



## SECURITY BULLETIN

# ExpressVote® Universal Voting System as a Marker

The purpose-built, paper-based ExpressVote Universal Voting System maintains the highest levels of physical and digital security controls. It provides voter confidence with onscreen, printed and audio playback options for vote selection verification. The unit's security features control access to critical components of the system.



## PHYSICAL AND SYSTEM ACCESS CONTROLS

- The unit's hardware is designed to protect against tampering, including during system storage, transport and voting.
- The ExpressVote uses physical and system access controls including lockable doors, tamper-evident seals and access codes.
- The operating software provides security access controls to limit or detect access to critical system components, guarding against system integrity loss and availability.
- Only system certified components are recognized by the ExpressVote.



## SYSTEM APPLICATION CONTROLS

- System functions are only executable during election events, in the manner and order intended by election officials performing their duties.
- The system performs a self-diagnostic test at startup, which provides status and alerts election officials of errors.



## ENCRYPTION, HASH VALIDATION AND DIGITAL SIGNATURES

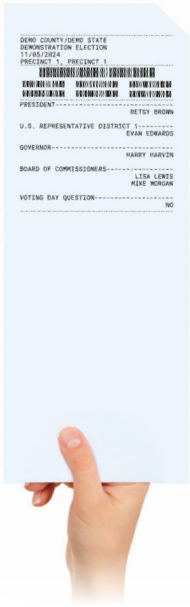
- Election programming is stored on the system as an encrypted and digitally signed data bundle. Each time data is used a hash validation is performed to ensure data integrity remains intact.



## AUDIT LOGS

- The ExpressVote generates a detailed audit log of all actions and events that have occurred on the unit, which can be exported for review and analysis.
- Every action and event, including access attempts, access of system functions and errors, is logged and timestamped.
- The audit log file is digitally signed each time an event is written to it.

# ExpressVote Auditing



## PAPER BALLOT CARD

- Provides a verifiable paper vote record for every voter, containing both human-readable selections and corresponding machine-readable barcodes
- Can be read by any ExpressVote unit before tabulation to verify the voter's intent was captured accurately

## IS THE PAPER FROM THE EXPRESSVOTE AUDITABLE?

Yes. Just as hand-marked paper ballots can be inspected or audited by hand or by machine, so can ballot cards. A 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 fully supports the use of paper ballots and post-election audits to ensure accuracy and increase confidence in our country's election process. ES&S views paper records as critical for auditing. A physical paper record of the selected candidate names provides the means to a statistically valid post-election audit.

## ES&S Security Philosophy

Nothing is more important to ES&S than protecting America's democracy through secure and accurate elections. That's why every ES&S product reflects the company's 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, academia and election officials. The ES&S testing protocol also involves testing by independent, accredited laboratories. ES&S submitted our end-to-end voting configuration for Cybersecurity and Infrastructure Security Agency (CISA) critical product evaluation (CPE) at Idaho National 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 state 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 providing America with secure, accurate and accessible elections. Every person at ES&S holds themselves, and each other, accountable for this mandate, and is proud to serve a role in this noble purpose.