

About Hart InterCivic

Hart InterCivic is a leading national provider of election management and geo-content solutions for state and local governments. Hundreds of jurisdictions use the Hart Voting System to conduct secure, accurate and reliable elections whether in-person or by-mail. Millions of votes are cast each year using Hart's eSlate® and eScan™ polling place voting systems and Ballot Now™ central scanning / by-mail solution. The company also provides ballot production and printing services. Hart InterCivic is a privately held corporation based in Austin, Texas. For more information, please visit www.hartintercivic.com.

Company Background

- 1912** Company founded, later known as Hart Graphics, Inc.
- 1989** Subsidiary created, Hart Forms & Services, to focus on government services
- 1995** Expanded market offerings cause name change to Hart Information Services
- 1999** Company spins off from Hart Graphics to become Hart InterCivic, Inc.

Voting Product Milestones

eSlate® Introduced in 2000, the eSlate electronic voting device has been recognized as providing all voters with the means to cast a private, independent, and secure vote. The eSlate has been rated as the highest ranked voting system in terms of accessibility in *AccessWorld*, a publication of the American Foundation for the Blind.

36,500 eSlate units in use nationwide

eScan™ Introduced in 2005, the eScan precinct-based digital ballot scanner was the first to use advanced digital technology for ballot imaging.

3,500 eScan units in use nationwide

Customers

350+ customers across 13 states
20 million+ registered voters served
7 million+ ballots printed annually
Thousands of poll workers trained

Management Team

President and CEO - Gregg Burt
Sr. VP Operations and CFO - Ted Simmonds
Sr. VP Strategy and Business Development - Phillip Braithwaite
VP Marketing - Marcus MacNeill
Director of Engineering - Andy Rodgers

Our Values

Hart's reputation has been built on solid ethical business practices, which ensure that our customers receive innovative election solutions, quality service, and guidance from the most experienced professionals. Our people make the difference. In addition to Hart's unparalleled industry experience, the company has been recognized for its exemplary commitment to business ethics. Hart InterCivic has earned the 2002 Samaritan Center Ethics in Business Award, honoring those companies who practice the highest ethical principles in their daily business.

Gregg L. Burt

President and Chief Executive Officer

Gregg joined Hart in April 2007 with an accomplished career in executive leadership managing a range of businesses. As CEO of Hart, Gregg is responsible for leading Hart InterCivic into new technology-driven business opportunities serving both government and private sectors. He is a seasoned executive with a solid record of success in technology leadership.

As an executive, Gregg has managed a range of businesses. He has been a partner at Accenture, and he has founded and managed two successful start-up software companies. Previously, Gregg held various executive positions at Schlumberger Ltd., in Paris, France. During these assignments he acquired extensive international experience in mergers and acquisitions. Prior to joining Hart, Gregg was CEO of BuildForge, Inc., where he led the dramatic growth of this enterprise software company. BuildForge was recently sold to IBM.

Gregg holds a Masters of Business Administration from the University of Texas in Austin and a Bachelor of Science degree from the University of Southern California.

Ted Simmonds

Senior Vice President Operations and Chief Financial Officer

Ted joined Hart InterCivic in 2000, bringing with him more than 20 years of financial and general management experience in the computer industry. As Senior Vice President Operations and Chief Financial Officer, Ted directs Hart InterCivic's operations, financial strategy, accounting, information technology, human resources, and administrative services.

Prior to joining Hart, Ted served as director of finance and general manager of U.S. operations for Madge Networks, Inc., in London, England. He has also held senior financial and operations management positions at Olicom, Inc. (Richardson, Texas), Becket Corporation (Plano, Texas), and Tandem Computers (Austin and Plano, Texas).

Ted holds a Masters of Business Administration from the University of California at Berkeley and a Bachelors of Arts degree from Bethel College in St. Paul Minnesota. He is a certified public accountant and certified management accountant.

Phillip Braithwaite

Senior Vice President, Strategy & Business Development

In his position as Senior Vice President of Strategy and Business Development, Phillip is responsible for identifying new revenue opportunities, including new business models and expanded channels. He also provides leadership for select new business opportunities that can be leveraged globally across the company.

