

**Barney Knight
& Associates
Attorneys at Law**

Tel: (512) 323-5778
Fax: (512) 323-5773
www.cityattorneytexas.com
attorneys@cityattorneytexas.com

Executive Office Terrace
223 West Anderson Lane, Suite A-105
Austin, Texas 78752

RECEIVED
2005 MAY -3 PM 2:41
ELECTIONS DIVISION
SECRETARY OF STATE

Attorneys
Barney L. Knight
Sheila I. Limon
Paige H. Saenz
Charles K. Eldred

June 2, 2005

Ann McGeehan
Deputy Assistant
Secretary of State
P.O. Box 12060
Austin, Texas 78711-2060

Re: Hart Intercivic, Inc. ("Hart") Tally v4.1.1; Rally v2.1.1; Ballot Origination Software System v4.1.4; Ballot Now v3.1.0; eSlate v3.1.3; Judges Booth Controller v3.1.3; eCM Manager v1.07; eScan v1.03; and SERVO v4.0.2 (collectively the "Voting System" or "System").

Dear Ms. McGeehan:

Pursuant to my service as an examiner under §122.035, Texas Election Code, I examined the Voting System as it was presented by Hart for examination. The examination and testing with respect to Texas Election Law and procedure was conducted on May 25, 2005.

This report is concerned solely with the ability of the Voting System and each of the individual components to function in compliance with Texas Election Law. This report is based on the presentation and statements by Hart, and the testing completed by the examiners on May 25, 2005. Hart gave a presentation and overview, and the examiners then conducted an examination by observing the operation of the Ballot Origination Software, Ballot Now, and casting ballots and observing the functions of the voting devices, the Judges Booth Controller, eSlate, and the tabulation and reporting of votes. Hart stated that various upgrades, including multiple security upgrades, had been made to the software and the various components of the System.

More specifically, Hart represented that a systematic review and assessment of security had been made resulting in many security improvements, including both physical and software. At the precinct level voting can proceed via either, or both, the Ballot Now system or the eSlate and Judges Booth Controller. Both appeared to correctly accept, store and report votes cast. One example security enhancement, in addition to software encryption and password use, includes the use of a USB key. This key was represented to be required for any use with BOSS, Ballot Now, Tally

and Rally, and most of the examination of the Voting System was undertaken under that representation. However, it later appeared such representation was not accurate.

Hart represented that the election administrator must assign a PIN to the USB key, i.e. jurisdiction specific security; the election administrator may create a key for the Voting System or for the individual election, or both, and that use of such keys is required for use or operation of BOSS, Ballot Now, Tally and Rally. Generally stated, codes within the USB Key must match codes within the precinct controller, the administrator's PIN and password. These are transferred to eSlate, and the USB key functions between the application programs and the data base. These codes and PINs must match for the equipment/software to function,¹ and two keys may be required, i.e. one for the System and one for the election. The security begins with the building security, includes securing the USB keys, equipment and software, and continues with the matching codes, PINs, user IDs and passwords. The ability of the jurisdiction to keep the Voting System and the USB keys under physical security, create keys for both the system and the election, and to require both encrypted identification numbers and passwords, appeared to provide security given the representation the keys were required for any operation of BOSS, Ballot Now, Tally and Rally. However, the discovery that some functions did not require the use of a USB key² together with the discovery of a "utility" program that can modify election results without leaving a real audit trail, raised additional security issues.

For the purposes of my reports, this examiner generally assumes the presentations made and the final responses by vendor representatives to questions presented are truthful and correct. I recognize, however, that inadvertent misstatements may occur. Such representations of fact are essential to the validity of the examinations as conducted and are as important as the observation of the Voting System in operation. Here, it appears one or more misstatements by Hart (or misinterpretations by this examiner) may

¹ This was the representation by Hart. However, late in the examination a fact issue was presented when it appeared the USB key is only required for certain functions of these increments of the Voting System. The examination of BOSS, Ballot Now, Tally and Rally under an erroneous understanding of the facts results in this examiner not having confidence that all applicable security issues were resolved. Further, such components require examination as to their function when the USB key is not in use.

² In addition to the security issue, the operation of the functions of these components (that would operate without the USB key) were not tested without the key being in use. This results in portions of the System as presented for examination not being fully examined as available for use in an election, i.e. without the use of the USB key on all the functions of BOSS, Ballot Now, Tally and Rally.

Ann McGeehan
Deputy Assistant
Secretary of State
Hart Intercivic

3

June 2, 2005

have resulted in one or more security issues remaining unresolved. I was able to make observation and testing of one configuration of the Voting System in the conduct of an election. Based on the written materials, the presentations and representations of fact by Hart, the testing made by casting and tabulating votes, and efforts during such process to afford the Voting System (as configured when examined) the opportunity to function other than as represented by Hart, the function and accuracy of the Voting System as configured when examined appeared to be adequate and in compliance with the Texas Election Code subject to all security issues being satisfactorily resolved. Further, it appears that satisfactory resolution of the security issues and related facts will resolve remaining issues as to the entire System.

During the conduct of the examination and the operation of the Voting System as a whole, several unresolved questions regarding security functions were raised. These specific issues were unresolved because Hart indicated it could not respond appropriately in an open session because of security and proprietary issues. In addition to those issues, there are two additional material issues that should be resolved in the follow-up session, i.e. the existence of the "utility program" that is not part of the Voting System and the clear facts regarding required use of the USB key.

The major components of the Voting System are Tally v4.1.1; Rally v2.1.1; Ballot Origination Software System v4.1.4; Ballot Now v3.1.0; eSlate v3.1.3; Judges Booth Controller v3.1.3; eCM Manager v1.07; eScan v1.03; and SERVO v4.0.2. BOSS, eSlate, Ballot Now and the Controller. These appear to be configured and to function in substantially the same manner as previously certified. Subject to the resolution of the referenced fact and security issues in an executive or regular session with all increments of the Voting System present and available for confirmation of security issues, the Voting System may be in compliance with *Chapt. 122, Subchapt. A, Texas Election Code*, and suitable for use in an election.

Special Consideration

The examination may have been compromised somewhat by Hart's reticence, given the public presence during the examination. Some responses appeared to be worded, limited or influenced by concerns for security and proprietary issues. As a result, a follow-up session is warranted.

Recommendation

I do not recommend the Secretary certify the Voting System at this time. Rather, I recommend the Secretary continue the examination

Ann McGeehan
Deputy Assistant
Secretary of State
Hart Intercivic

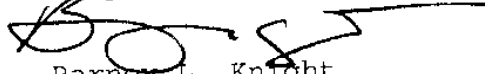
4

June 2, 2005

(that was commenced on May 25th) with a supplementary regular, or executive, session. It is recommended such session be held as an extension of the first session for the purpose of completing the examination of the Voting Systems as to certain security matters. During this subsequent session, I recommend the Secretary require Hart to present all parts and increments of the Voting System for an abbreviated additional examination and testing as to security. In addition, I recommend the Secretary require Hart to provide information on the "utility" software program and to demonstrate its use, propose safeguards against unauthorized and improper use, and, when used, to create a clear audit trail of that use.

If a supplementary session is held, I will be pleased to make a final recommendation promptly following that session. Absent a supplemental, follow-up session, and resolution of security issues, I recommend the Secretary not certify the Voting System.

Very truly yours,



Barney L. Knight