

**Statement for the Record**

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**For a hearing on**

**Election Security Preparations: Federal and Vendor Perspectives**

**Before the**

**United States Senate**

**Committee on Rules and Administration**

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**Executive Summary:** Voting system companies are a critical part of the Election Security solution, in partnership with federal, state and local election officials and agencies, to help protect the integrity of the vote in America. At least as important as voting system technology are the people, processes and procedures in use by election officials to ensure the sanctity of the vote. We, the voting system providers, and Hart specifically, are fully engaged in the conversation about and renewed focus on elections security, for example with the Department of Homeland Security through the Sector Coordinating Council, with the Center for Internet Security and with our customers.

Hart InterCivic is based in Austin, Texas where we have been located since our inception over 100 years ago. Hart began as a paper ballot printer and we've evolved to become one of the top three voting system providers in the country, with customers across 18 states. Hart's business is focused exclusively on voting systems.

While Hart maintains strong working relationships with many federal and state officials and groups, our primary customers are local, usually county, election administrators, auditors and clerks charged with overseeing local government in general and elections in particular.

We agree with the DHS and EAC approach of defend, detect and recover. We also encourage, and we employ, a defense-in-depth approach. All Hart voting systems go through thorough, independent testing to achieve required federal and state certifications before they are used. Hart systems utilize the very latest in software and hardware security technology and support rigorous post-election audits.

Election experts refer to the importance of cultivating secure election management through a combination of "people, processes, procedures and technology." We are fully supportive of America's election officials and poll workers and we salute their dedication and hard work as we assist them in developing and implementing best practices around people, processes, procedures and technology.

Hart InterCivic is dedicated to election security through our involvement in the current dialog about election security as critical infrastructure, through the technologies that we offer, through sharing best practices with our customers and through our firm belief in the sanctity of the vote and the importance that the American public has confidence that every vote counts.

**Bio: Peter Lichtenheld, CERA**

**Vice President of Operations**

**Hart InterCivic, Inc.**

As Vice President of Operations, Mr. Lichtenheld is the Company's point person on all industry-wide discussions and activities surrounding Election Security. This includes being Hart's primary representative on the Department of Homeland Security's election infrastructure industry Sector Coordinating Council.

In addition, Mr. Lichtenheld oversees and coordinates timely and accurate delivery of numerous customer-critical services. His management of Product Management, Certification, Ballot Production Services, Technical Services, Professional Services and the Customer Support Center is key to customers receiving voting system components, services and on-going support.

Prior to joining Hart in 2001, Mr. Lichtenheld worked as an educator, specializing in training programs from elementary level to adult learning programs for doctoral level students. This experience was valuable to his development of Hart's comprehensive voting system training programs that benefit election officials, poll workers, and technicians in thousands of jurisdictions across the country. Pete has worked as team leader in all aspects of Hart's elections business. He was instrumental in organizing Hart's Customer Support Center and leads company initiatives focusing on the customer experience.

Mr. Lichtenheld received a Master of Arts in Instructional Technology from the University of Texas at Austin and a Bachelor of Arts degree in Religious Studies and Philosophy from Beloit College in Wisconsin. He is a State of Texas certified teacher and a graduate of the Certified Elections/Registration Administrator/Vendor program with The Election Center, where he continues ongoing education.

**Written Testimony:** Chairman Blunt, Ranking Member Klobuchar and members of the Committee, thank you for the invitation and for the opportunity to speak with you about the critically important topic of Election Security. My name is Peter Lichtenheld and I serve as the Vice President of Operations at Hart InterCivic.

Hart InterCivic believes that voting system companies are a critical part of the Election Security solution, in partnership with federal, state and local election officials and agencies, to help protect the integrity of the vote in America. At least as important as voting system technology are the people, processes and procedures in use by election officials to ensure the sanctity of the vote. The voting system providers, and Hart specifically, are fully engaged in the conversation about and renewed focus on elections security, for example with the Department of Homeland Security through the Sector Coordinating Council, with the Center for Internet Security and with our customers.

