



# COLORADO SECRETARY OF STATE Elections Division

Application for Certification or Modification of a Voting System

This application is for: (check one)

- Certification of a Voting System    
  Temporary Approval/Use    
  Modification of a Voting System

Vendor Contact Information		
Name of Vendor Dominion Voting Systems		
Address PO Box 343		
Address		
City Broomfield	State Colorado	Zip Code 80038
Person to Contact Nick Ikonomakis		
Telephone 416-762-8683 x223	Fax	E-mail nick.ikonomakis@dominionvoting.com

Equipment Information	
Make Democracy Suite	Model(s) 5.17-CO
Description of each major subsystem or component: (including if it is required or optional) <b>EMS:</b> Election Management System software that operates on a COTS server. It provides components for designing election databases, ballot artwork styling and generation, programming ballot scanning and BMD stations, and tally of results and reporting. Additionally, the EMS provides the ability to adjudicate scanned ballots from the ICC and also provides the ability to conduct an Instant Runoff Voting (IRV) election. <b>ICC:</b> ImageCast Central workstation and scanner that operates on a COTS computer with a COTS scanner (Canon DR-X10C, Canon DR-G1130, DR-G2140, DR-M160II; InterScan 821dd HiPro) to count paper ballots. <b>ICX:</b> ImageCast X is a ballot marking device that operates on COTS tablets (Avalue) and prints ballots on COTS printers (HP M402dne, Avison AP3061, HP M404dn). These devices are used at VSPCs to allow voters to mark and print ballots that can be verified by the voter prior to casting and can be read by an ICC scanner. <b>ICVA:</b> ImageCast Voter Activation is an application that operates on a COTS laptop and allows poll workers to create activation cards for voters utilizing the ICX BMD devices.	

Software/Firmware Information
All applicable version, release, and firmware numbers
<b>Democracy Suite 5.17-CO EMS Software Platform Components</b>
<b>Software</b>
EMS Election Event Designer (EED) 5.17.17.1
EMS Results Tally and Reporting (RTR) 5.17.17.1
EMS Election Data Translator (EDT) 5.17.17.1
EMS File System Service (FSS) 5.17.17.1
EMS Audio Studio (AS) 5.17.17.1
EMS Data Center Manager (DCM) 5.17.17.1
EMS Application Server (APPS) 5.17.17.1
EMS Adjudication Services 5.17.14.1



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EMS Adjudication Client 5.17.14.1
EMS Logger 5.17.17.1
Smart Card Helper Service (SCHS) 5.17.17.1
<b>Democracy Suite 5.17-CO EMS Standard Server Platform Components</b>
<b>Software</b>
Microsoft Windows Server 2019 (v1809)
Microsoft SQL Server 2019 Standard with SP2
Microsoft SQL Server 2019 Management Studio
Microsoft IIS (part of Windows installation, not a separate item)
Microsoft .NET Framework 3.5
Microsoft .NET Framework 4.8
Microsoft Visual C++ 2013 Redistributable
Microsoft Visual C++ 2015 Redistributable
Microsoft Windows Defender
Arial Narrow Fonts 2.37a
Cepstral Voices (English, Spanish, etc.) 6.2.3
<b>Hardware</b>
Dell PowerEdge R640
Dell PowerEdge R630
Dell PowerEdge T630
Dell PowerEdge R710
Ethernet Switch: Dell x1026
Ethernet Switch: Dell x1018
Ethernet Switch: Dell N1524
Ethernet Switch: Cisco 24-port Switch (CBS350-24T-4G)
Mini-Server Rack: StarTech RK1236BKF (for rackmount components)
Rack Power Distribution Unit: APC AP9562 (for rackmount components)
UPS: Tripp Lite SMART1500RMXL2U (for rackmount components)
<b>Democracy Suite 5.17-CO EMS Express Server Platform Components</b>
<b>Software</b>
Microsoft Windows 10 Professional (Build 21H2)
Microsoft Access Database Engine 2010
Microsoft SQL Server 2019 Express with Advanced Services
Microsoft SQL Server 2019 Management Studio
Microsoft IIS (part of Windows installation, not a separate item)
Microsoft .NET Framework 3.5
Microsoft .NET Framework 4.8
Microsoft Visual C++ 2013 Redistributable
Microsoft Visual C++ 2015 Redistributable
Microsoft Windows Defender
Open XML SDK 2.0 for Microsoft Office
Dallas 1-Wire Device Driver version 4.1.0
Adobe Reader DC
Arial Narrow Fonts 2.37a
Cepstral Voices (English, Spanish, etc.) 6.2.3
(Optional) Microsoft Excel 2010 or later



