New Mexico
Office of the Secretary of State
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Voting System Recertification

Report of Findings for the Voting System Certification Committee

July 14, 2021

Contents

1. Introduction

Pursuant to Section 1-9-7.4(A) NMSA 1978, the Secretary of State (SOS) is required to review and recertify each voting system already in use in the state in the year following the presidential election.

This report is being published by the Office of the Secretary of State as required by Section 1-9-14(C) NMSA 1978, after an examination of all application and test materials submitted by the voting system vendors. The report and applications for certification submitted by each vendor is available on the SOS website at https://www.sos.state.nm.us/voting-and-elections/data-and-maps/voting-system-certification-committee/ and is subject to a 21 day public comment period as of the date of this report.

As used in Chapter 1, Article 9 NMSA 1978, "voting system" means a combination of mechanical, electromechanical or electronic equipment, including the software and firmware required to program and control the equipment, that is used to cast and count votes, and also including any type of system that is designed to print or to mark ballots at a polling location; equipment that is not an integral part of a voting system but that can be used as an adjunct to it is considered to be a component of the system. Based upon this definition, there are two types of voting systems, and a total of three systems, eligible for recertification that are discussed in this report:

1. Tabulation System
    - Dominion Voting Systems (DVS) – Democracy Suite v5.4
2. Ballot Printing Systems
    - Robis Elections – AskEd System
    - Automated Election Systems (AES) – AutoVote System

Any previously certified system that does not comply with the requirements of the Election Code and is not recertified by the Secretary of State shall be deemed decertified for use in the state.

2. Voluntary Voting System Guidelines

The Voluntary Voting System Guidelines (VVSG), which are adopted by the United States Election Assistance Commission (EAC), are a set of specifications against which a voting system can be tested to determine if the system meets the identified standards. The New Mexico Election Code, Section 1-9-14 NMSA 1978, requires that all voting systems used for the conduct of elections in accordance with the Election Code be tested by an independent testing authority to the most recently adopted VVSG[1].

In February 2021, the EAC adopted new standards, the VVSG 2.0. The EAC is currently working with the independent Voting System Test Labs (VSTLs) [2] to complete the federal accreditation process that will allow the VSTLs to test systems to the VVSG 2.0 requirements. This process is expected to be completed by early 2022. This process also includes the definition of all test assertions to be used by the VSTLs in their testing. As a result, there are currently no VSTLs with accreditation to test to VVSG 2.0 nor are there any voting systems vendors who have been certified to the new VVSG 2.0 standards.

Therefore, for purposes of publishing this report, the SOS has reviewed the last available VSTL laboratory report for DVS based upon the previous VVSG 2005 standards. The SOS recommends that the Voting System Certification Committee (VSCC) reconvene to evaluate the voting system again once a testing and accreditation process have been established by the EAC for the new VVSG 2.0 standards.

3. Election Code - Voting System Requirements

In addition to meeting the specifications of the VVSG, as applicable, both the tabulation systems and the ballot printing systems are also required to meet specific requirements set forth in statute. Specifically, Sections 1-9-7.7 to 1-9-7.10 NMSA 1978 are required for all tabulation systems and Sections 1-9-20 to 1-9-22 NMSA 1978 set the requirements for ballot printing systems.

To verify that these sections are met, the SOS requested that each vendor provide specific information about how their systems adhere to the statutory requirements, including any technical or user documentation or references that can be reviewed to further verify that the requirements have been met.

Additionally, the ballot printing system vendors were subjected to a test conducted by a VSTL in 2011 to independently determine whether their respective systems conformed to the requirements of the Election Code. Both vendors have provided confirmation that changes to the system since the 2011 testing are not relevant or impactful to the statutory provisions.

[1] The VVSG does not contain specific guidelines for ballot printing systems and, therefore, the EAC does not provide for a certification process for these types of systems. The VVSG only applies to tabulation systems.
[2] A list of EAC certified VSTLs can be found on the EAC website at https://www.eac.gov/voting-equipment/voting-system-test-laboratories-vstl/.