Hart InterCivic is based in Austin, Texas where we have been located since our inception over 100 years ago. Hart began as a paper ballot printer and we've evolved to become one of the top three voting system providers in the country, with customers across 18 states. Hart's business is focused exclusively on voting systems, including software and devices used to define elections, create ballots, capture votes, tabulate votes, report and audit the results. We are not involved in voter registration solutions nor any other aspect of elections or government administration. Hart's voting systems are designed, engineered and manufactured in the USA in the State of Texas.

While Hart maintains strong working relationships with many federal and state officials and groups, our primary customers are local, usually county, election administrators, auditors and clerks charged with overseeing local government in general and elections in particular. Hart is not a "one size fits all" voting system provider. Most local election officials, within the bounds of state law, have significant flexibility and latitude in determining how elections will run in their jurisdiction. Functional needs and preferences vary from state to state and even county to county within a state. Election officials choose the voting style and we support them and provide the technology they choose. This may include by-mail voting or all the various methods of in-person voting from hand-marked paper ballots to hybrid systems which combine electronic voter interfaces with a hard-copy paper trail. We actively seek feedback from customers and prospective customers, incorporate their input, and evolve our solutions as needed. We do this to ensure we deliver the best possible technology solutions to election officials and to keep up with the evolving needs and requirements of those officials.

We agree with the DHS and EAC approach of defend, detect and recover. Here's how we support that approach:

- Hart InterCivic engages fully with the DHS and with the Center for Internet Security. We are glad to be part of the Sector Coordinating Council, working with other election providers and with the Government Coordinating Council to defend the critical infrastructure of our nation's elections.
- Before they are used in any election, all elements of Hart voting systems are submitted for thorough security and performance testing by an independent, accredited and approved voting system testing laboratory as part of a federal certification process overseen by the U.S. Election

Assistance Commission (or EAC). Certified voting systems adhere to standards designed to ensure that systems accurately record votes the way they are cast. Security standards include protections against tampering or manipulation and cover requirements for physical security of the equipment and ballots, features that prevent connection to the internet or a network, auditing capabilities and more.

- In addition to federal-level testing by the U.S. EAC, most states require separate and additional security and performance testing and certification of voting systems before they may be sold in those states. Hart systems have been certified in all 18 states where we do business, and we are currently in the certification process in several more.
- We have a strong approach to security evident in the design of all elements of our voting system technologies. Security features of Hart voting systems include:
  - Hart voting systems are NOT connected to the internet. Hart voting systems are in NO way connected to: Internet, Intranet or in-office networks, voter rolls/registration, voter personal data, campaign/donor information, party/campaign volunteer information or schedules, Voter communications regarding times/locations for early or Election Day voting, or Email systems.
  - Cast vote record data is digitally signed using NIST-compliant FIPS 140-2 cryptographic modules.
  - Multiple redundant data backups ensure that any malicious data manipulation would be detected by comparing data sets during an audit (e.g., compare paper ballots to electronic cast vote records).
  - Application whitelisting prevents unauthorized computer programs or code from being executed on voting devices and on computers that run Hart’s election software. (Whitelisting is a more stringent anti-virus approach that looks at what IS allowed to run on the system vs. traditional anti-virus applications that looks at what is NOT allowed to run on the system.)
  - Hart’s voting system software cannot be remotely accessed by Hart or anyone else, including remote access for troubleshooting (no remote desktop).
  - Systems running Hart’s voting system software operate in “kiosk” mode, which means the user can only access those functions required by the software. This prevents user access to the operating system and prevents installation of any unauthorized programs or files onto the system. The system is “locked down” to prevent intentional or accidental misuse by the operator.
  - On Hart voting devices, external cards, drives, cables or other devices cannot be inserted by voters.
  - Multiple keyed locks restrict access to voting devices and memory devices.
  - Devices are designed for use with tamper-evident seals.
  - Devices use non-standard electrical wiring in strategic areas.
  - Two-factor authentication is used to secure access to critical election management functions.
  - Every application and device thoroughly logs all user authentication, data entry, user interaction, and system events. Election managers can print or export plain language audit logs from each application, using easy-to-use report filtering to access the precise information to be audited.

- Hart supports the most rigorous post-election audits. Audit features allow election officials to maintain and access a detailed electronic record of all activities that occur related to the system, as well as the ability to review cast vote data to verify the results and detect any errors. Auditing is not only a big part of election security and verification of results but is also instrumental in the ability to detect attempted data manipulation. We believe that every state should have mandatory and consistent audit requirements and that audits should be conducted for every election. Audits help to provide voter confidence in the franchise.

