COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF STATE

REPORT CONCERNING THE REEXAMINATION RESULTS OF THE ACCUVOTE
TSX VOTING SYSTEM WITH ASSURE 1.2 ELECTION MANAGEMENT SYSTEM

Issued By:

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Secretary of the Commonwealth
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I. INTRODUCTION

Article XI-A of the Pennsylvania Election Code, 25 P.S. § 3031.1 et seq., authorizes the use of electronic voting systems. Section 1105-A of the Election Code, 25 P.S. § 3031.5, requires that the Secretary of the Commonwealth examine all electronic voting systems used in any election in Pennsylvania and that the Secretary make and file a report stating whether, in her opinion, the electronic voting system can be safely used by voters and meets all of the applicable requirements of the Election Code.

On February 11, 2011, M. Glenn Newkirk, President of InfoSENTRY Services, Inc., a consultant retained by the Secretary[1] to conduct an examination of the AccuVote TSX Voting System, version 4.7.8 and Assure 1.2 suite of products (hereinafter referred to as the "Assure 1.2 Voting System"), issued a report recommending that the Secretary certify the Assure 1.2 Voting System under specific conditions. On March 9, 2011, the Secretary certified the Assure 1.2 Voting System for use in elections in the Commonwealth and issued a letter report, in accordance with Section 1105-A(b) of the Election Code, 25 P.S. § 3031.5(b).

Section 1105-A(a) of the Election Code provides that, upon payment of a reexamination fee, "[a]ny ten or more persons, being qualified registered electors of this Commonwealth, may, at any time, request the Secretary of the Commonwealth to reexamine any electronic voting system theretofore examined and approved." 25 P.S. § 3031.5(a). By form letter dated March 25, 2006, a requisite number of electors formally requested that the Secretary conduct a reexamination of a previous version of the Diebold TSX voting system.[2] The Pennsylvania Department of State, acting through then-Secretary of the Commonwealth Pedro A. Cortés, initially rejected the request on the basis that the reexamination was not necessary because (1) the Diebold TSX voting system had only recently been examined and approved by the Secretary and, (2) there was no indication of irregularities or deficiencies that had arisen subsequent to the examination to warrant a reexamination.

In July 2011, this Secretary, having only recently assumed the office, evaluated Section 1105-A of the Election Code and the duties of the Secretary of the Commonwealth to reexamine electronic voting systems when requested to do so pursuant to and consistent with the statute. The Secretary determined that she had a duty to reexamine the Diebold TSX voting system in

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[1] Section 1107-A of the Election Code provides that "[n]o electronic voting system shall, upon any examination or reexamination, be approved by the Secretary of the Commonwealth, or by any examiner appointed by [her], unless it shall be established that such system, at the time of such examination or reexamination" meet specified requirements. 25 P.S. § 3031.7 (emphasis added).

[2] On December 22, 2005, and January 17, 2006, respectively, the Secretary certified the Diebold AccuVote TSX voting system for use in elections in the Commonwealth and issued reports in accordance with Section 1105-A(b) of the Election Code, 25 P.S. § 3031.5(b).

response to the 2006 request. The Assure 1.2 Voting System was not the subject of a specific request for reexamination. The Secretary, however, decided to reexamine the Assure 1.2 Voting System because it uses some of the same components as the Diebold TSX electronic voting system.[3]

Accordingly, the Secretary appointed Jack Cobb ("Examiner"), Laboratory Director of Pro V&V, Inc., as a professional consultant to conduct a reexamination of the Assure 1.2 Voting System pursuant to Section 1105-A(a) of the Election Code, 25 P.S. § 3031.5(a). The Examiner performed the reexamination on March 8, 2012, in Hearing Room 1 of the Commonwealth Keystone Building, 400 North Street, Harrisburg, Pennsylvania. Ian Harlow, Deputy Commissioner of the Department's Bureau of Commissions, Elections and Legislation, and Kathleen Kotula, Assistant Counsel for the Department, represented the Secretary of the Commonwealth. Ed Smith, Vice President for Certification and Compliance, and Ian Piper, Director of Certification, represented Dominion Voting ("Dominion"), the vendor of the Assure 1.2 Voting System. The reexamination was open to the public and was video recorded by staff members from the Department's Bureau of Commissions, Elections and Legislation. Five members of the public attended the reexamination: Sandy Adams of Lycoming County; George Cox and Roger Bunn of Tioga County; Jessica Myers of the U.S. Election Assistance Commission ("EAC"); and Marybeth Kuznik of VotePA.