Phillip joined Hart InterCivic in 2001. He has additionally served in the roles of Vice President, Sales & Marketing and Senior Vice President & General Manager of Hart's Elections Solutions business. Phillip came to Hart from Dell Inc., where he served in several roles in its State and Local Government segment and worked closely with Hart InterCivic. Prior to joining Dell, he spent 10 years in the media and high-tech industries.

Phillip holds an MBA from the University of Texas at Dallas and a Bachelor of Arts degree from the University of Texas at Austin.

Marcus MacNeill

Vice President, Marketing

Marcus joined Hart InterCivic in 2007 and is responsible for all marketing and product management functions. He brings more than 20 years of experience in enterprise software development, management and marketing to his role.

Prior to Hart, Marcus held senior product management and marketing positions at Surgient, Troux Technologies, Vignette, PeopleSoft and Oracle. Marcus began his career as a software engineer and development manager at Platinum Technology.

Marcus holds a Bachelor of Arts degree from Stanford University.

Andy Rodgers

Director, Engineering

Andy joined Hart InterCivic in 2005 after more than 20 years in high tech business. Andy is responsible for new product development, sustaining and production engineering, as well as Federal certification for all Hart products.

Prior to joining Hart, Andy held product development management positions at Hewlett Packard and StorageTek, delivering dozens of successful products to market. He has also worked as a management consultant and entrepreneur. His experience includes supervision of R&D, Marketing, Manufacturing and Quality functions, in environments from startups to the Fortune 20. Andy holds 3 U.S. patents.

Andy received a Master of Science in Management of Technology from the National Technological University and a Bachelor of Science in Mechanical Engineering from Colorado State University.

The Hart Voting System is the only all-digital voting system on the market. It affords greater accuracy and quicker voter response than touch screen systems. The Hart Voting System does not require voters to use smart cards, electronic keys, or other programmable devices. This eliminates a key point of failure and a potential security weakness. It also reduces the number of poll workers needed for an election, because it eliminates the need for poll workers to initialize the voting device for each individual voter and to collect such devices after the voting process.

eSlate

The eSlate is Hart's electronic voting device that allows voters to view, vote, and cast electronic ballots. The eSlate includes a set of distinctly shaped control buttons and the SELECT Wheel for ease of navigation. These features enable the voter to review the ballot and cast votes independently, securely, and accurately. An eSlate outfitted as a Disabled Access Unit™ (DAU) includes an audio ballot reader and input jacks for adaptive devices. The DAU-equipped eSlate provides alternative access features for voters with visual impairments, blindness, mobility impairments, or literacy challenges. The eSlate is *not* a touch screen system. The eSlate's SELECT Wheel interface does not require calibration like touch screen systems. There is no chance of false touches due to ballot images that are misaligned with touch sensors.



eSlate

eScan

The eScan is a precinct-based, digital ballot scanner, which is fully integrated with the rest of the Hart Voting System. After marking a paper ballot, the voter feeds it directly into the eScan at the polling place. The ballot image is stored as a Cast Vote Record on a Mobile Ballot Box™ (MBB) flash memory card that can be retrieved and tabulated by Hart's Tally application. The eScan's capabilities include functionality to reject overvoted, undervoted, and blank ballots, thereby providing second chance voting at the precinct. In some jurisdictions the eScan is also used for by-mail ballot scanning. The eScan's digital imaging technology cuts printing costs and makes ballot scanning at the polling place a fast, efficient process.



eScan with Ballot

Ballot Now

Ballot Now is Hart InterCivic's paper ballot printing and central-office scanning application. Ballot Now features on-demand printing and print-to-file capabilities for use with third-party printers and mail services. Ballot Now is used to print ballots for eScan devices in the polling place and for all by-mail and absentee voting.

1. What is eSlate®?

The eSlate is Hart InterCivic's direct recording electronic (DRE) voting device that allows voters to view, vote, and record electronic ballots. The lower portion of the eSlate includes a set of distinctly shaped control buttons and the SELECT Wheel™, Hart's specialized interface for maximum accuracy and accessibility. These features enable the voter to review the ballot and cast votes independently, securely, and accurately. The eSlate is *not* a touch screen system.