4. Voting System Certification Committee (VSCC)

Following the period of public comment, the SOS is required to submit a report of findings and any public comment to the VSCC. The VSCC shall review the information and make recommendations regarding the suitability and reliability of the use of the equipment in the conduct of elections and shall recommend that a voting system be certified for use only if it complies with the requirements in the Election Code.

If the VSCC determines that the voting system does not comply with all requirements for certification, the SOS shall allow 30 days for an appeal of the findings to be filed or for the deficiencies to be corrected by the vendor(s). Following this period, the SOS shall prepare a final written report and the VSCC shall reconvene to consider the report and make final recommendations regarding the reliability and suitability of the voting equipment.

If the VSCC recommends that the voting system is suitable for use in elections in New Mexico, the SOS shall recertify the equipment for use in elections in this state, within 30 days of receiving the recommendation from the VSCC. Likewise, if the VSCC does not recommend the voting system, the SOS shall deny the application or decertify the equipment for use in elections in this state.

5. Tabulation System Certification

5.1 Dominion Voting Systems

The SOS has verified, based upon a review of the VSTL test report prepared by Pro V&V dated August 24, 2017, that the DVS Democracy Suite 5.4 voting system meets the standards set forth in VVSG 2005. Further, except as described below in regard to ballot length in Section 1-9-7.10(A) NMSA 1978, applicable requirements outlined in Chapter 1, Article 9 of the Election Code have also been met by DVS.

Democracy Suite v5.4 has been utilized in New Mexico elections since being certified in 2017 and has repeatedly passed all pre- and post-election verification and testing processes and has proven accurate and reliable in post-election voting system checks and recounts. Additionally, DVS has offered the State a commitment to bring their system into compliance with the VVSG 2.0 requirements and test assertions once they become available from the EAC.

Voting System components submitted by DVS for re-certification:

- **Democracy Suite Election Management System v5.4.17.5** – application software used to manage the election workflow, from import of election definition information, ballot layout, voting machine programming and pre-election test, Election Night reporting, and post-election activities.

- **Democracy Suite Adjudication v5.4.17.3 –** application software used to allow ballots with exceptions or out-stack conditions such as over-votes, blank ballots, write-ins and marginal marks to be resolved on-screen and sent to tally.

- **ImageCast Evolution v5.4.8.3** – an accessible voting machine that combines an optical scanner and a ballot marking device, suitable for use by all voters while complying with the accessibility requirements of the Help America Vote Act and the 2005 Voluntary Voting System Guidelines (VVSG).

- **ImageCast Central v5.4.2.1** – a high-speed absentee ballot central scanning solution that utilizes Canon brand scanners (DR-X10C and DR-G1130).

- **ImageCast Central v5.4.2.2** – The State previously approved for use in jurisdictions using the Rank Choice Voting method in Democracy Suite 5.4 voting system.

Specific requirements for voting systems outlined in Chapter 1, Article 9 of the Election Code:

1-9-7.1. Voting system; use of paper ballot.

A. All voting systems used in elections covered by the Election Code [Chapter 1 NMSA 1978] shall use a paper ballot on which the voter physically or electronically marks the voter's choices on the ballot itself.

Democracy Suite 5.4 is an optical scan voting system. Voters with accessibility needs mark their ballot using the ImageCast® Evolution, generating a paper ballot.

1-9-7.7. Voting systems; technical requirements.

Voting systems certified for use in state elections shall:

A. Have a unique embedded internal serial number for audit purposes

Each unit carries a serial number in non-volatile internal memory, given to the unit at the time of its manufacture.

B. Be supplied with a dust- and moisture-proof cover for transportation and storage purposes

Each ballot box has a top cover for this purpose; individual units can be transported in a dust and moisture proof case.

C. If the net weight of the system, or aggregate of voting device parts, is over twenty pounds, have self-contained wheels so that the system can be easily rolled by one person on rough pavement and can roll through a standard thirty-inch door frame

All ballot boxes have casters, are designed to be moved by one person, and fit through a 30-inch door.

