# The State of Texas

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## Hope Andrade Secretary of State

### REPORT OF REVIEW OF HART INTERCIVIC'S VOTING SYSTEM 6.2.1

## PRELIMINARY STATEMENT

On January 17th and 18th, 2008, Hart InterCivic (the "Vendor") presented the Hart Voting System 6.2.1 for examination and certification. The examination was conducted in Austin, Texas. Pursuant to Sections 122.035(a) and (b) of the Texas Election Code, the Secretary of State appointed the following examiners:

- 1. Mr. Stephen Berger, an expert in electronic data communication systems;
- 2. Mr. Tom Watson, an expert in electronic data communication systems;
- 3. Mr. Brandon Hurley, an expert in election law and procedure; and
- 4. Mr. Paul Miles, an expert in election law and procedure.

Pursuant to Section 122.035(a) of the Code, the Texas Attorney General appointed Dr. Jim Sneeringer, an expert in electronic data communication systems and Texas Attorney General's employee, Katherine Cary.

On January 17th, 2008, Secretary of State staff and two of the examiners witnessed an install of the Hart Voting System software received directly from the Independent Testing Authority. A test deck of sample ballots was processed on each voting device and the results were verified for accuracy. The findings were presented verbally to all the examiners on January 18th and the test ballots and printed reports were made available for their review.

The Vendor then demonstrated the system; the examiners further examined its accuracy and security features by processing more ballots on each device and questioning the Vendor. Examiner reports on the system are attached hereto and incorporated herein by this reference.

#### BRIEF DESCRIPTION OF HART INTERCIVIC VOTING SYSTEM 6.2.1

Hart InterCivic's Voting System 6.2.1 supports both paper ballots and electronic voting. The systems' applications execute on a standard PC configured with a Windows 2000 Professional Operating System, Service Pack 4. Below is a list of all certified components of the system:

Component	Version	Description
BOSS	4.3.13	Ballot Origination Software System used to define the election.
Ballot Now	3.3.11	Paper ballot management system.
Rally	2.3.7	Application used to send election results from satellite locations.
Tally	4.3.10	Application used to tabulate election results.
eCM	1.1.7	Electronic Crypto Module Manager.
SERVO	4.2.10	Election-records and recount-management system.
JBC	4.3.1	Judges Booth Controller. The controller unit for up to 12 eSlate/DAU units. The controller unit is used to generate access codes for the voter.
eSlate	4.2.13	Direct recording electronic voting system (DRE).
eScan	1.3.14	Precinct-based scanner used for election day and absentee voting.

#### NATIONAL ASSOCIATION OF STATE ELECTION DIRECTORS (NASED) QUALIFICATION NUMBER

Hart InterCivic's Voting System 6.2.1 was qualified by NASED on August 7, 2006, under the designation N-1-04-22-22-006.

#### FINDINGS

The following are the findings, based on written evidence submitted by the Vendor in support of its application for certification, oral evidence presented at the examination, Texas voting system examiner reports and comments received at the public hearing held on April 3, 2008.

Hart InterCivic Voting System 6.2.1:

- 1. Preserves the secrecy of the ballot;
- 2. Is suitable for the purpose for which it is intended;
- 3. Operates safely, efficiently, and accurately;
- 4. Is safe from fraudulent or unauthorized manipulation;
- 5. Permits voting on all offices and measures to be voted on at the election;
- Prevents counting votes on offices and measures on which the voter is not entitled to vote;
- 7. Prevents counting votes by the same voter for more than one candidate for the same office or, in elections in which a voter is entitled to vote for more than one candidate for the same office, prevents counting votes for more than the number of candidates for whom the voter is entitled to vote;
- 8. Prevents counting a vote on the same office or measure more than once;
- 9. Permits write-in voting;
- 10. Is capable of permitting straight-party voting;
- 11. Is capable of providing records from which the operation of the system may be audited; and
- 12. Is capable of reporting undervotes.

The Verified Ballot Option ("VBO") was presented and reviewed during the exam. Due to the lack of state and federal legislation that requires the use of a Voter Verified Paper Audit Trail ("VVPAT"), the lack of state standards, and concerns about secrecy of the ballot, the optional VBO is not approved for use in Texas elections at this time.

#### CONDITIONS

During the examination for this system, examiners identified two potential security concerns that are mitigated and/or eliminated if certain procedural security protocols are followed. First, examiners discovered that if existing security protocols are not followed, then it is theoretically possible to access the operating system and run or delete other programs while Tally is tabulating results. Under Election Advisory 2008-09, Section 5(f)(i-iii), issued by this office, users are required to: (1) restrict usage of the voting system to the sole purpose of election administration, and (2) restrict what software is loaded onto the voting system computer/server. In addition, Section 5(d)(i)(1-3) of the Advisory requires users to limit access to the systems through passwords and encryption keys, certain menus and software modules. Compliance with Election Advisory 2008-09 will ensure that this potential unauthorized access can be prevented and detected

Second, examiners expressed concern that Version 6.2.1 does not have a secure OS configuration. To address this concern, the State of California required the Windows 2000 "Hardened" Operating System Security Setting be used.

Accordingly, based on the generally positive findings of the examiners and examiner suggestions, certification of Hart InterCivic Voting System 6.2.1, is conditioned on a political subdivision employing the following procedures:

- Two-person access for all Version 6.2.1 computers and servers is required: one person to log on to start the Windows 2000 OS and a second person to log on to start the specific application (e.g., BOSS, Tally, Ballot Now, eCM Manager).
- 2) A two person control team must be present any time the Tally application is open.
- 3) Version 6.2.1 Application Logs and Windows 2000 Audit Logs, which track user log-ons and log-on attempts, must be regularly reviewed by the local election officer. The Office of the Secretary of State may inspect these logs or may require the logs to be copied and mailed to this office.
- 4) Hart Windows 2000 "Hardened" Operating System Security Settings is required. Hart Windows 2000 "Hardened" Operating System Security Settings presents a table of Win2K system settings installed to achieve the "hardened" configuration. The format of the settings closely approximates that used in the applicable NIST checklist.
- 5) Each political subdivision which adopts Version 6.2.1 must file an initial written confirmation with the Office of the Secretary of State that they are in compliance with Condition Numbers 1 through 4, above, and subsequent to the initial confirmation filing, must file annual, updated confirmations.

#### CONCLUSION

Accordingly, based upon the foregoing, I hereby certify the Hart InterCivic Voting System 6.2.1 for use in elections in Texas, subject to the above conditions.

Signed under my hand and seal of office, this <u>30<sup>th</sup></u> day of April, 2009.

DEPUTY SECRETARY OF STATE