II. THE ASSURE 1.2 VOTING SYSTEM

The following firmware/software, hardware and peripheral components making up the Assure 1.2 Voting System were presented for reexamination:

- Firmware/Software
  - AccuVote TSX Ballot Station, version 4.7.8;
  - CE, version WCE 410.3.10;
  - BootLoader, version 1.3.11;
  - ABasic Report Files, version 2.2.4;
  - AVPM Model A, version 3.03;
  - Guardian Election Management Software ("GEMS"), version 1.21.5;
  - Assure Security Manager, version 1.2.5;
  - Key Card Tool, version 4.7.8;
  - VC Programmer, version 4.7.8;
  - Voter Card Encoder, version 1.3.3; and
  - ExpressPoll CardWriter, version 1.1.6.

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[3] Section 1105-A(a) of the Election Code provides that the "Secretary of the Commonwealth may, at any time, in [her] discretion, reexamine any such system therefore examined and approved by [her]." 25 P.S. § 3031.5(a).

- Hardware
    - AccuVote TSX DRE, Model D.

- Peripherals
    - Personal Computer Memory Card International Association ("PCMCIA") Transport Media;
    - Voter Card Encoder; and
    - Brother Printer, Model HL 2240.

The following paragraphs in this section briefly describe the Assure 1.2 Voting System and are adopted in large part from Section 2.0 ("System Overview and Identification") of the Test Report for Re-examination of Dominion AccuVote TSX Version 4.7.8 and Assure 1.2 Election Management System, a report issued by the Examiner on August 21, 2012.

The Assure 1.2 Voting System uses the AccuVote TSX voting terminal, which is a Direct Recording Electronic ("DRE") voting device that allows a voter to vote by touching graphics displayed on the unit's Liquid Crystal Display ("LCD")/touch screen interface. The Assure 1.2 Voting System operates on customized software, called Ballot Station, which is designed to display and/or audibly play back electronic ballots and record voter's selections.

The Ballot Station application is used in conjunction with GEMS. Election and ballot information defined in GEMS is programmed to PCMCIA memory cards that are installed on the AccuVote TSX voting devices. These memory cards also store the results of voted ballots that are cast on the AccuVote TSX units. The Ballot Station firmware offers four modes of operation: Pre-Download Mode, Pre-Election Mode, Election Mode and Post-Election Mode. Each mode provides access to a set of functions that may be used in that mode.

The AccuVote TSX voting device consists of two detachable components: the tablet and the base. The AccuVote TSX is operated with the tablet configured inside the base. The tablet contains the following:

- Touch screen upon which the voter votes;
- Processor;
- Memory, including both the memory card as well as internal flash memory;
- Smart card reader, used to identify the voter to the unit;
- Election data and election data transfer compartments;
- Battery status indicator;
- Power status button;
- Power switch;
- Telephone jack;
- Audio jack for headphones;
- Serial jack for numeric keypad;

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- Battery; and
- Rubberized grips.

The tablet is installed in the base, which contains the unit's power jacks, power supply, legs, privacy screens, handle, and optional printer. The combined tablet and base configuration weigh 29 pounds.