2. What is eScan™?

The eScan is the precinct-based, digital, paper ballot scanner that is fully integrated with the other components of the Hart Voting System. After marking a paper ballot, the voter feeds it directly into the eScan. The ballot image is stored as a Cast Vote Record (CVR) on a Mobile Ballot Box™ (MBB) flash memory card that can be retrieved and tabulated by Hart's Tally application. The eScan's capabilities include functionality to reject overvoted, undervoted, and blank ballots, thereby providing second chance voting at the polling place.

3. What is the VVPAT and what is the VBO?

The Hart Voting System's voter verifiable paper audit trail (VVPAT) is what we call the Verifiable Ballot Option™ (VBO). Hart's fully integrated and easy-to-use Verifiable Ballot Option is delivered through a self-contained printer that is secured in the voting booth next to the eSlate. It enables the voter to review a paper summary of the ballot choices cast on the eSlate. The VBO provides voters with the confidence that their ballots have an associated paper trail. The paper record can also serve as an additional audit trail.

4. Is the Hart Voting System certified?

Yes. The Hart Voting System hardware, firmware, and software are tested by federally certified testing facilities. Additionally, each state conducts its own certification process. Currently, the federal certification process is overseen by the United States Election Assistance Commission.

5. Do the eSlate voting units meet the HAVA requirements for accessibility?

Yes. Level I Braille is used to label the controls (the ENTER, PREV, NEXT, HELP, and CAST BALLOT buttons and the SELECT Wheel) on the eSlate. As is standard, the Braille is located below each uniquely shaped control. The eSlate provides a non-visual access method that includes touch controls and audible playback of operating instructions and ballot content information. The audio component uses a recorded human voice, not a computer-generated one.

6. How secure is the Hart Voting System?

The Hart Voting System is very secure. There have never been any security breaches of the system in or outside of the election environment, either at Hart InterCivic or at customer locations. There are many reasons for this:

- No Internet or external network connections are allowed at the polling place.
- No programmable devices (i.e., smart cards, electronic keys) at the polling place.
- The eSlate and Judge's Booth Controller use a real-time embedded operating system.
- Physically separate, redundant storage in multiple locations.
- Real-time audit logs.
- Installation and training that incorporate physical security and best practices.

Continual improvement in the areas of security, durability, quality, and accessibility of its products is a basic design and development objective for Hart InterCivic, as is responding to changing customer requirements and market demands. Security takes into account not only technology, but also people and processes. In addition to the security of the Hart Voting System itself, our customers provide many layers of security including chain-of-custody monitoring, parallel testing, logic and accuracy testing, auditing, physical security, law enforcement assistance, etc.

7. Why does Hart use the dial instead of the touch screen?

Hart's SELECT Wheel interface is more precise, more durable, and therefore more reliable than touch screen machines while remaining easy to use. Touch screen machines can be easily affected by accidental bumps or dropping, weather changes, and electronic malfunctions. The eSlate requires no calibration, is simpler to set up and operate, provides a superior voter experience, provides greater reliability, and is easier to maintain. Furthermore, there is no chance of false touches due to ballot images that are misaligned with touch sensors. In addition, the eSlate has been uniquely engineered for maximum accessibility. The eSlate enables private, independent voting for persons with disabilities. Voters with disabilities use the same SELECT Wheel navigation interface, supplemented by audio headphones or optional auxiliary input devices, that is used by voters without disabilities.

8. Does Hart InterCivic make a touch screen voting system?

No. Hart InterCivic makes what is commonly referred to as a Direct Record Electronic (DRE) voting machine that uses a rotary dial and buttons to allow the user to navigate the ballot. The touch screen design was intentionally avoided in the initial engineering of the Hart Voting System because of the cost, maintenance, and irregularities of touch screens themselves.

9. Is Hart InterCivic voting equipment manufactured in the U.S.A.?

Yes, it is. All Hart voting system manufacturing, from the ballot boxes our precinct digital scanner sits atop, to the eSlate electronic voting machine itself, is done in the U.S.A. We believe that this enhances quality assurance and confidence in our equipment, as it is used in elections across America.