D. Be a stand-alone, non-networked election system such that all pre-election, Election Day and post-election events and activities can be recorded and retained in each device

Dominion recommends strongly that the election systems never be attached to the Internet or other

network. Democracy Suite 5.4 is capable of operating in this manner.

E. Employ scalable technology allowing easy enhancements that meet United States Election Assistance Commission standards and state law

Democracy Suite 5.4 has a variety of scalable configurations and platform options. It has been certified by the U.S. Election Assistance Commission (EAC) to the VVSG 2005 requirements.

F. Have ancillary equipment, such as printers, power sources, microprocessors and switch and indicator matrices, that is installed internally or is modular and transportable

All necessary printers, power supplies, and similar ancillary devices required for precinct use are built into the voting machine or ballot box.

G. Display publicly the number of ballots processed

The ImageCast Evolution scanner continuously shows the number of ballots processed (Public Counter) when polls are open.

H. Be able to print:

(1) An alphanumeric printout of the contests, candidates and vote totals when the polls are opened so that the poll workers can verify that the counters for each candidate are on zero;
(2) An alphanumeric printout of the contests, candidates and vote totals at the close of the polls, which printouts shall contain the system serial number and public counter total; and
(3) As many copies of the alphanumeric printouts as necessary to satisfy state law

All ImageCast equipment is capable of printing reports to these specifications. They also allow the jurisdiction to program a default number of report copies and allow the poll worker to print additional report copies as needed.

I. Include a feature to allow reports to be sent to an electronic data file.

Reports can be exported to Excel, pdf, and other formats at the jurisdiction's discretion.

1-9-7.8. Voting systems; operational requirements.

Voting systems certified for use in state elections shall:

A. Have internal application software that is specifically designed and engineered for the election application

All internal application software is produced by Dominion Voting Systems, specifically for elections.

B. Include comprehensive diagnostics designed to ensure that failures do not go undetected

All scanners have a Power-On Self-Test (POST) as well as continuous monitoring of all critical functions so that malfunctions result in immediate warning to the poll worker and in unrecoverable situations, unit shutdown.

C. Have a real-time clock capable of recording and documenting the total time polls are opened

All scanners have a real-time clock. Poll opening and closing events are recorded in the unit's audit log.

D. Have a self-contained, internal backup battery that powers all components of the system that are powered by alternating current power; and, in the event of a power outage in the polling place:

(1) The self-contained, internal backup battery power shall engage with no disruption of operation for at least two hours and with no loss of data; and

All precinct-based scanners contain an internal battery tested to maintain at least two hours of operation.

(2) The system shall maintain all vote totals, public counter totals and the internal clock time in the event that the main power and battery backup power fail.

In the event that battery power is exhausted, all vote totals, counters, clock time, and any votes cast and confirmed to a voter are saved.

1-9-7.9. Voting systems; memory; removable storage media device; requirements.

Voting systems certified for use in state elections shall:

A. Be programmable with removable storage media devices

Each ImageCast scanner, as well as Central Count scanners, are programmed through Compact Flash cards.

B. Contain ballot control information, summary vote totals, maintenance logs and operator logs on the removable storage media device

Ballot control information, summary vote totals, maintenance logs and operator logs are carried on the Compact Flash cards for each scanner and can be uploaded along with results from that scanner.

C. Ensure that the votes stored on the removable storage media device accurately represent the actual votes cast

ImageCast Evolution utilizes a pair of Compact Flash cards, writing results information to each one and checking that written information so that the accuracy of the information on each card is ensured. Mismatches in card content cause the unit to give a warning message then shut down.

D. Be designed so that no executable code can be launched from random access memory

ImageCast scanners are protected from code being launched from random access memory. The firmware for each unit is encrypted and signed when placed in the unit and only that code will execute on the scanner.

E. Have any operating system software stored in nonvolatile memory, which shall include internal quality checks such as parity or error detection and correction codes, and which software shall include comprehensive diagnostics to ensure that failures do not go undetected

The operating system for the scanners is stored in non-volatile memory on each unit. Each unit undergoes a Power-On Self-Test (POST) to ensure the integrity of its firmware prior to allowing polls to be opened.