III. REEXAMINATION PROCEDURES AND RESULTS

A. Reexamination Process and Procedures

To ascertain whether the Assure 1.2 Voting System can be safely used by the voters at elections in the Commonwealth and meets all the requirements of the Election Code, the Examiner developed test protocols for the reexamination.[4] The test protocols separated the requirements of Article XI-A of the Pennsylvania Election Code, sections 1101-A to 1122-A, 25 P.S. §§ 3031.1 – 3031.22, into four main areas of test execution: (1) Review; (2) Targeted Functionality; (3) System Integration; and (4) Penetration Analysis.

"Review" testing consisted of analyzing ITA[5] and other third-party reports for specific tests pertaining to the requirements of the Pennsylvania Election Code and verifying that the Assure 1.2 Voting System meets those requirements. The Examiner conducted Review testing after the March 8, 2012, reexamination to determine compliance with the following sections of the Election Code:

- 1105-A(a), 25 P.S. § 3031.5(a), requiring that an electronic voting system "ha[ve] been examined and approved by a federally recognized independent testing authority" and that it "meet any voting system performance and test standards established by the Federal Government;"

- 1107-A(11), 25 P.S. § 3031.7(11), requiring that an electronic voting system be "suitably designed for the purpose used, ... constructed in a neat and workmanlike manner of durable material of good quality, ... safely and efficiently useable in the conduct of elections and, with respect to the counting of ballots cast at each district, ... suitably designed and equipped to be capable of absolute accuracy, which accuracy shall be demonstrated to the Secretary of the Commonwealth;"

- 1107-A(13), 25 P.S. § 3031.7(13), requiring that an electronic voting system, "[w]hen properly operated, records correctly and computes and tabulates accurately every valid vote registered;"

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[4] The test protocols, as well as the time and place of the reexamination, were published on the website of the Department of State prior to the start of the reexamination on March 8, 2012.

[5] Section 1105-A(a) of the Election Code requires that an electronic voting system be examined and approved "by a federally recognized independent testing authority," or ITA. 25 P.S. § 3031.5(a).

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- 1107-A(14), 25 P.S. § 3031.7(14), requiring that an electronic voting system be "safely transportable;" and

- 1107-A(15), 25 P.S. § 3031.7(15), requiring that an electronic voting system be "so constructed that a voter may readily learn the method of operating it."

"Targeted Functionality" testing consisted of single-thread test cases designed to ascertain whether the Assure 1.2 Voting System complies with the requirements set forth in the following sections of the Election Code:

- 1107-A(1), 25 P.S. § 3031.7(1), requiring that an electronic voting system "[p]rovide[] for voting in absolute secrecy and prevents any person from seeing or knowing for whom any voter, except one who has received or is receiving assistance as prescribed by law, has voted or is voting;"

- 1107-A(2), 25 P.S. § 3031.7(2), requiring that an electronic voting system "[p]rovide[] facilities for voting for such candidates as may be nominated and upon such questions as may be submitted;"

- 1107-A(3), 25 P.S. § 3031.7(3), requiring that an electronic voting system "[p]ermit[] each voter, at other than primary elections, to vote a straight political party ticket by one mark or act and, by one mark or act, to vote for all the candidates of one political party for presidential electors and, by one mark or act, to vote for all the candidates of one political party for every office to be voted for, and every such mark or act shall be equivalent to and shall be counted as a vote for every candidate of the political party so marked including its candidates for presidential electors, except with respect to those offices as to which the voter has registered a vote for individual candidates of the same or another political party or political body, in which case the automatic tabulating equipment shall credit the vote for that office only for the candidate individually so selected, notwithstanding the fact that the voter may not have individually voted for the full number of candidates for that office for which he was entitled to vote;"

- 1107-A(4), 25 P.S. § 3031.7(4), requiring that an electronic voting system "[p]ermit[] each voter, at other than primary elections, to vote a ticket selected from the nominees of any and all political parties, from the nominees of any and all political bodies, and from any persons whose names are not in nomination and do not appear upon the official ballot;"

