Electronic Voting Machine Information Sheet

Dominion ImageCast Optical Scan System

Name/Model: Dominion ImageCast Optical Scan System

Maker: Dominion Voting (Canada)

Voter-Verifiable Paper Trail Capability: Uses paper ballots

		
ImageCast scanner	**ImageCast scanner and BMD combo**	**ImageCast front showing ballot slot, user buttons, display screen, and paper tape.**

Brief Description: The ImageCast is a precinct-based, paper ballot scanner and vote tabulator. There are two model variations. One model is a standard optical scanner, the other incorporates a Ballot Marking Device on the same machine and facing in the opposite direction from the scanner. In BMD/scanner version, one voter can use the Ballot Marking Device while others use the scanner on the other side of the machine.[1] The ImageCast has a small LCD display screen to provide voters with feedback such as an overvote warning. There are two buttons, a square red button labeled "Return" and a oval green button labeled "Cast" that the voter uses to instruct the machine to return or cast ballots with errors, such as overvotes or ambiguous marks. When the polls close, the ImageCast prints out the race results and other information on a paper tape.

Detailed Voting Process: The ImageCast functions much like a traditional paper ballot system. Upon entering the voting precinct, the voter receives a paper ballot; the voter then shades in the ovals or squares paper ballot with a pen and finally inserts the ballot into the ImageCast scanner. If an overvote or ambiguous marks that cannot be interpreted are detected, the voter is alerted and given an opportunity to return and correct the ballot. As votes are scanned, the ImageCast stores the vote tallies on its internal memory card. When the polls close, the ImageCast's prints out the precinct's vote report on rolled paper on the internal thermal printer.

What to Look For

[1] A voter can use the BMD at the same time that other voters are scanning ballots. However, if a BMD user wants to verify their ballot, it must be placed in the scanner slot. Other voters cannot scan ballots while a BMD voter is reviewing their ballots.

- **Security Seals** - the ImageCast 's exposed ports, memory card access areas, ballot box doors and case seams should be covered with tamper-evident security seals. The integrity of these seals should be maintained at all times, and only breached under controlled, explained circumstances. A voided seal looks like this: http://www.flickr.com/photos/joebeone/2247733620/ . Opening and replacing of seals must be recorded in a chain of custody log.

ImageCast showing seals in place.

- **Ballot Box Access** - The ImageCast scanner has one ballot box with separate sections, one which receives ballots containing write-in votes. Each ballot box should be inspected by poll workers at the beginning of voting to make sure that they are empty. These ballot boxes should locked and/or be sealed with tamper-evident tape and appropriate entries made in chain of custody logs.

- **Memory Cards are Sensitive** - Corrupt memory cards may introduce viruses, cause the scanner of main election server to crash, cause other problems that can result in incorrect vote tallies. Access to the memory card should be controlled, monitored and logged at all times. Tamper evident seals should cover access to memory cards and other ports, with entries recording the seal numbers made in chain of custody logs whenever seals are removed or reattached.

- **Correct Inks for Marking Ballots** - Some Optical Scan systems have trouble reading red inks or inks with red in them. Voters should only use the writing instrument provided at the polling place.

Past Problems: In the 2009 election for the NY-23 Congressional seat, several ImageCast scanners froze during voting. The cause was a combinations of text and names in a 3 out of 5 race which caused a buffer overflow. Pre-election testing had discovered this problem in another New York county, and a fix was found and applied to most machines in the state prior to the election. However, the State Board of Elections failed to notify the NY-23 counties, causing some machines to fail in these districts.[2]

[2] http://www.bolipari.com/boblog/2009/11/no-virus-in-new-york/