F. Allow for pre-election testing of the ballot control logic and accuracy, with results stored in the memory that is used on Election Day, and shall be capable of printing a zero-results printout prior to these tests and a results printout after the test

Pre-election logic and accuracy testing is accomplished using the same compact flash cards in each unit that will be utilized on Election Day. Zero tapes are available at the start of pre-election logic and accuracy test as well as Election Day. Results tapes are also available after pre-election logic and accuracy testing and Election Day.

G. Have internal audit trail capability such that all pre-election, election day and post-election events shall be stored, recorded and recovered in an easy-to-read printed form and be retained within memory that does not require external power for memory retention

Each ImageCast scanner, as well as the central election management software maintain audit trails in accordance with VVSG 2005 requirements. These can be recovered in soft files and printed to hard copy as desired. The logs are stored on the Compact Flash cards in the scanners until uploaded to the election management software.

H. Possess the capability of remote transmission of election results to a central location only by reading the removable storage media devices once they have been removed from the tabulation device after the poll closing sequence has been completed

The Democracy Suite 5.4 system accommodates remote transmission sites wherein, after a paper tape results report is printed, the Compact Flash cards containing results and logs are removed from the scanners and the contents transmitted subsequent to that removal.

I. Prevent data from being altered or destroyed by report generation or by the transmission of results.

Report generation and transmission do not affect the raw results or logs. This applies to any of the scanners and the election management software.

1-9-7.10. Voting systems; ballot handling and processing requirements.

Voting systems certified for use in state elections shall:

A. Accept a ballot that is a minimum of six inches wide and a maximum of twenty-four inches long, in dual columns and printed on both sides

ImageCast scanners meet this requirement, being able to scan 8.5 inch by 11, 14-, 17-, 20-, and 22-inch ballots, two to four columns, double-sided.

SOS finding: At this time, the DVS system being considered for recertification falls short of this particular requirement with the capability to accept ballots up to 22” long. In fact, no tabulator system

submitted for certification in New Mexico or used in statewide elections since this law was enacted in 2010 has ever met the 24" long maximum included in statute. The longest ballot that has been produced to date for use in a statewide election was 19" long printed on both sides. Additionally, all testing conducted on the ballot printing systems, including throughput testing and printer certification testing, has been conducted using ballots 19" long or less.

B. Accept a ballot in any orientation when inserted by a voter

Any of the four possible orientations are read by ImageCast scanners.

C. Have the capability to reject a ballot on which a voter has made more than the allowable number of selections in any contest

Over voted contests will cause a ballot to be rejected by the scanner.

D. Be designed to accommodate the maximum number of ballot styles or ballot variations encountered in the largest New Mexico election jurisdiction

Democracy Suite is designed to accommodate the largest jurisdictions in the United States and can easily accommodate New Mexico jurisdiction geographic and ballot layout needs.

E. Be able to read a single ballot with at least four hundred twenty voting positions

Democracy Suite can prepare ballots with 462 ballot positions.

1-9-7.11. Voting systems; source code; escrow.

As a condition of initial certification and continued certification, the source code that operates a voting system shall be placed in escrow and be accessible to the state of New Mexico in the event the manufacturer ceases to do business or ceases to support the voting system.

Dominion utilizes the NCC Group as a third-party escrow agent. The State of New Mexico has been given beneficiary status for the escrowed products of this system configuration. The release conditions meet the state's requirements.

1-9-13. Voting system technicians.

A. Voting system technicians shall be trained and certified by the secretary of state as to their adequacy of training and expertise on voting systems certified for use in the state.

Dominion has a variety of training courses and materials to aid in compliance with this requirement.

6. Ballot Printing System Certification

The VVSG does not contain specific guidelines for systems designed to print ballots and, therefore, the EAC does not provide for a certification process for these types of systems. However, the definition of voting system in the New Mexico Election Code does include systems designed to print ballots and

provides for specific statutory requirements in Sections 1-9-20 to 1-9-22 NMSA 1978 used to determine suitability and reliability for certification purposes.

