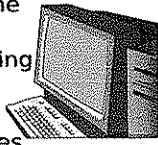


OVC System Description

Before Election Day

Election Management System

All information about the election is stored here. When complete, including qualified write-in candidates (14 days before Election Day) files are produced from which CDs for the voting machines will be made.



Disk Duplicator



A CD -- with serial number printed on the label, and digital signature -- will be produced for each voting machine to be used on Election Day

The Election Management System is based on EML v6. The ballot definition file for each ballot style is produced automatically from a database.

Audit logs from this process will be available publicly.

Election Day

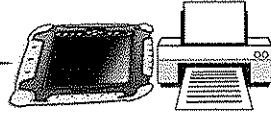
CDs Arrive at Poll Site in a sealed envelope -- signed for and witnessed.



CD inserted into each voting machine



Voting machines secured and ready



Each disk has the Linux operating system (reduced to necessary functionality), application software and ballot definition.

These machines are standard architecture PCs with no hard drive

Each machine is started and checked -- test ballot printed on each one

Voting

After signing-in, the voter is given a privacy folder in which to place the ballot.



Voter proceeds to a voting booth to make selections on a touchscreen, and selects "PRINT BALLOT" when finished.



When the voter places the ballot in the folder (unfolded), the bar code will be exposed. A poll worker at the ballot box can see which side is printed and turn it upside down to slide it into the ballot box.

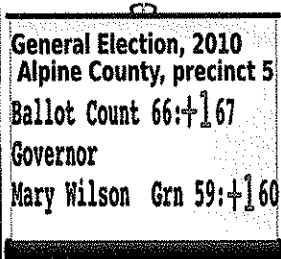


Reading-impaired, or any voter, can use headphones to hear the ballot read back to them.

Voting machine testing before polls open includes hardware probing to ensure no tampering. Signatures of binary files are also checked, and become part of the audit logs.

No data from the voter interaction with the machine is stored. A unique 4-digit random number is concatenated with a hash value machine-generated at boot up. This becomes the ballot ID and is stored in the 2-d bar code (PDF417) along with the voters selections.

After Polls Close



After the polls close, the ballot box is opened and the ballots are counted and tabulated in full public view. At the instant the bar code is scanned, the totals are updated on a screen everyone can see. When finished, a tally sheet is printed for anyone that wants one. One copy of the tally sheet is posted at the poll site.

During the process of scanning each paper ballot and recording those choices for tallying it is imperative that each scanning event be recorded in an audit log that can then be verified to ensure only actual paper ballots cast are included in the tallying, and that they come only from known scanning devices.

The ballots each have a unique ID, and cannot be counted twice.

Countywide tabulation

Each precinct tally sheet has a bar code which reflects the totals for the precinct. To accumulate the vote county-wide, headquarters need

only scan the bar codes from the tally sheets. Anyone can download the aggregated spreadsheet. Absentee ballots will

look the same and tabulate with the same equipment. The whole process will be publicly observable.

Precinct tallies and aggregated totals should be available in spreadsheets anyone can download.