

WASHINGTON



**Secretary of State
Elections Division**

**Report of the Secretary of State
on the examination of**

**Dominion Voting
Democracy Suite 5.17 Voting System**

May 2023

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Overview

Application

On April 7, 2023, Dominion Voting Systems submitted an application for Washington State Certification of Democracy Suite 5.17. Dominion Voting Systems applied to certify functionality several components of the Democracy Suite voting system, specifically, ImageCast Central (ICC) high-speed ballot scanning products, ImageCast X (ICX) accessible ballot marking device (BMD), and Democracy Suite 5.17 Election Management System (EMS) suite. Copies of operating and maintenance manuals, training materials, technical and operational specifications were provided as part of the EAC's Technical Data Package.

New Voting System

This is a modification of a currently certified voting system (Democracy Suite 5.5) to the State of Washington. This system is a paper-based digital scan voting system with a commercial off the shelf (COTS) scanner.

National Certification

After the completion of testing by a certified Voting System Test Lab (VSTL) the Election Assistance Commission (EAC) certified Democracy Suite 5.17 on March 16, 2023. The hardware and software of the system that was approved by the EAC can be found in the EAC's Certificate of Conformance and Scope.

Testing & Inspection

Testing and evaluation of Democracy Suite 5.17 was conducted by Secretary of State staff at Franklin County Elections in Pasco, Washington, on May 2, 2023. Examining the system for the Office of the Secretary of State were Les Bowen, Voting Systems Lead, and Callin Silvernail, Election Integrity Lead.

Due to Democracy Suite 5.17 receiving National Certification from the EAC, a two-phase testing program was developed and approved by Secretary of State EIS Supervisor for state certification testing:

Delivery acceptance testing of the equipment and software to determine if the correct model and versions of the equipment and software are delivered and that the equipment, software, and system operate as documented by the vendor.

Election results testing to ensure that the equipment, software, and system perform each of the functions required by federal, state, and local law in order to administer an election from the beginning to the end.

Ballots were manually voted using the accessible voting unit, ImageCast X, and incorporated into the results to ensure proper tabulation.

Executive Summary of Findings of Secretary of State Staff

Voting System Accuracy

Democracy Suite 5.17 successfully and accurately tabulated all ballots including additional hand-marked and manually voted ballots from the accessible voting units. Results were manually audited and reviewed by a team of two.

Results Reporting

Democracy Suite 5.17 was able to produce the state required reports for election results by precinct and cumulative.

Presidential Primary

Democracy Suite 5.17 can perform all the functions necessary to comply with current state requirements for the Presidential Primary, which means it can detect cross-party voting in a Presidential Primary without manual intervention.

System Limits

This table, containing information from the testing lab certification test report, depicts the limits of the Democracy Suite 5.17 system, as stated by Dominion Voting Systems.

Characteristics	Limiting Component	Limit	Component
Ballot Positions	Ballot	462**/292*	22 in, ballot
Precincts in an election	EMS	1000; 250	Memory, Standard; Express
Contests in an election	EMS	1000; 250	Memory, Standard; Express
Candidates/Counters in an election	EMS	10000; 2500	Memory, Standard; Express
Candidates/Counters in a precinct	Ballot	462**/240*	22 in. Ballot
Candidates/Counters in a tabulator	Tabulators	10000; 2500	Memory, Standard; Express
Ballot Styles in an election	Tabulators	3000; 750	Memory, Standard; Express
Ballot IDs in a tabulator	ICP***	200	Memory, Both EMS
Contests in a ballot style	ICX BMD Ballot	156**/38*	14 in. Ballot, Both EMS
Candidates in a contest	Ballot	231**/240*	22 in. Ballot, Both EMS
Ballot styles in a precinct	Tabulators	5	Memory, Both EMS
Number of political parties	Tabulators	30	Memory, Both EMS
"Vote for" in a contest	Ballot	30**/24*	22 in. Ballot, Both EMS
Supported languages in an election	Tabulators	5	Memory, Both EMS

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

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

*** ICP is the ImageCast Precinct system, which is not part of the application for use in Washington.

Ballot Scanning

ImageCast Central uses InoTec and Cannon scanners. The InoTec scanner is a high capacity scanner capable of sustained scanning speeds of up to 300 ballots per minute. The supported Canon scanners have speeds ranging from 60 to 140 ballots per minute. During testing of a ballot measuring 8.5"x17" on the Canon DR-G2140 scanner, we experienced a scanning speed just under two ballots per second.

