

# STATE BOARD OF ELECTIONS



*From the desk of.... Kyle Thomas*  
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**To:** Steven S. Sandvoss; Executive Director

**Re:** Dominion WinDI 5.6-C IL Approval

**Date:** August 26, 2020

Dominion Voting Systems, Inc., an Illinois election equipment vendor, has requested a two-year interim approval for their WinEDS 4.0/Democracy Suite (WinDI) 5.6-C IL vote tabulation system. This is an advancement of their previously approved Integrated Voting System WinDI 5.6-B IL, which received an interim approval from the Board at the December 2019 meeting. The main system components include:

Democracy Suite Election Management System (EMS) version 5.6.92.26  
WinEDS D-Suite Integration (WinDI) DVS Cartridge Reader version 5.6.70.2  
-and DVS Export version 5.6.70.2  
Image Cast Precinct (ICP2) in precinct tabulator, Rev A version 5.6.8.4  
Image Cast Central Count (ICC) central count tabulator, version 5.6.83.1  
Image Cast X with BMD (ICX BMD) ballot marking device, version 5.6.73.2  
Image Cast Voter Activation (ICVA) card activator, version 5.6.92.13  
Image Cast Listener (ICL) server, version 5.6.92.1

Pollbooks tested for interoperability:

Election Systems & Software (ES&S) EZRoster, version 3.7.2.0 electronic  
-pollbook card activator  
SKU pollbook card activator  
Votec pollbook card activator

This latest modification includes multiple changes. These included such items as a new commercial off the shelf (COTS) Cannon DR-G2140 scanner for use as a central count scanner in conjunction with the ICC tabulation software, improved consistency in regards to Audit Mark Logging for ambiguous marks and overvotes, improved "paper jam" messaging for the ICP2 tabulator and revisions to the ICX BMD to improve ADA functionality for audio ballot cast instructions and corrected large font display on the review screen.

After staff analysis of the proposed modifications, it was determined that our modification General Election mock test was appropriate to review the changes brought forth. Staff hand marked ballots for all 20 precincts with 41 regular styles, 20 Federal Only styles, and 20 President Only styles. One ballot per style was created on the ICX BMD for inclusion and in total 8,760 ballots were cast. This included all three tabulation modes for election day, early voting, and vote by mail. Half of the total ballots were tabulated on the newly introduced Cannon scanner. No tabulation errors were encountered.

Even though all ballots were tabulated accurately, there were issues encountered with the setup which caused several programming changes and thus restarting of the ballot tabulation. The situation was further hindered by occurrence of COVID-19 in the office, causing the test to be put on hold for two weeks as staff were quarantined and the office was sanitized. Upon return to the office staff recognized that the vendor had not programmed the election such that the tabulators were appropriately notifying for the under vote of Statewide Constitutional offices and therefore the election had to be reprogrammed to account for this oversight. The first and then second reprogramming caused office misalignments which did not allow the ballots to be tabulated. The third reprogramming was accomplished accurately and the test was able to restart and run successfully.

Staff did also encounter several "Ambiguous Mark" messages during ballot tabulation. These occur when a voter's attempt to fill an oval is less than complete, as the system is set to notify if an oval is less than 30% filled but more than 0% such that the ballot is returned and the voter is given the ability to more completely indicate their choice. With most occurrences, the ballot was able to be fed in a different orientation without the ambiguous mark warning. In every instance that the ballot was accepted by the tabulator without the message, the marks were tabulated accurately. It is possible that the 30% threshold is higher than necessary to prevent what are known as "hesitation marks" from causing unwanted selections. We will be discussing this further with Dominion and their staff.

Staff was also able to review each of the three electronic pollbook card activators used in conjunction with this tabulation system. As with other electronic pollbook card activator tests, staff selected voters from our statewide database to be searched within the pollbooks. For each voter, an activation card was created for the ICX BMD and staff verified that the appropriate ballot style was selected for said voter. In addition to the successful card activator testing, Dominion provided a properly formatted file for upload into the e-canvas reporting system. Staff from Election Operations assisted in this portion of the test and the results were proofed for accuracy.

Dominion was able to adopt our recommendations from the December 2019 approval report, as they relate to their system. However, as outlined in that report, the VRS Division stands by the procedural recommendations made for use of the WinDI system as outlined below.

#### Recommendations:

1. Provisional ballots must be deposited inside an envelope after voting. While the ICP-2 will accept provisional ballots voted on paper and on the ICX, they must be placed in a provisional ballot envelope instead of being run through the ICP-2. The ability of the ICP-2 to segregate provisional ballots can be a feature used to catch any provisional ballots accidentally placed into the tabulator.
2. Following the retabulation of ballots for early voting or for in-precinct, it is recommended that the jurisdiction perform a hand count of the ballots created by a BMD, in this case the ICX. Each contest should be checked to ensure no discrepancies exist between the QR code and the human readable contest selections.

3. The modem used for wireless transmissions should be disconnected when not in use. After the initial transmission at the opening of polls, the modem should be disconnected and the compartment locked and sealed. After the results have been tabulated and the official tapes printed, then the modem can be reattached and the unofficial results transmitted.

As required for all vote tabulation system approvals, Dominion submitted the system to an Election Assistance Commission (EAC) accredited voting system testing laboratory (VSTL) for testing and review. Pro V&V, the VSTL used for this campaign, reviewed the system Technical Data Package (TDP) and tested the system against the requirements of the Voluntary Voting System Guidelines 1.0 (VVSG) and found that WinDI 5.6-C IL met the requirements of VVSG version 1.0.

As the Director of the Voting and Registration Systems (VRS) division, it is my recommendation that the Board grant a two-year interim approval of the Dominion WinEDS 4.0/Democracy Suite (WinDI) 5.6-C IL vote tabulation system as described above.