While voting system technology is an important aspect of security, true election security also requires thoroughly trained election officials and staff upholding government-defined processes by implementing well-honed election management procedures. Election experts refer to the importance of cultivating secure election management through a combination of “people, processes, procedures and technology.” This is all a part of the defense-in-depth approach to security, which we fully embrace. We are supportive of America’s election officials and poll workers and we salute their dedication and hard work. We regularly provide Best Practices newsletters, webinars, articles and individualized one-on-one consultations for our customers and for all election officials in America. Some of our best practices around People, Processes and Procedures include:

- We recognize that individual jurisdictions’ election managers are responsible for the “people” aspect of election security. We encourage and train election leaders to ensure staff members and temporary workers are carefully selected and properly vetted with reference and background checks. Election personnel require training, including cross-training, in the procedures and technology used to ensure accurate vote capture and tabulation. Team members should be assigned unique usernames, passwords and permissions to access only the appropriate functions within the voting system. Additionally, two people should be present for certain types of functions. To assist our customers in keeping their staff members’ knowledge of our systems fresh and relevant, we offer our customers free training for new election managers who have come on board after the initial system implementation and training events.
- Government bodies (typically states) establish the “process” aspect of election security in the form of election laws, code, rules and advisories. Local jurisdictions within each state must stay informed of these processes and adhere to them. We help our customers to make certain that they are compliant with state rules, laws and advisories where it is appropriate that we do so.
- Responsibility for the “procedures” aspect of election security resides with jurisdictions’ election managers. Local procedures document how to apply state election law, rules and advisories based on the jurisdiction’s election technology. Procedures include the frequency and written steps for testing the voting system’s logic and accuracy for every election before any ballots go out to the public, chain-of-custody protocols for voting equipment, rules for who can access voting system software, reconciliation of election results with the voter count for every election, post-election audit steps and more. Election managers love checklists, and we think of Procedures as those checklists. We assist with system-related procedures by providing effective training and comprehensive documentation, including checklists, to our customers.

Hart remains actively engaged in the national conversation on election security. We are connected with a broad community of stakeholders actively participating in knowledge sharing, best practice sharing and discussions on the latest election security technology and procedures. Some examples include:

- **Department of Homeland Security** – Hart is a founding member of the DHS Sector Coordinating Council, a formalized group of industry representatives who together act as a voice on election cybersecurity. In coordination with the DHS Government Coordinating Council, Hart participates in identifying potential security risks and implementing measures to eliminate those risks.
- **Center for Internet Security** – Hart contributed to CIS’s recent publication, “A Handbook for Elections Infrastructure Security” and we are engaging in the various appropriate Information Sharing & Analysis Centers (ISACs).
- **Election Assistance Commission** – Hart meets regularly with the EAC and actively participates in industry-wide initiatives.
- **National Academies of Science, Engineering, and Medicine** – As one of only two manufacturers to appear at the meeting of the NASEM Committee on Science, Technology and Law on the Future of Voting (Denver, Dec. 8, 2017), Hart actively participates in the conversation on technology innovation to safeguard elections.
- **Election Center** – Hart leadership serves on the Security Committee with the Election Center, participating in national conversations about cybersecurity at conferences that include a diverse array of election stakeholders (state and county officials; election administrators; technology and security experts) and at least a dozen of our Hart staff members are certified through the Election Center or are working on certification.
- **National Association of Secretaries of State** – Hart regularly exhibits our technology at NASS events, engages in conferences, attends substantive sessions on election topics – including security – and produces a bi-annual white paper submission.
- **National Association of State Election Directors** – Hart regularly exhibits our technology at NASED events and participates in election security sessions.

To summarize, at Hart InterCivic we are committed to election security, as are all the country’s voting system providers. We are actively engaged in the current dialog, and associated actions, about election security as critical infrastructure. We engage through the technologies that we offer, through sharing best practices with our customers and through our firm belief in the sanctity of the vote and in the importance that the American public has confidence that every vote counts.

Thank you for the opportunity to appear before the Committee today, and I look forward to your questions.