- 1107-A(5), 25 P.S. § 3031.7(5), requiring that an electronic voting system "[p]ermit[] each voter to vote for any person and any office for whom and for which he is lawfully entitled to vote, whether or not the name of such person appears upon the ballot as a candidate for nomination or election;"

- 1107-A(7), 25 P.S. § 3031.7(7), requiring that an electronic voting system, "[i]f it is of a type that registers the vote electronically, ... preclude each voter from voting for more persons for any office than he is entitled to vote for or upon any question more than once;"

- 1107-A(10), 25 P.S. § 3031.7(10), requiring, in pertinent part, that an electronic voting system, "[i]f it is of a type that registers the vote electronically, ... permit each voter to change his vote for any candidate or upon any question appearing on the official ballot up to the time that he takes the final step to register his vote and to have his vote computed;"[6] and

- 1107-A(16), 25 P.S. § 3031.7(16), requiring that the "district component of the automatic tabulating equipment" of an electronic voting system that provides for the "computation and tabulation of votes at the district level" include (a) a "visible" public counter that "shall show during any period of operation the total number of ballots entered for computation and tabulation;" (b) lock(s) that "absolutely" prevent "all operation of the tabulation element of the automatic tabulating equipment ... after the polls are closed or where the tabulation of votes is completed;" (c) construction or control capabilities "that, during the progress of voting, ... preclude every person from seeing or knowing the number of votes theretofore registered for any candidate or question; and ... preclude every person from tampering with the tabulating element;" (d) a mechanism or capability that rejects overvotes but, "if used during the period of voting, it may also have the capacity to indicate to a voter that he has improperly voted for more candidates for any office than he is entitled to vote for, and in such case it shall have the capacity to permit the voter to mark a new ballot or to forego his opportunity to make such correction;" and (e) an "element which generates a printed record at the beginning of its operation which verifies that the tabulating elements for each candidate position and each question and the public counter are all set to zero and with an element which generates a printed record at the finish of its operation of the total number of voters whose ballots have been tabulated, the total number of votes cast for each candidate whose name appears on the ballot, and the total number of votes cast for, or against, any question appearing on the ballot."

"System Integration" testing sought to ascertain whether the Assure 1.2 Voting System meets all of the requirements of the Pennsylvania Election Code that can be met by the execution of an entire election. The Examiner created two election definitions, a general election and a closed primary election, to test and measure specific input devices, voting patterns, and results. Pre-voting reports were generated, consisting of a ballot proof report, precinct summary report, and election summary report. The polls were opened and precinct tabulator zero proof reports were generated. The Examiner, staff members from the Bureau of Commissions, Elections and Legislation, and employees from the Bureau of Management Information Systems and other bureaus within the Department of State, input a complex voting pattern consisting of distinct combinations of vote selection, as documented in the test protocols. The polls were closed and

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[6] Section 1107-A(10) of the Election Code distinguishes between electronic voting systems that register votes electronically, like the Assure 1.2 Voting System, and those that "use paper ballots or ballot cards to register votes." 25 P.S. § 3031.7(10). For the latter, the Election Code requires that "the system shall provide that a voter who spoils his ballot may obtain another ballot; any ballot thus returned shall be immediately cancelled and at the close of the polls shall be enclosed in an envelope marked 'Spoiled' which shall be sealed and returned to the county board." 25 P.S. § 3031.7(10).

results reports were generated, including cast vote records and ballot images. The voted data was then transferred to the election management system ("EMS"), and election summary reports, precinct summary reports, and ballot images were printed. At the conclusion of the test, the Examiner conducted a statistical recount of at least 10% of the votes cast by comparing the documented voting pattern with the cast vote records and ballot images. The procedures identified each ballot by the distinct voting pattern that was input. The Examiner also generated a backup of the EMS database and retained a copy with the other test data.