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<b>Hardware</b>
Dell Precision 3460 XE
Dell Precision 3450 XE
Dell Precision 3440 XE
Dell Precision T3420
Dell Precision T1700
Ethernet Switch: Dell x1008
Ethernet Switch: Cisco 8-port Switch (CBS350-8T-E-2G)
<b>Democracy Suite 5.17-CO EMS Client Application Platform Components</b>
<b>Software</b>
Microsoft Windows 10 Professional (Build 21H2)
Microsoft Access Database Engine 2010
Microsoft .NET Framework 3.5
Microsoft .NET Framework 4.8
Microsoft Visual C++ 2013 Redistributable
Microsoft Visual C++ 2015 Redistributable
Microsoft Windows Defender
Open XML SDK 2.0 for Microsoft Office
Dallas 1-Wire Device Driver version 4.1.0
Adobe Reader DC
Arial Narrow Fonts 2.37a
(Optional) Microsoft Excel 2010 or later
<b>Hardware</b>
Dell Precision 3460 XE
Dell Precision 3450 XE
Dell Precision 3440 XE
Dell Precision T3420
Dell Precision T1700
<b>Democracy Suite 5.17-CO Auxiliary Components Common to EMS Platforms</b>
<b>Hardware</b>
iButton to 1-Wire USB Adapter: Dallas Maxim DS1402-RP8+
iButton Reader/Writer: Dallas Maxim DS9490R#
Smart Card Reader: Advanced Card Systems ACR38U
Smart Card Reader: Advanced Card Systems ACR39U
Smart Card Reader: HID Global Omnikey 3121
LCD Monitor: Dell P2422H
LCD Monitor: Dell P2419H
LCD Monitor: Dell P2417H
Keyboard, Mouse, Headset with microphone, Audio Adapter – COTS computing accessories
UPS: APC SMT1500 Smart-UPS
UPS: APC SMT1500C Smart-UPS
UPS: CyberPower PR1500LCD
UPS: CyberPower PR1500LCD-VTVM
UPS: APC BR1000G
EMS Report Printer: Canon LBP6230DW laser or equivalent



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EMS Report Printer: HP LaserJet M404dn or equivalent
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### Democracy Suite 5.17-CO Election Media Components

#### Hardware

iButton (Pollworker): Dallas Maxim DS1963S-F5+ (w/Black Key Ring Mount DS9093A+)
Compact Flash Memory (16GB): Centon C4-CM-CF-16.4
USB Memory Device (128GB): Apricorn Aegis ASK3-NX-128GB
USB Memory Device (32GB): Apricorn Aegis ASK3-NX-32GB
USB Memory Device (120GB): Apricorn Aegis ASK3-120GB
USB Memory Device (30GB): Apricorn Aegis ASK3-30GB
USB Memory Device (16GB): Centon (BiCS4) C4-CT-U3P2-16.3
USB Memory Device (16GB): Centon S4-CM-U3P2-16.1
USB Memory Device (8GB): Centon (BiCS4) PN: C4-CT-U3P2-8.3
USB Memory Device (8GB): Centon S4-CM-U3P2-8.1
USB Memory Device (16GB): Apacer EH353-M APHA016GAG0CG-3TM
USB Memory Device (8GB): Apacer EH353-M APHA008GAG0CG-3TM
Smart Cards: ACOS-6-64

### Democracy Suite 5.17-CO ICVA Platform Components

#### Software

Microsoft Windows 10 Professional (Build 21H2)
ImageCast Voter Activation Application 5.17.17.1
Smart Card Helper Service (SCHS) 5.17.17.1
Microsoft .NET Framework 3.5
Microsoft .NET Framework 4.8
Microsoft Windows Defender

#### Hardware

Dell Latitude 3330
Dell Latitude 3420
Dell Latitude 3410
Dell Latitude 3400
Dell Latitude 3490
Dell Latitude e3480
Dell Latitude e3470
Dell Latitude e7450
Dell Latitude e7470
Smart Card Reader: Advanced Card Systems ACR38U
Smart Card Reader: Advanced Card Systems ACR39U
Smart Card Reader: HID Global Omnikey 3121

### Democracy Suite 5.17-CO ICC Platform Components

#### Software

Microsoft Windows 10 Professional (Build 21H2)
ImageCast Central Application 5.17.15.1
Microsoft .NET Framework 3.5
Microsoft .NET Framework 4.8
Microsoft Windows Defender
Microsoft Visual C++ 2015 Redistributable



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Dallas Maxim 1-Wire driver 4.1.0
HiPro 821dd driver 1.3.0.4
Canon DR-X10C driver 1.15 SP3
Canon DR-G1130 driver 1.2 SP6
Canon DR-G2140 driver 1.1 SP2
Canon DR-M160II driver 1.2 SP6
<b>Hardware - Canon</b>
Dell Optiplex 3050 AIO
Dell Optiplex 7440 AIO
Dell Optiplex 9030 AIO
Dell Precision 3440 XE with Monitor
Dell Precision 3450 XE with Monitor
Dell Precision 3460 XE with Monitor
Monitor: Planar PCT2235
Scanner: DR-G2140 (FW 1.23) with optional post-imprinter
Scanner: DR-G1130 v1 (FW 1.33) with optional post-imprinter
Scanner: DR-G1130 v2 (FW 2.02) with optional post-imprinter
Scanner: DR-X10C (FW 2.8)
Scanner: DR-M160II (FW 2.02)
<b>Hardware - HiPro</b>
Dell Optiplex XE4 with Monitor
Dell Optiplex XE3 with Monitor
Dell Optiplex 7050 with Monitor
Dell Optiplex 7060 with Monitor
Monitor: Lenovo 10QXPARIUS
Monitor: Lenovo 11GCPARIUS
Monitor: Dell P2418HT
Scanner: InterScan HiPro 821dd with integrated imprinter
iButton to 1-Wire USB Adapter: Dallas Maxim DS1402-RP8+
iButton Reader/Writer: Dallas Maxim DS9490R#

