



DS200[®]

Security Features Of The Precinct Scanner & Tabulator

Accuracy, security and reliability are the cornerstones of the ES&S development process for each voting system we manufacture and sell. From concept to construction, ES&S adheres to industry-leading standards and complies with rigorous testing schedules set forth by federal and state election agencies. Upholding and perpetuating the integrity of our nation's election process is our continuing mission as a company.

Like all ES&S ballot tabulation equipment, the DS200 in-precinct paper-based scanner and tabulator includes physical security features such as locking panels and security seals to secure sensitive components and election files, and a key locked case for transport and shipping. This paper-based system maintains paper vote records and takes digital images of each processed ballot.

The DS200 allows election officials to easily validate that all resident firmware matches the firmware version certified for use in that jurisdiction. It also generates detailed audit and event logs to reveal all actions taking place on the unit while also digitally signing and encrypting all data to prevent malicious tampering. Each administrative function requires a password be entered for completion and units can be configured to require a passcode before the tabulator boots up.

Strong physical safety features including controlled keys with unique locks, security seals and security screws eliminate the possibility of undetected system tampering during storage, transport and use. The unit only accepts approved and certified USB drives to prevent unauthorized data transfers or uploads.

The DS200 tabulator is a single purpose voting device. As such, once an election official installs election programming, it is not possible for a separate device to interface with the DS200 in order to overwrite or change the election definition or system firmware. Additionally, when election results are transmitted, a double encryption procedure is employed that ensures results are secure from the time they are bundled by the DS200 tabulator until they are processed by the Election Reporting Manager (ERM).





MODEMING

As It Relates To Unofficial Results Transmission

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Where approved, certain ES&S systems support secure wireless network results transmission utilizing a Data Transmission Security bundle configured in the Electionware Configure module. The security bundle is loaded to the DS200 using USB media. The encrypted security bundle contains network access passwords to facilitate secure connection and authentication with the central reporting location. Only unofficial results are ever transmitted via modem. Official results are physically uploaded at the election office.

Additional security is achieved by signing the encrypted results bundle with a private key created by the DS200. The encrypted results bundle, in addition to the results, includes the signature file and DS200 created Public key used to verify the results bundle signature. The jurisdiction's election administrator assigns a unique account and password to all users of the EMS PCs.

ES&S application software digitally signs every cast vote record and digitally signs the package of cast vote records captured by the tabulators.

Additionally, ES&S application software for the DS200 places a digital signature on all data sent to the tabulators on removable media — from the Election Management System (EMS) PC — and all data returned from the tabulators on removable media (to the EMS PC).

Modem capability is only activated when the polls are closed and communication is initiated to a designated host site for purposes of results transmission. Even when the modem is active the unit is not capable of establishing



a connection that it did not initiate. Results are sent over a secure and hardened network. Static Internet Protocol (IP) addresses are assigned to the modem inside each DS200. These IPs are added to the server's "white list" while all other incoming IP addresses are blocked for a secure transfer.