10. Is Hart InterCivic voting equipment and software tested for quality before it goes to the cities and counties where the equipment is used? What about after it is delivered?

Yes, all Hart equipment and software is thoroughly tested. The equipment and software go through internal quality control testing, independent lab testing, testing for federal certification, and testing for state certification. Hardware testing includes high humidity, extreme heat and cold, voltage cycling, and anything else that could logically expose defects. Our equipment undergoes an Out of Box Audit (OBA) sampling process before it leaves the manufacturing area. OBA is a random sampling technique in which a completed product, ready for shipment, is selected and then functionally tested by an independent group at the site. After successfully completing the test, the unit is repackaged and subsequently shipped. This ensures lot integrity. A Hart representative joins each of our customers after equipment is delivered to their sites, and another set of acceptance testing is performed. During this testing all voting functionality of the equipment is tested. Finally, customers follow state and local guidelines to perform software logic and accuracy tests (L&A's or LATs) for each election conducted on the system.

11. Why are the eSlate voting devices daisy-chained together?

The daisy-chain configuration allows each Cast Vote Record (CVR) to be instantly stored in multiple physically separate locations: in the eSlate's internal memory, in the Judge's Booth Controller's (JBC's) internal memory, on the Mobile Ballot Box (MMB) flash memory card installed in the JBC, and on the voter verifiable paper audit trail if that option is included. Creating this duplication of the CVR provides maximum security for voted ballots. This configuration also allows us to use the paper Access Code to activate the voting device, rather than using a smart card or other means that might introduce a security risk. An additional advantage of the daisy-chain is that a poll worker does not need to activate each individual voting device, at the device itself, for each voter.

12. What if there is a power failure?

In the unlikely event of a power interruption or failure, the eSlate units immediately and automatically switch to battery power and your vote is fully protected. Hart InterCivic's eSlate can operate on battery power for 18 hours of continuous use. The eScan does not include an integrated battery backup, but paper ballots can be voted when power is out. The paper ballots

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can then be cast through the “emergency slot” in the eScan ballot box. These ballots are then scanned at the central office in most jurisdictions.

13. Can the electronic voting units be hacked into or results manipulated?

Successful “hacking” of the Hart system is extremely unlikely. The technology involved in the system prevents most threats, and the people and procedures in place in each jurisdiction provide further barriers. A “hacker” would have to have unlimited access to the equipment, collusion with jurisdiction employees, great knowledge of the voting system, a high degree of technical skill, and a willingness to commit multiple felony crimes. The voter activates the eSlate using a random four-digit Access Code - no smart cards, electronic keys, or other programmable devices are needed. Such devices can create security breaches in the system. The eScan, eSlate and JBC units used in elections are not connected to any external network, so there is no opportunity for someone to access the system remotely to alter code. The election officials in each jurisdiction control the passwords and cryptographic keys for the system. Furthermore, common practices at jurisdiction warehouses and polling places prevent tampering – security is always a combination of people, processes, and technology.

14. How do I know that my vote is private?

There is no way for the system to link your vote to you; there is no identifying information recorded with your vote. The Access Code is a random four-digit number that identifies the ballot contests on which you are eligible to vote. The Access Code is not associated with your name or any other identifying information. Therefore, it is impossible to trace your vote. Likewise, the paper ballot cast on the eScan is not associated with you.

15. After I cast my ballot, where do the results go?

Each Cast Vote Record is instantly stored multiple physically separate locations in the eSlate set up: in the eSlate’s internal memory, in the JBC’s internal memory, on the Mobile Ballot Box flash memory card installed in the JBC, and on the voter verifiable paper audit trail, if this option is installed. With the eScan, the separate locations are the paper ballot itself, the eScan’s internal memory, and the Mobile Ballot Box flash memory card.

16. How are the election results for my polling place retrieved from the machines?

The Mobile Ballot Box (MBB) is Hart Voting System’s reusable, portable PC memory card. The MBB is used to store election information and transport that data to and from the polling places. Because the MBB uses solid-state, nonvolatile flash memory storage, no batteries or constant power supplies are required to maintain data.