SLI Global Solutions, an independent testing laboratory, accredited by the EAC conducted tests on both the Robis AskED Ballot Printing System and the AES Autovote System in December 2011 to determine whether the systems met the specific requirements set forth in statute. Additionally, both vendors provided evidence of undergoing independent print qualification procedures with DVS to ensure ballots generated by these systems can be accurately scanned by the DVS Imagecast Evolution tabulation system.

Both of these vendors have requested recertification based upon the original VSTL lab reports and have assured the SOS that any software enhancements made since the last test report have not impacted the statutorily required functionality nor is there a test procedure in place for the specific improvements made. Further, all enhancements made to the software have been successfully implemented and utilized in several elections already conducted within the State of New Mexico including the 2020 primary and general elections.

6.1 Robis Elections

Voting System(s) submitted for re-certification: AskED Ballot Printing System

Voting System Testing Laboratory (VSTL): SLI Global Solutions

Original Test Date: December 2011

Specific requirements for voting systems outlined in Chapter 1, Article 6 of the Election Code:

1-6-5.7(D). Early voting

D. When voting at an early voting location, the voter shall provide the required voter identification to the election board, county clerk or the clerk's authorized representative. If the voter does not provide the required voter identification, the voter shall be allowed to vote on a provisional ballot. If the voter provides the required voter identification, the voter shall be allowed to vote after subscribing an application to vote on a form approved by the secretary of state or its electronic equivalent approved by the voting system certification committee. The county clerk or the clerk's authorized representative shall make an appropriate designation on the signature roster or register next to the voter's name indicating that the voter has voted early.

The system provides for a voter to subscribe to an application to vote prior to issuance of a ballot for early voting. See Appendix 1 for a sample of the form.

Specific requirements for voting systems outlined in Chapter 1, Article 9 of the Election

Code:

Further detail regarding each test case conducted by an independent testing laboratory can be found in the SLI Global Solutions testing report.

1-9-20. Systems designed to print ballots at polling locations; Ballot preparation requirements.

Systems designed to print ballots at polling locations shall provide the general capabilities for ballot preparation and shall be capable of:

A. Enabling the automatic formatting of ballots in accordance with the requirements of the Election Code, as amended from time to time, for offices, candidates and questions qualified to be placed on the ballot for each political subdivision and election district

Using Primary election style and General election style ballots as supplied by the State of New Mexico, it was verified that the Robis ballot on demand system is capable of printing a ballot automatically formatted with the appropriate offices, candidates and questions qualified to be placed on the ballot for each political subdivision and election district, as well as with any pertinent overlays.

B. Supporting the maximum number of potentially active voting positions

Using a ballot style representative of a maximum active voting position layout, as supplied by the State of New Mexico, it was verified that the Robis ballot on demand system is capable of printing a ballot supporting the maximum active voting positions.

C. Generating ballots for a primary election that segregate the choices in partisan contests by party affiliation

Using a Primary election style ballot, as supplied by the State of New Mexico, it was verified that the Robis ballot on demand system is capable of printing ballots for a primary election that segregates the choices in party contests, by party affiliation.

D. Generating ballots that contain identifying codes or marks uniquely associated with each format

Printing of different ballot styles within a jurisdiction, for both primary and general elections, it was verified that the Robis ballot on demand system is capable of generating ballots that contain identifying codes or marks that are uniquely associated with each format.

E. Ensuring that voting response fields properly align with the specific candidate names and/or questions printed on the ballot

Printing single ballots and batches of ballots, of both primary and general elections, it was verified that the Robis ballot on demand system generates voting response fields properly aligned with the specific candidate names and/or questions printed on the ballot.

F. Generating ballots which can be tabulated by all certified voting systems in the state

Using ballots supplied by the State of New Mexico, of both primary and general elections, it was verified that the Robis ballot on demand system is able to produce ballots which are capable of being tabulated by the certified voting systems in the state.

G. Generating a ballot for an individual voter based on voter registration data provided by state or county

Using the voter registration data set provided by the State of New Mexico, it was verified that the Robis ballot on demand system is able to generate an individual voter's ballot, as needed.

