Electronic Voting Machine Information Sheet

Diebold AccuVote-OS

Name/Model: AccuVote-OS Optical Scan System
Maker: Diebold
Federally-Qualified Voter-Verified Paper Audit Trail Capability: Uses paper ballots

Description: AccuVote-OS is a precinct and central accumulation optical scan voting system. The AccuVote is a small system, and can be transported without excessive difficulty.

When using the AccuVote-OS as a precinct based optical scan unit, ballots are processed in the polling place, not transported to a central location. Only the voter touches the ballot between the time it is cast and the time it is counted. The AccuVote-OS integrates the vote tabulation and recording process into one unit. The unit is powered with both an internal battery source and an external source. The AccuVote-OS is currently in use in 900 jurisdictions.[1]

Detailed Voting Process: The AccuVote-OS functions much like a traditional paper ballot system. Upon entering the voting precinct, the voter will receive a paper ballot; the voter shades in the paper ballot with any standard pen or pencil and inserts the ballot into the AccuVote-OS, where they are given a chance to review their votes.[2] As votes are entered, the AccuVote-OS stores the vote tallies on its internal memory card.[3] When the polls close, the AccuVote-OS then transmits the voting data from the polling place to the central host computer by way of a modem.[4]

Past Problems: Multiple problems have been encountered in a variety of jurisdictions,

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[1] Basic information can be found at Diebold's website, available at:
http://www.diebold.com/dieboldes/solutions_management_os.asp
[2] From the AccuVote-OS brochure, available at:
http://www.diebold.com/dieboldes/pdf/dieboldes_OS_brochure.pdf
[3] From the detailed Deibold operator's manual, available at:
http://www.bbvdocs.org/diebold/manuals/AVOS_Precinct_Count_1_94_Users_Guide_Rev_2.pdf
[4] http://www.diebold.com/dieboldes/pdf/dieboldes_OS_brochure.pdf

ranging from incorrect total vote counts in Barry County, Michigan, to not accepting ballots in King County, Washington, to delays in Putnam County, Georgia due to inaccuracies in the memory card totals.[5] The problems have been encountered across multiple versions and after multiple certification procedures.

In July of 2005, a computer expert (Hursti 2005), was able to pre-load the AccuVote-OS electronic ballot box with negative and positive votes such that the zero tape printed at the beginning of the day showed all zeros but really contained some votes. In October of 2006, a group of computer scientists from the University of Connecticut (Kiayias et al. 2006) reported a number of vulnerabilities with the AccuVote-OS that didn't involve removing the memory card from the optical scan device including: allowing no votes to be cast for a particular candidate, swapping votes for two candidates, and another set of reporting problems where the data is right but what is reported is incorrect.

NASED Qualified: Yes[6]

References:

A. Kiayias, L. Michel, A. Russell, and A. A. Shvartsman. Security Assessment of the Diebold Optical Scan Voting Terminal, UConn Voting Technology Research Center, October 30, 2006, *available at:* http://voter.engr.uconn.edu/voter/Reports.html.

Harri Hursti, SECURITY ALERT: Critical Security Issues with Diebold Optical Scan Design, Black Box Voting, July 4, 2005, *available at:* http://www.blackboxvoting.org/BBVreport.pdf.

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[5] From the VotersUnite! website: http://www.votersunite.org/info/Dieboldinthenews.pdf
[6] Information from the NASED website.
http://www.nased.org/NASED%20Qualified%20Voting%20Systems%20031706.pdf