Tally is the Hart Voting System's software application that reads, stores, and tabulates the Cast Vote Records (CVRs) from the MBBs and provides a flexible reporting engine. Tally supports an election tabulation process that is a simple, straightforward, and, most importantly, accurate process. At the close of polls on Election Day, all MBBs (including those used for Early Voting and/or absentee/by-mail voting) are returned to the central counting location. The Tally database is initialized using the finalized Ballot Origination Software System (BOSS) database that was used to create the election. This initialization creates a tabulation database in Tally that contains all election specific information (e.g., contests, options, districts, precincts, etc.).

17. How are votes stored in the machine? In how many places?

On the eSlate, upon pressing the CAST BALLOT button on the final Ballot Summary page, each Cast Vote Record (CVR) is instantly stored in multiple physically separate locations: in the eSlate's internal memory, in the JBC's internal memory, on the Mobile Ballot Box flash memory card installed in the JBC, and on the voter verifiable paper audit trail, if this option is installed. With the eScan, the separate locations are the eScan's internal memory, the Mobile Ballot Box flash memory, and on the original marked paper ballot. The scanned paper ballots are secured in a locked ballot box connected to the eScan.

18. What if someone steals or destroys the MBB?

Only the PCs in the jurisdiction's election office contain the Hart Voting System software and only the correct election database can access and read the MBB. Hart's System for Election Records and Verification of Operations (SERVO) software application provides an election records archiving and asset management system for the Hart Voting System. SERVO is also used to recover Cast Vote Record data from Hart Voting System polling place equipment in the case of a lost or damaged MBB.

19. What is to prevent someone from fabricating an MBB and filling it with phony votes?

Security for the Hart Voting System software applications is provided by sealed equipment, tracking of equipment by serial number, and the eSlate Cryptographic Module (eCM), a physical security device. This electronic device is required for access to secure functions in the BOSS, Ballot Now, Tally, Rally, and SERVO applications. Before allowing access to the Hart Voting System applications, each eCM device requires an encrypted device ID, signing code, and a PIN or password. Only the jurisdiction's elections office staff with access to the Hart Voting System equipment and software has access to this information. Also the BOSS ballot creation software and Tally tabulation software databases track the MBBs that have been created per election, so a fabricated MBB would not be accepted.

20. Why can't I have a receipt of my voting record?

No voting machine issues a copy of an individual's voting record. Some machines or polling places issue a receipt indicating that you voted, but not your voting record. However, voters may request a receipt from the JBC indicating that they voted. This receipt does not show the voter's ballot choices. Issuing a receipt showing the voting record is illegal in most jurisdictions.

21. Can I change my vote before I cast my ballot? After I cast my ballot?

In compliance with the HAVA requirement for second chance voting, the eSlate allows the voter to review the ballot before casting the vote. The eSlate does not accept a CAST BALLOT command until the voter has viewed all contests on the ballot, as shown on the Ballot Summary. In other words, it is impossible for a voter to cast a ballot without first having the opportunity to review selections and make changes, if desired. After the voter verifies all selections and presses the CAST BALLOT button, the eSlate displays a message acknowledging the cast vote. At that instant, the ballot is recorded electronically as a Cast Vote Record (CVR) in three physically separate locations (the eSlate voting device, the JBC, and the MBB) for security. If the eSlate is outfitted with the voter verifiable paper audit trail, that printout also records the voter's choices. The voter is free to make changes to any selection until the CAST BALLOT button is pressed from the final Ballot Summary page.

Like the eSlate, the eScan allows voter to cast their ballots securely, privately, and independently. After marking a paper ballot, the voter feeds it directly into the eScan at the polling place. The voter knows immediately if the ballot is accepted as a message is displayed on a screen, thus complying with Section 301 of the Help America Vote Act of 2002 (HAVA) by providing the voter the opportunity to change or correct the ballot before it is cast and counted.