### Democracy Suite 5.17-CO ICX Platform Components

<b>Software</b>
ICX Application 5.17.17.1
Android 8.1.0-2.2.4 (ICX Classic)
Google TTS 3.15.18
<b>Hardware</b>
ICX Tablet: Avalue SID-21V-Z37 (ICX Classic)
UPS: APC SMT1500 Smart-UPS (for HP M402dne printer configurations only)
UPS: APC SMT1500C Smart-UPS (for HP M402dne printer configurations only)
UPS: CyberPower PR1500LCD
UPS: CyberPower PR1500LCD-VTVM
Printer: HP M402dne
Printer: Avision AP3061
Printer: HP M404dn
(Optional) Headphone: Cyber Acoustics ACM-70, ACM-70B or equivalent
(Optional) Sip & Puff: Enabling Devices #972
(Optional) Sip & Puff Straws: Enabling Devices #970K



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|---|
| (Optional) Paddle Switches: AbleNet 10033400 (2x)                                       |
| (Optional) Paddle Switch Cable: Hosa Technology YMM-261 (for use with AbleNet switches) |
| (Optional) Accessible Tactile Interface (ATI-USB) box                                   |
| (Optional) ICX Classic BMD Transport Bag  |
| (Optional) ICX Voting Booth   |

### Federal Testing Information

NASED or EAC Qualification or Certification Number(s):  
DVS-DemSuite5.17

### Rule 21.3.6– Trusted Build Documentation

- Trusted Build Installation Instructions

### Rule 21.4.4 and 21.4.11(a) – External Test Documentation *(check all that apply)*

- An application penetration test conducted to analyze the system for potential vulnerabilities
- A source code evaluation conducted in accordance with Software Design and Coding Standards of the 2002 Voting System Standard
- A complete report detailing all findings and recommended compensating controls for vulnerabilities and deficiencies
- VSTL test documentation
- Other State test documentation

### Rule 21.4.6(b) - Physical and Design Characteristics Documentation

- Drawings, photographs and any related brochures or documents

### Rule 21.4.10(c), 21.4.10(d)(1) and 21.4.11(b)(5) - Database and Operating System Documentation *(check all that apply)*

- Database Hardening Procedure
- Operating System Hardening Procedure
- Minimum services and executables required to run the voting system application

### Rule 21.4.11(b), (i), (j), and (k) – General Documentation *(check all that apply)*

- Standard issue users/operator manual
- System administrator/application administration manual
- Training manual and related materials
- Election definition programming and diagnostics manuals
- Minimum services needed for the successful, secure and hardened operation of all components of the voting system
- Security measures for all systems, software, devices (upload, download, and other programming devices) that act as connectors and any additional recommended security measures



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- Processing standards for each component of the voting system
- Detailed information as to the type of hardware required to execute the software
- A statement of all requirements and restrictions regarding environmental protection, electrical service, telecommunications service and any other facility or resource required for the installation, operation and storage of the voting system

### Rule 21.4.11(d) – Battery Documentation *(check all that apply)*

- The steps and times required for charging batteries for each type of device submitted for certification
- Estimated time of battery operation for each type of device submitted for certification, assuming continuous use of the devices by voters during an interruption of normal electrical power

### Rule 21.4.11(g) – Audit Documentation *(check all that apply)*

Documentation that includes the location and a description of the content of the audit trail information that applies to:

- Operating systems
- Election management system
- Election tabulation devices

### Rule 21.4.11(h) - Voting System Security Documentation *(check all that apply)*

The documentation must contain configurations, properties and procedures to prevent, detect and log changes to system capabilities for:

- Defining ballot formats
- Casting and recording votes
- Calculating vote totals consistent with defined ballot formats
- Reporting vote totals
- Altering of voting system audit records
- Changing or preventing the recording of a vote
- Introducing data for a vote not cast by a registered voter
- Changing calculated vote totals
- Preventing access to vote data, including individual votes and vote totals, to unauthorized individuals
- Preventing access to voter identification data and data for votes cast by the voter



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*The applicant shall be responsible for providing confidential or other “trade secret” documentation in a separate binder and/or electronic media with the information clearly marked as “confidential” or “trade secret” pursuant to section 24-72-204(3)(IV), C.R.S.*

In making application for certification of the voting system listed above, I assert that the system meets the requirements of the Colorado Secretary of State Election Rules (8 CCR 1505-1).

Nick Ikonomakis

Name

A handwritten signature in blue ink, appearing to read 'Nick', is written over a horizontal line.

Signature

VP, Engineering

Title

02/14/2023

Date