System Integration testing tested proprietary hardware, firmware/software and peripherals, as well as commercial, off-the-shelf materials configured as a precinct- or district-count system. While System Integration testing addressed many of the requirements of the Election Code that were also the subject of Targeted Functionality testing, System Integration testing was designed to test compliance with the following additional sections:

- 1101-A, 25 P.S. § 3031.1, defining "electronic voting system" to mean "a system in which one or more voting devices are used to permit the registering or recording of votes and in which such votes are computed and tabulated by automatic tabulating equipment. The system shall provide for a permanent physical record of each vote cast;"

- 1107-A(4), 25 P.S. § 3031.7(4), requiring that an electronic voting system "[p]ermit[] each voter, at other than primary elections, to vote a ticket selected from the nominees of any and all political parties, from the nominees of any and all political bodies, and from any persons whose names are not in nomination and do not appear upon the official ballot;"

- 1107-A(6), 25 P.S. § 3031.7(6), requiring that an electronic voting system "[p]ermit[] each voter to vote for as many persons for any office as he is entitled to vote for and to vote for or against any question upon which he is entitled to vote and precludes each voter from voting or from having his vote tabulated for any candidate, or upon any question, for whom or upon which he is not entitled to vote;"

- 1107-A(8), 25 P.S. § 3031.7(8), requiring that an electronic voting system "[p]reclude[] each voter from voting or from having his vote tabulated more than once for any candidate for the same office or upon any question, except in districts and for offices where cumulative voting is authorized by law;"

- 1107-A(9), 25 P.S. § 3031.7(9), requiring that an electronic voting system "[p]ermit[] each voter at a primary election to vote only for the candidates seeking nomination by a political party in which such voter is registered and enrolled, and for any candidate for nonpartisan nomination, and for any question upon which he is entitled to vote;" and

- 1117-A, 25 P.S. § 3031.17, requiring that a "county board of elections, as part of the computation and canvass of returns, shall conduct a statistical recount of a random sample of ballots after each election using manual, mechanical or electronic devices of a type different than those used for the specific election. The sample shall include

at least two (2) per centum of the votes cast or two thousand (2,000) votes whichever is the lesser."

"Penetration Analysis" testing sought to ascertain whether the Assure 1.2 Voting System meets the requirement of Section 1107-A(12) of the Election Code, which requires that an electronic voting system "provides acceptable ballot security procedures and impoundment of ballots to prevent tampering with or substitution of any ballots or ballot cards." 25 P.S. § 3031.7(12).

Precinct tabulation devices were configured as if for delivery to a polling place from a warehouse; this included all suggested seals and locks. The Examiner inspected the device for the ability to tamper with the transportation case and the device inside the case. The inspection examined the ports, the outer case, and memory devices from the aspect of the device as delivered to the polling place and configured for voting. The Examiner also examined both the precinct device and the EMS for password management of administrative functions and ensured the system counter cannot be reset by unauthorized persons. The Examiner photographed the configuration and analyzed the configuration for possible vulnerabilities.

B. Reexamination Specifications

In accordance with the test protocols, the reexamination of the Assure 1.2 Voting System occurred in an environmentally controlled room, which was selected primarily because it was large enough to hold the voting system, the participants, and the public. The room was configured such that the Examiner, the representatives of the Secretary of the Commonwealth, and Dominion each had their own independent work areas. Members of the public were allowed to observe the reexamination.[7]

SLI Global Solutions, a trusted source, provided the Department's Bureau of Commissions, Elections and Legislation with a trusted build of the Assure 1.2 Voting System prior to the date of the reexamination. On the day of the reexamination, Dominion provided three AccuVote TSX precinct tabulation devices, the EMS with the test election definitions, and the components necessary to load the trusted build onto the precinct tabulation devices. The Examiner provided Dominion with the firmware/software that had been provided by the trusted source. Dominion then loaded the firmware/software onto the required media and installed the firmware/software on each of the precinct tabulation devices. Once the firmware/software was loaded onto the precinct tabulation devices, Dominion was not allowed access to the internal

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[7] The Secretary published the time and place of the reexamination on the Department of State website prior to the date of the reexamination. Additionally, the Department sent a letter to the primary contact for the group of electors who requested the reexamination of the Diebold TSX electronic voting system, notifying them of the time and place of the reexamination.

components of the devices without consent of the Examiner or a representative of the Secretary of the Commonwealth.

