	Uninterruptible Power System
EATON UPS SP1500	Uninterruptible Power System
HP LaserJet Pro 4001dn Series	Printer
Motorola/Zebra DS4308 or DS4608 - Optional AutoBallot barcode scanner kit	AutoBallot Scanner
OKI Data B431d Mono Printer	Report printer
OKI Data B432dn Mono Printer	Report and Ballot Printer
V7 - HA300-2NP or HA310-2NP	Headphones

Description	Component Type
<b>Touch Writer Duo</b>	
Brother PJ700 Series Thermal Printer - PJ723-C149	Thermal Printer
Brother PJ700 Series Thermal Printer - PJ723-C149-F	Thermal Printer
Brother PJ800 Series Thermal Printer - PJ823-C149	Thermal Printer
V7 HA300-2NP or HA310-2NP	Headphones

Description	Component Type
<b>Verity Touch Writer Duo Standalone</b>	
Brother PJ700 Series Thermal Printer - PJ723-C149-F	Thermal Printer
Brother PJ700 Series Thermal Printer - PJ723-C149	Thermal Printer
Brother PJ800 Series Thermal Printer - PJ823-C149	Thermal Printer
Motorola/Zebra DS4308 or DS4608 - Optional AutoBallot barcode scanner kit	AutoBallot Scanner
V7 HA300-2NP or HA310-2NP	Headphones

Description	Component Type
<b>Verity Transmit</b>	
MultiTech MTD-MNA1-2.0 - Optional Modem Accessory kit (4G LTE Cat-M1)	Modem
StarTech USB433ACD1X1 - Optional 802.11 WiFi Accessory kit	WiFi Accessory kit
StarTech USB31000SW - Optional RJ-45 Ethernet Accessory kit	Ethernet Dongle

Description	Component Type
<b>Additional System Accessories and Ancillary Equipment</b>	
HP Monitor P24 G5, P24 G4 24 or P244 for HP Z4 G4 or Z2 SFF G9 Workstations	Monitors
HP Monitor P231 or P232 for HP Z240 Workstations	Monitors
Optional: Full Page Magnifier 819007 manufactured by Bausch & Lomb	Full Page Magnifier
Optional: Full Page Framed Magnifier 436 manufactured by Inclusion Solutions	Full Page Magnifier
Optional: ATI Dual Jelly Bean Switch manufactured by AbleNet	Audio Tactile Interface

## Language Capability:

Verity Voting 2.8 supports the following 19 languages, with additional languages supported via the "Language Pack" functionality. The following languages are supported:

English, Spanish, Chinese, Japanese, Korean, Khmer, Thai, Vietnamese, Tagalog, Ilocano, Hindi, Haitian Creole, Gujarati, Hmong, Lao, Hawaiian, Cantonese, Punjabi, and Bengali.

## System Limitations

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

General System Limitations	
Languages in a single election	19
Precincts in an election	3,000
Splits per Precinct	20
Total Precincts + Splits in an election	3,000
Districts in an election	400
Polling places in an election	3,050
Parties in a General Election	24
Parties in a Primary Election	10

General System Limitations	
Contests in an election (including propositions)	2,000
Contest choices (voting positions) in a single contest	300
Total number of Contest Choices in an Election (independent from ballot size)	5,000
Unique write-in values per contest (Count)	500
Unique write-in values per task (Count)	40,000
Voting Types in an Election	10
Tasks per Election (Central, Count)	15
Registered Voters per Precinct (Count)	99,999
Maximum Sheets per ballot	4
Ballot Stubs per ballot	2
Ballots per vDrive (Scan, Vault, 1 sheet ballot)	25,000*
Ballots per vDrive (Controller)	20,000
Ballots per vDrive (Central)	20,000
Ballots per election (Central & Count)	1,750,000
vDrives per election (Count)	3,050
Ballot Sizes (Build, Central, Print, Touch Writer, Scan, Vault)	8.5"x11", 8.5"x14", 8.5"x17", 8.5"x20", 8.5"x22"***
Ballot Sizes (Build, Central)	11"x17"
Printed Vote Record page size - Verity Duo	8.5"x11", 8.5"x14"
Ballot box capacity	Ballot box capacity 4000 8.5" x 11" sheets
Emergency ballot bin	Emergency ballot bin 1000 8.5" x 11" sheets
<p>* This is a recommended limit for the number of single-sheet ballots scanned on an individual Verity Scan and Vanguard Vault during a single election. For a two-sheet ballot, divide this number by two; for a four-sheet ballot, divide this number by four.</p> <p>** Older printer models may not support a 22" ballot.</p>	

System Character Limitations	
Additional Text Notes	500
Ballot Additional Header (Custom)	100
Ballot Additional Text	3,000
Ballot Instruction Text	10,000
Ballot Stub Additional Information	50 each line
Ballot Title (Custom)	100
Blank Page and Footer labels	40
Choice Additional Text	100 per
Choice Name	100
Contest Instructions	225 (paper); 50 (electronic)
Contest Notes	500
Contest Title	250

System Character Limitations	
Device report signature text (Verity Build)	500
District Description	500
District Name	100
Election ID	99,999 (numeric)
Election Name (Election Management Application)	50
Election passcodes for devices	6 (numeric)
Election Title	100
Jurisdiction Name	100
Multi-line write-in labels (electronic)	100 each
Multi-line write-in labels (paper)	20 each
Party Abbreviation	3
Party Ballot Text (Affiliation)	50
Party Name	50
Polling Place Name	50
Polling Place Notes	1,000
Precinct and Write-in labels	20
Precinct Name	40
Precinct Split Name	10
Proposition Text	10,000
PVR Additional Header (Custom)	50
PVR Title (Custom)	50
PVR Voter Instructions	95
Sample Ballot, Official Ballot, and PVR Labels (Verity Build)	20 each
Short Choice Name	25
Short Contest Title	35
Short Election Title	50
Short Jurisdiction Name	50
Touch Writer/Verity Duo display instructions	500
User Password	1-50
Username	1-50
Verity Key Administrator passcode	8 (alphanumeric)
Verity Key device/application passcodes	8 (numeric)
Voting Type Name	50
Write-in Choice Name (Verity Touch Writer/Duo)	25

## Functionality

### VVSG 1.0 Supported Functionality Declaration

Feature/Characteristic	Yes/No	Comment
<b>System Functionality</b>		
Election creation	Yes	
Closed primary	Yes	
Open primary	Yes	
N-of-M contest	Yes	
Precinct splits	Yes	
Ballot rotation	Yes	
Straight-party contest	Yes	
Cumulative contest	Yes	
Ranked choice contest	No	System supports casting not tabulation
Party preference contest	Yes	
Top-2 primary contest	Yes	
Presidential delegate contest	Yes	
Proportional voting contest	No	
Group voting contest	No	
Recall contest	Yes	
Top-2 IRV contest	No	
Cross-party endorsement	Yes	
Write-In voting	Yes	

Feature/Characteristic	Yes/No	Comment
<b>Tabulation</b>		
Provisional or Challenged Ballots	Yes	
Overvotes	Yes	
Undervotes	Yes	
Blank Ballots	Yes	
<b>Devices Supported</b>		
Ballot marking device	Yes	
Precinct Scanner	Yes	
Central count scanner	Yes	
All-in-one device	No	