Ballot Processing

ImageCast Central is a central, high-speed, digital scan ballot tabulator coupled with ballot processing applications. The ICC software runs on unmodified COTS desktop computers running the Windows operating system and supports specific models of scanners.

The ICC central-count system runs on a Windows Server operating system, with network connections to workstations running the Windows operating system. All the components are unmodified COTS that are connected via a wired, closed, and isolated network not connected to any other systems or the Internet.

The system will allow multiple users to adjudicate ballots simultaneously, including ballots in the same batch. This feature will speed up the processing of ballots by county staff. Additionally, user roles can be restricted so they can only perform certain tasks within the application which will reduce the risk of accidental or intentional changes.

This system also allows for keyboard navigation which can speed up adjudication as well as offer accessible access to election staff with disabilities.

System Security

Windows logs are used to track the use of the PCs by individual users in addition to the Democracy Suite audit logs. These logs can be printed. Another important feature is that every ballot scanned has an audit log attached for easy review of the history of that ballot from scanning to tabulation.

Democracy Suite uses two-step authentication by requiring the user to enter their name and password as well as having a valid “iButton” connected to the PC. This version of Democracy Suite also incorporates security updates to address recommendations from the Cybersecurity and Infrastructure Security Agency (CISA). Democracy Suite continues to use system hardening scripts which create policies to enforce strong password usage on all Windows-based machines.

The system documentation provides procedures on how the user can check the hash code of the software to verify that the applications have not been modified from their certified versions.

Physical Security

The Democracy Suite EMS environment must be physically secured in a locked area with security access controls in place. No access to this area should be permitted to unauthorized personnel. Dominion Voting Systems requires that an access control system is utilized that will automatically log and record each person’s access to the EMS Datacenter environment.

Such systems include the use of electronic passes or biometrics to enter the secure area. In addition, if cameras and/or a cardkey system are not in use, all personnel must be required to sign in and out when accessing the secure Democracy Suite EMS environment area. The access log must include name, organization, purpose of access, date, time in, time out, and signature. Buildings and rooms within those buildings which

contain EMS and ICC installations must be secured. Security for these can include traditional methods such as keys and locks, cardkeys, and surveillance cameras. When voted ballot images are stored on the tabulation system, security must employ the use of numbered seals and logs, or other security measures, that document each individual's access to the voted ballot images and detect inappropriate access to the secure storage.

Write-Ins

Democracy Suite allows the election personnel to enter write-in candidates into the system. Write-in candidates cannot be selected in adjudication until they have been added to the list of write-in candidates in the system.

Accessible Voting

The ImageCast X is an Android-based touchscreen accessible voting unit, which can be used with the provided accessible switches or the voter's assistive technology, such as a sip-and-puff device. At the end of the session, the voter's choices are printed on a machine-readable ballot that can be put into the voter's return envelopes and returned into a ballot drop box. The vote is not captured electronically, meaning this device is not a direct recording electronic (DRE) voting unit. Accordingly, this device does not need to be audited separately. The votes on ICX will be a part of the post-election audit, as the ballots can be mixed in with all other ballots.

Accessible voting units (AVUs) must allow voters to cast their ballot privately and independently, which required voters to have direct access to the device while using it, with limited ability for direct observation from election officials. For this reason, additional security measures are appropriate to prevent unauthorized tampering with AVUs. The ImageCast X uses a whitelist for USB devices, which prevents unauthorized devices from being connected. In addition, any changes in the USB configuration require intervention from an election official to enter a password to authorize the use of the attached device. This functionality was observed during functional testing when the configuration for the ICX was altered to switch between two whitelisted ballot printers.

Conclusion

After an evaluation of the system, staff believes the system and its components meet current Washington State requirements for Presidential Primary, Special, Primary, and General Elections.