Electionware®

Election Management Software

Electionware incorporates the very latest in election security, including heightened audit controls and built-in change management processes that ensure election data is safe and secure.

System Security

- The Election Management System (EMS) running Electionware is a hardened server, configured to include only the services, applications, utilities and settings required to successfully operate the system. The hardening process turns the server into a single-purpose device, dedicated solely to creating and operating elections.
- Electionware is protected by multifactor authentication using Windows BitLocker.
- Electionware requires usernames and passwords to launch the EMS application. The restricted user roles determine which features are accessible.
- The database server accesses data through a dedicated hardened EMS client on an air-gapped monitored network.

Physical Access Controls

- Officials are required to implement a strong physical and procedural security plan that limits access to Electionware to authorized personnel only.

Audit Logs

- Electionware maintains an audit log that tracks and saves a record of all system processes and user actions with usernames. This audit log can be filtered by date and type of event.
- The log can be printed or saved in a variety of file formats, including PDF, RTF, HTML, XLSX and CSV. The log operates during all processes, including results processing. Optionally, log events can be viewed in real time in the output window, which displays errors in red text, warnings in blue text and normal events in black text.
- Audit records created during election definition and ballot preparation include records for all steps in the finalization of the ballot layout. These records are date- and time-stamped and include a description of the action and the module in which the action occurred. Audit reports can be filtered by date or event type and can be sorted by ascending or descending time stamps.
- Audit logs on the EMS server, either in Electionware or the database, cannot be modified.

Post-Election Auditing with Electionware

ES&S fully supports the use of paper ballots and post-election audits as a way to ensure accuracy and increase confidence in our country's election process.

- Electionware offers election officials the ability to conduct a wide range of post-election audits with improved effectiveness and efficiency. The system provides easy-to-read, side-by-side comparisons of the unaltered ballot image and its corresponding cast vote record, making it possible to audit any election in a fraction of the time.
- Electionware provides an export of cast vote records that are easily imported into the various risk-limiting audit systems in use today.
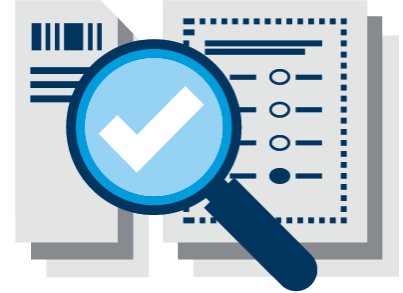
Is a Paper Ballot Card Auditable?

Yes. Just as hand-marked paper ballots can be inspected or audited by hand or by machine, so can paper ballot cards since they contain both human-readable selections and corresponding machine-readable barcodes. The ballot card contains the same data as a hand-marked ballot, displayed in different ways. During a post-election hand-count audit, selected candidate names are used to count the vote.

ES&S Security Philosophy

Nothing is more important to ES&S than protecting America's democracy by supporting secure, accessible and accurate elections. That's why every ES&S product reflects our three-part security philosophy:

- **Design:** All products are designed, without compromise, to meet the latest and ever-evolving standards in security, accuracy and reliability.
- **Testing**: In addition to ES&S testing protocols, all tabulation systems are rigorously tested and certified by the federal Election Assistance Commission (EAC), which reflects security and performance standards developed by scientists, academics and election officials. ES&S also takes security testing to the next level, executing penetration testing with independent, accredited laboratories. ES&S submitted our end-to-end voting configuration for Cybersecurity and Infrastructure Security Agency (CISA) critical product evaluation (CPE) at one of our nation's leading research labs.
- **Implementation:** The entire ES&S team is devoted to ensuring that each piece of technology performs as expected on Election Day, helping election officials uphold the laws of their jurisdiction, which mandate strict physical security and tight chain of custody of all voting machines.

Perhaps most importantly, ES&S' essence — its very being — is predicated on supplying America with equipment and software for secure, accurate and accessible elections. All of us at ES&S hold ourselves and each other accountable for this mandate and are proud to serve a role in this noble purpose.