H. Functionality in both absentee and early voting environments

Using primary and general election style ballots, as provided by the State of New Mexico, the functionality was verified that the Robis ballot on demand system is functional in both absentee and early voting environments. Elections configured included: an early voting primary, an absentee primary, an early voting general and an absentee general election. This allowed the system to produce ballots, as well as detailed reporting for each election.

I. Providing absentee ballot tracking ability

It was verified that the Robis ballot on demand system provides adequate absentee ballot tracking capabilities.

J. Uniform allocation of space and fonts used for each office, candidate and question such that the voter perceives no active voting position to be preferred to any other

Using ballots supplied by the State of New Mexico, it was verified that the Robis ballot on demand system is able to produce ballots, as created by voting systems certified by the State, with uniform allocation of space and fonts, such that no active voting position is perceived to be preferential to any other position.

K. Rendering the ballot in any of the languages required by the Voting Rights Act of 1965, as amended

Using ballots supplied by the State of New Mexico, it was verified that the Robis ballot on demand system is able to render the ballot in any language, as prescribed by the State (English and Spanish).

L. Conformity with voting system vendor specifications for type of paper stock, weight, size, shape, size, font and location of voting positions used to record votes, folding, bleed through,

and ink for printing

Using ballots supplied by the State of New Mexico, it was verified that the Robis ballot on demand system is able to utilize paper and ink type that conforms to voting systems, certified by the State, prescribed requirements, such that ballots are appropriately produced.

M. Interfacing with the statewide voter file for the exchange of data.

Using the voter registration data supplied by the State, the Robis ballot on demand system was verified to be capable of interfacing with the statewide voter file, for the exchange of data.

1-9-21. Systems designed to print ballots at polling locations; Security requirements.

Systems designed to print ballots at polling locations shall provide the security capabilities for ballot preparation and shall be capable of:

A. Providing a full audit trail of individual voter activity

It was verified that the Robis ballot on demand system is capable of adequately providing full audit trails for individual voter activities.

B. Providing full ballot production audit logs for all activity including, but not limited to, absentee by mail, in person absentee, early voting, provisional voting and spoiling ballots

The Robis ballot on demand system is capable of producing this information. The audit log contains all of the required items. The system is not meant for the poll worker to be able to search through the logs. It is assumed, by Robis, that the log would be analyzed either using SQL queries or by loading into excel or another program. At that point, the user can see any subset of the audit log data they so choose.

C. Creation and preservation of an audit trail of every ballot issued during a period of interrupted communication in the event of loss of network connectivity

It was verified that the Robis ballot on demand system is capable of creation and preservation of an audit trail of every ballot issued, from its system, during periods of interrupted communications due to the loss of network connectivity.

D. Suitable security passwords at user, administrator and management levels

The Robis ballot on demand system provides suitable password security policies such that the system is secure to each role level implemented, though there are only two roles provided, user and management. No Administration type role is provided through the system. Robis utilizes the Windows operating system Administrator role for the third role level.

E. Preventing the modification of ballot formatting by polling place users

It was verified that the Robis ballot on demand system provides suitable security, by implementation of appropriate password policy enforcement and role enforcement, that no polling place user is able to modify a ballots format.

F. Retaining full functionality and capability of printing ballots during a period of interrupted communication in the event of a loss of network connectivity

It was verified that the Robis ballot on demand system does retain full functionality and capability of printing ballots during periods of interrupted communications, such as the event of a loss of network connectivity, by removing network connectivity to the system.

1-9-22. Systems designed to print ballots at polling locations; Hardware, software and usability requirements.

Systems designed to print ballots at polling locations shall:

A. Provide hardware requirements that:

(1) Shall be networkable and scalable for multi-user environments;

The Robis ballot on demand hardware complies with this requirement.
The HP LaserJet 5200tn (O7545A) printer has four possible network printer configurations:

1. Connect directly to the network (direct mode or peer-to-peer printing).
2. Connect directly to the network and a shared print queue is configured on a network file/print server (client-server printing).
3. Connect directly to a PC that acts as a print server, allowing the printer to be shared to PC clients on the network.
4. PC clients connect to a device that has already been set up on the network or connect to a print queue that is shared from either another PC client or file/print server. Complies with this requirement.