C.   Reexamination Results

On August 21, 2012, the Examiner issued the test report for the Assure 1.2 Voting System.

1.   Review Testing Results

The Review testing performed by the Examiner demonstrates that the Assure 1.2 Voting System meets the relevant requirements of the Pennsylvania Election Code.

Specifically, the ITA or, as such authorities are now called, the Voting System Test Laboratory ("VSTL"), reports and certifications submitted by Dominion satisfy the requirements of Section 1105-A(a) of the Election Code, 25 P.S. § 3031.5(a); the Assure 1.2 Voting System has been examined and approved by a VSTL as meeting the applicable performance and test standards established by the federal government.

The design requirements of Sections 1107-A(11) and (14) of the Election Code, 25 P.S. §§ 3031.7(11) & (14), are met by the documented Product Safety Test and Accuracy Test in the submitted VSTL report, which the Examiner deemed acceptable. Additionally, the accuracy requirements of Sections 1107-A(11) and (13), 25 P.S. §§ 3031.7(11) & (13), are met by the documented Accuracy Test in the submitted VSTL report, which the Examiner found to be acceptable.

Section 1107-A(14) of the Election Code, 25 P.S. § 3031.7(14), is further met by the combination of Hardware Non-Operating Environmental Tests performed by the VSTL, which included: bench handling, vibration, low temperature, high temperature, and humidity. These components tests were designed to test the storage of precinct tabulation devices between elections, as well as transportation between the storage facility and the polling place.

Section 1107-A(15) of the Election Code, 25 P.S. § 3031.7(15), is met by the Summative Usability Report provided to the VSTL for EAC Certification. Further, the Examiner did not encounter any issues performing the method of operation for standard voting sessions or ADA voting sessions during execution of the reexamination. Additionally, Department of State staff members were used to input voting data for the System Integration testing, and no operational issues were reported.

2.   Targeted Functionality Testing Results

The protocols relating to Targeted Functionality testing developed and published prior to the reexamination consisted of nine (9) separate tests. The Examiner conducted each of these tests during the reexamination with necessary modifications, as indicated below (see Part III.D).

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No issues or material anomalies were experienced during these tests, and the objective criteria established in the test protocols were met.

Specifically, the reexamination of the Assure 1.2 Voting System demonstrates that, if set up pursuant to item four (4) of the Directive Concerning the Use, Implementation and Operation of Electronic Voting Systems by the County Boards of Elections issued by the Secretary of the Commonwealth on April 28, 2009, the Assure 1.2 Voting System provides the requisite voter secrecy in compliance with Section 1107-A(1) of the Election Code, 25 P.S. § 3031.7(1). Additionally, the Assure 1.2 Voting System successfully records and reports:

- votes for "1 of 1," "N of M," and "Question" contests for both a standard voting session and an ADA voting session in compliance with Section 1107-A(2), 25 P.S. § 3031.7(2);

- straight party votes and demonstrated the "Pennsylvania Method" of straight party voting for both a standard voting session and an ADA voting session, meeting the requirements of Section 1107-A(3), 25 P.S. § 3031.7(3); and

- straight party and write-in votes for both a standard voting session and an ADA voting session, meeting the requirements of Sections 1107-A(4) & (5), 25 P.S. §§ 3031.7(4) & (5).