Americans have been voting on electronic voting machines for over 20 years, proving that the technology is secure and accurate. Electronic voting machines have a demonstrated, decades-long record of accuracy and reliability. There has never been a documented case of vote tampering through the use of an electronic voting machine. Every documented case of vote tampering in America has involved *non-electronic* voting technology. To ensure the continued record of tamper-free voting, electronic voting machines are tested for security and accuracy by their manufacturers, states or counties in which they are being certified, and independent certification testing labs. Electronic voting machine manufacturers submit their software code to federal, state, and local government authorities. These entities check to ensure the software used on Election Day is the same software as that certified for accuracy.

Security and quality are of paramount importance to Hart InterCivic. The Hart Voting System has proven to be secure and accurate. The Hart Voting System is regulated at both the federal and state levels. Symantec, an acknowledged leader in technology security, has also independently audited the Hart Voting System. Hart has attained certification under the internationally recognized: ISO 27001:2005 standard for information security.

If recounts are necessary for a given election, jurisdictions can conduct the recounts using the electronic voting machines. After each ballot is cast, a Cast Vote Record (CVR) is generated and stored instantaneously in multiple, physically separate, nonvolatile, electronic storage locations. A complete, electronic recount of an election is easily accomplished with the Hart Voting System by rereading each Mobile Ballot Box (MBB) memory card for the specified election into a "fresh" Tally database. The process duplicates the one used in the original tabulation, and provides the same results report, audit trails, and backup options. In the event that the law requires hand counting of paper ballots, the CVRs can be printed or the voter verifiable paper audit trail can be used.

Hart InterCivic has a voter verifiable paper audit trail (VVPAT), which enables voters to review a paper summary of their ballot choices. We call our solution the Verifiable Ballot Option™ or VBO. The VBO can be fitted to the eSlate at the customer's request without having to replace existing equipment. This option is available to Hart InterCivic customers on a state-by-state basis, depending on state requirements.



VBO

The Hart Voting System features a series of redundant and auditable measures to ensure accuracy and security. The system's eSlate® device allows the voter to double-check the ballot before casting it. Once cast, multiple copies of the electronic ballot are saved simultaneously in different locations, making lost data or undetectable fraud virtually impossible. Each of the records can be verified and audited for security and accuracy. The eSlate's SELECT Wheel™ interface does not require calibration like touch screen systems. There is no chance of false touches due to ballot images that are misaligned with touch sensors.

The digital voting technology in Hart's eScan is more accurate and secure than optical scanning systems. Like the eSlate, the eScan provides triple redundancy of the voter's choices: on the MBB flash memory card, within the eScan memory, and on the original marked paper ballot. The scanned paper ballots are secured in a locked ballot box connected to the eScan. The eScan also provides an electronic audit log that records all actions performed on the device with a date-time stamp. The audit log can be printed out as needed by the jurisdiction.

Security has been a fundamental design concept for the Hart Voting System from the beginning. Design decisions made even before the System's release are now being validated by recent events. The Hart Voting System includes both physical and electronic intrusion detection controls, such as standard election seals and time-stamped transaction logs that record every system action related to the voting process. From the Hart Voting System's embedded, real-time operating system at the polling place to the System's unique polling place control and management features, the Hart Voting System has been designed for security.

Several key principles are at the foundation of the Hart Voting System's design:

- **Multiple Layers of Defense.** Security features have been established in a manner that requires an attacker to overcome multiple obstacles to reach a target. The Hart Voting System includes several key process areas where this is the case, for example, as the system's multiple original storage of cast vote records.
- **Segmentation.** The Hart Voting System was intentionally designed with multiple, individual components that are allowed to communicate with each other only when a need to do so arises. This approach provides distributed processing of data, with each component verifying and authenticating the output of the previous component. The distributed architecture establishes multiple, independent data paths through the system that are cross-verified throughout the election process.
- **Standalone Security.** Each component of the Hart Voting System is secure on its own, and not dependent on any other component for its security. Additionally, each component maintains its own audit logs, recording each transaction that occurs and noting errors or anomalies.
- **Encryption.** Hart has implemented cryptography in all functions of its election software and election data exchange points. This additional and robust layer of 128-bit encryption provides a high level of data security throughout the election process.