HP LaserJet 5200tn (O7545A) printer

- **Connectivity, standard**: 1 IEEE -1284 parallel; 1 USB; 1 Fast Ethernet 10/100; 1 EIO
- **Connectivity, optional**: HP Jetdirect 175x Fast Ethernet Print Server (J6035G), HP Jetdirect en3700 Fast Ethernet Print Server (J7942G), HP Jetdirect 620n Fast Ethernet Print Server (J7934G), HP Jetdirect 625n Gigabit Ethernet Print Server (J7960G), HP Jetdirect 635n IPv6/IPsec Print Server (J7961G), HP Jetdirect ew2400 802.11g Wireless Print Server (J7951G).

(2) Function without degradation in capabilities after transit to and from the place of use;

The Robis ballot on demand hardware complies with this requirement.

- Storage temperature: 0 to 402 C. Storage humidity: 1Oto 80% H. Noise level per ISO 9296: Sound power: LwAd 6.84 B(A). Sound pressure: LpAm 54 dB(A).

(3) Function without degradation in capabilities after storage between elections

The Robis ballot on demand hardware complies with this requirement. Printing and paper storage environment should be at or near room temperature, and not too dry or too humid.

HP LaserJet 5200tn (Q7545A) printer

- Printer cartridge black: 12,000 pages ~6 months in accordance with ISO/IEC 19752
- Environmental Conditions
    - Temperature (printer and print cartridge):
        - Printing: 15°to 32.5°C (59° to 89°F)
        - Storage/standby: -20 ° to 40°C (-4° to 104°F)
    - Relative humidity:
        - Printing: 10% to 80%
        - Storage/standby: 10% to 90%
    - Storage: The paper storage environment should be properly maintained to ensure optimum printer performance. The required condition is 20° to 24°C (68°to 75°F), with a relative humidity of 45% to 55%.
    - Storage Temperature: 32 to 104 degrees F (0 to 40 degrees C).

(4) Function in the natural environment, including variations in temperature, humidity and atmospheric pressure

The Robis ballot on demand hardware complies with this requirement.

HP LaserJet 5200tn (Q7545A) printer

- Operating Temperature:
    - 50 to 90 degrees F (10 to 32 degrees C)
- Storage Temperature:
    - 32 to 104 degrees F (0 to 40 degrees C)
- Relative Humidity Conditions:
    - 20 to 80 %, non-condensing.

(5) Function in induced environment, including proper and improper operation and handling of the system and its components during the election process

The Robis ballot on demand hardware complies with this requirement.

HP LaserJet 5200tn (O7545A) printer

- Operating Temperature:

    - 50 to 90 degrees F (10 to 32 degrees C)
- Storage Temperature:
    - 32 to 104 degrees F (0 to 40 degrees C)
- Relative Humidity Conditions:
    - 20 to 80 %, non-condensing

(6) Contain prominent instructions as to any special requirements

The Robis ballot on demand hardware complies with this requirement.
LaserJet 5200tn (O7545A) printer provides step-by-step instructions, troubleshooting the printer, etc.

(7) Have no restrictions on space allowed for installation, except that the arrangement of the system shall not impede the performance of duties by election workers, the orderly flow of voters through the polling place or the ability of the voter to vote in private

This requirement will be determined by the allowed space for installation per location and the physical dimensions of the HP LaserJet 5200tn (O7545A) printer

Dimensions:

- Height 404 mm (15.9 in)
- Depth 535 mm (21 in)
- Width 490 mm (19.3 in)
- Weight 30.2 kg (66.5 lb)

(8) Operate with the electrical supply ordinarily found in polling places (Nominal 120 Vac/60Hz/1 phase).

The Robis ballot on demand hardware complies with this requirement.
HP LaserJet 5200tn (O7545A) printer

- Power Specifications: (AC110 - 127V, 50/60Hz (+/- 2 Hz).
- Rated short-term current: 10.0 Amps.