The Assure 1.2 Voting System also successfully prohibits a voter from selecting more than the number of allowable selections, including write-in votes, for both a standard voting session and an ADA voting session, in compliance with Section 1107-A(7), 25 P.S. § 3031.7(7). The Assure 1.2 Voting System provides a voter with a review screen and allows a voter to return to either the beginning of the ballot or an individual contest to make changes to his or her selection(s) before casting the ballot for both a standard voting session and an ADA voting session, meeting the requirements of Section 1107-A(10), 25 P.S. § 3031.7(10). Lastly, the Assure 1.2 Voting System provides a public counter that increments with each cast vote; provides the ability to be locked after the polls are closed; precludes the re-opening of the polls after they are closed; possesses design features that allow tamper evident locks and seals to be placed on the voting devices; and provides a zero proof and results report, as required under Section 1107-A(16), 25 P.S. § 3031.7(16).

3. System Integration Testing Results

The Assure 1.2 Voting System successfully completed both the general and closed primary elections. The Examiner experienced no issues or material anomalies during these tests, and the Assure 1.2 Voting System met the objective criteria set forth in the test protocols. Accordingly, the Assure 1.2 Voting System meets the requirements of Sections 1101-A and 1117-A of the Pennsylvania Election Code, 25 P.S. §§ 3031.1 & 3031.17, in that the system is able to provide for a permanent physical record in the format of the cast vote record and ballot images that can be used to conduct a statistical recount. The System Integration testing further

confirmed that the Assure 1.2 Voting System complies with Section 1107-A(4), 25 P.S. § 3031.7(4), in that the system successfully allowed voters in a general election to vote for candidates from all parties and political bodies, including write-in candidates. The Assure 1.2 Voting System complies with Section 1107-A(9), 25 P.S. § 3031.7(9), in that test voters in the primary election were only able to vote for candidates seeking nomination from their party and the system rejected attempts to vote for candidates seeking nomination from the other party. The Assure 1.2 Voting System meets the requirements for Sections 1107-A(6) and (8), 25 P.S. §§ 3031.7(6) & (8), in that the test voters cast votes on different ballot styles for candidates and questions and the Assure 1.2 Voting System precluded test voters from over voting.

4. Penetration Analysis Results

During the performance of this analysis, the Assure 1.2 Voting System provided acceptable ballot security procedures and impoundment of ballots to prevent tampering with or substitution of any ballots or ballot cards. It also provided acceptable password management and restriction of access to administrative functions. Therefore, the Assure 1.2 Voting System meets the requirements of Section 1107-A(12) of the Pennsylvania Election Code, 25 P.S. § 3031.7(12).

D. Observations

1. Review Testing Observations

As a result of the Review testing, the Examiner concluded that the Assure 1.2 Voting System complies with the requirements of the relevant sections of the Pennsylvania Election Code.

The Examiner noted that although the submitted reports did not contain specific data for a Product Safety Test, see Sections 1107-A(11) and (14) of the Election Code, 25 P.S. §§ 3031.7(11) & (14), a test to meet the product safety requirements of the Federal Election Commission 2002 Voting System Standards must be performed to receive an EAC Certification. Given that the Assure 1.2 Voting System received such federal certification, it can be determined that the Assure 1.2 Voting System met the requirement of this Product Safety Test during the federal testing campaign.

2. Targeted Functionality Testing Observations

As a result of the Targeted Functionality testing, the Examiner concluded that the Assure 1.2 Voting System complies with the requirements of the relevant sections of the Pennsylvania Election Code.

The Examiner noted that the observer reported being able to see parts of the ballot and voter inputs while executing both the standard voting and ADA test cases for Section 1107-A(1) of the Election Code, 25 P.S. § 3031.7(1), which requires an electronic voting system to provide

for voting in secrecy. For the ADA test case, the Examiner noted that he tested the Assure 1.2 Voting System while activated for a standard voting session and that the LCD display is not active in an actual ADA voting session. The Examiner concluded that the Assure 1.2 Voting System, if set up pursuant to item four (4) of the Directive Concerning the Use, Implementation and Operation of Electronic Voting Systems by the County Boards of Elections issued by the Secretary of the Commonwealth on April 28, 2009, provides the requisite voter secrecy so that an observer is unable to see whom a voter voted for, in compliance with the Pennsylvania Election Code.

3.   System Integration Testing Observations

The Examiner did not observe any issues or anomalies during the execution of the System Integration testing. As noted above, as a result of this testing, the Examiner concluded that the Assure 1.2 Voting System complies with the requirements of the relevant sections of the Pennsylvania Election Code.

4.   Penetration Analysis Observations

The Examiner did not observe any issues or anomalies during the execution of the Penetration Analysis testing. As noted above, as a result of this testing, the Examiner concluded that the Assure 1.2 Voting System complies with the requirements of the relevant sections of the Pennsylvania Election Code.

IV.   **CONDITIONS FOR CERTIFICATION**

Given the results of the March 8, 2012, reexamination and the findings of the Examiner as set forth in his August 21, 2012, report, the Secretary of the Commonwealth certifies the Assure 1.2 Voting System in accordance with the conditions detailed in the letter report dated March 9, 2011, the conditions detailed in the reports for the Diebold AccuVote TSX voting system dated December 22, 2005, and January 17, 2006, and the following additional condition:

- Pennsylvania counties using the Assure 1.2 Voting System must comply with the Directive Concerning the Use, Implementation and Operation of Electronic Voting Systems by the County Boards of Elections issued by the Secretary of the Commonwealth on April 28, 2009, and in particular adhere to item four (4) of the directive when setting up and positioning the precinct tabulation devices in the polling place to assure compliance with the constitutional and statutory requirements that secrecy in voting be preserved (see Pa. Const. Art. VII. § 4; and Section 1107-A(1) of the Election Code, 25 P.S. § 3031.7(1)).

V.   RECOMMENDATIONS

The Secretary of the Commonwealth reaffirms any recommendations in the Secretary's letter certification report dated March 9, 2011, and the reports for the Diebold AccuVote TSX voting system dated December 22, 2005, and January 17, 2006.

VI.   CONCLUSION

As a result of the reexamination conducted on March 8, 2012, and after consultation with the Department's staff and the Examiner, the Secretary of the Commonwealth concludes that the Assure 1.2 Voting System can be safely used by voters at elections as provided in the Pennsylvania Election Code and meets all of the requirements set forth in the Code, **provided it is implemented with the conditions listed in Section IV of this report, as well as conditions listed in the March 9, 2011, letter report, and conditions listed in the December 22, 2005, and January 17, 2006, reports for the Diebold AccuVote TSX**. Accordingly, the Secretary reaffirms certification of the Assure 1.2 Voting System and continues to approve the Assure 1.2 Voting System for use in this Commonwealth.

In addition, pursuant to the Directive on Electronic Voting Systems issued by the Secretary of the Commonwealth on August 8, 2006, the Directive Concerning the Use, Implementation and Operation of Electronic Voting Systems by the County Boards of Elections issued on April 28, 2009, and Section 1105-A(d) of the Pennsylvania Election Code, 25 P.S. § 3031.5(d), this certification and approval is valid only for the voting system discussed in this Report. If the vendor or a County Board of Elections makes **any** changes to the Assure 1.2 Voting System subsequent to the date of its reexamination, it must **immediately** notify the Pennsylvania Department of State and the relevant federal testing authority or laboratory. Failure to do so may result in the decertification of the Assure 1.2 Voting System in the Commonwealth of Pennsylvania.

All jurisdictions that have implemented the Assure 1.2 Voting System pursuant to the certification of March 9, 2011, must implement the Assure 1.2 Voting System under this certification and must comply with the directives found in this Report, previous reports for the Assure 1.2 Voting System, and any directives issued by the Secretary of the Commonwealth regarding the use of this System, including the Directive Concerning the Installation of Files Regarding the Diebold AccuVote TSX Electronic Voting System issued by the Secretary of the Commonwealth on May 2, 2006, in accordance with Section 1105-A(a)-(b) of the Election Code, 25 P.S. § 3031.5(a)-(b).

The Assure 1.2 Voting System will accommodate no more than 350 voters per unit.

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