B. Provide software requirements that shall:

(1) Be capable of exporting voter data and voter activity status data to state and county voter registration systems

It was verified that the Robis ballot on demand system is capable of exporting voter data, as required, to state/county voter registration systems.

(2) Be capable of generating all required absentee and early voting signature rosters in a state-approved format;

Note that 4.2, was provided the additional clarification by the State:

The Robis ballot on demand system does contain a capability to generate voting signature rosters, though it does not make the differentiation of absentee or early voting. The current signature roster refers to early voting. Robis has indicated that with guidance from the State on absentee specifications, that a specific absentee signature roster can be implemented.

(3) Generate daily and to-date activity reports based on user-defined criteria

Robis provides the user four reports that can be run as the daily or to date reports. With the implementation of these reports Robis considers their system to meet the "user defined criteria" portion of the requirement. Within the reports themselves the user does not have a capability to define specific criteria other than to specify daily vs. to-date. Robis has indicated that it can add any additional criteria requested by the state; however, no other criteria were specified in the requirements.

(4) Must have both single transaction and batch transaction absentee production capability.

It was verified that the Robis ballot on demand system is capable of processing ballot requests in both single transaction and batch transaction modes.

C. Be capable of being operated by computer users familiar with a graphical user interface.

It was verified that a computer user with basic familiarity with graphical user interfaces are capable of operating the Robis ballot on demand system.

6.2 Automated Election Systems

Voting System(s) submitted for re-certification: AES AutoVote™ E-PollBook Ballot Management System Version 12.3

Voting System Testing Laboratory (VSTL): SLI Global Solutions

Original Test Date: December 2011

Specific requirements for voting systems outlined in Chapter 1, Article 6 of the Election Code:

1-6-5.7(D). Early voting

D. When voting at an early voting location, the voter shall provide the required voter identification to the election board, county clerk or the clerk's authorized representative. If the voter does not provide the required voter identification, the voter shall be allowed to vote on a provisional ballot.

If the voter provides the required voter identification, the voter shall be allowed to vote after subscribing an application to vote on a form approved by the secretary of state or its electronic equivalent approved by the voting system certification committee. The county clerk or the clerk's authorized representative shall make an appropriate designation on the signature roster or register next to the voter's name indicating that the voter has voted early.

The system provides for a voter to subscribe to an application to vote prior to issuance of a ballot for early voting. See Appendix 2 for a sample of the form.

Specific requirements for voting systems outlined in Chapter 1, Article 9 of the Election Code:

Further detail regarding each test case conducted by an independent testing laboratory can be found in the SLI Global Solutions testing report.

1-9-20. Systems designed to print ballots at polling locations: Ballot preparation requirements.

Systems designed to print ballots at polling locations shall provide the general capabilities for ballot preparation and shall be capable of:

A. Enabling the automatic formatting of ballots in accordance with the requirements of the Election Code, as amended from time to time, for offices, candidates and questions qualified to be placed on the ballot for each political subdivision and election district

Using Primary election style and General election style ballots as supplied by the State of New Mexico, it was verified that the AES ballot on demand system is capable of printing a ballot automatically formatted with the appropriate offices, candidates and questions qualified to be placed on the ballot for each political subdivision and election district, as well as with any pertinent overlays.

B. Supporting the maximum number of potentially active voting positions

Using a ballot style representative of a maximum active voting position layout, as supplied by the State of New Mexico, it was verified that the AES ballot on demand system is capable of printing a ballot supporting the maximum active voting positions.

C. Generating ballots for a primary election that segregate the choices in partisan contests by party affiliation

Using a Primary election style ballot, as supplied by the State of New Mexico, it was verified that the AES ballot on demand system is capable of printing ballots for a primary election that segregates the choices in party contests, by party affiliation.

D. Generating ballots that contain identifying codes or marks uniquely associated with each format

Printing of different ballot styles within a jurisdiction, for both primary and general elections, it was verified that the AES ballot on demand system is capable of generating ballots that contain identifying codes or marks that are uniquely associated with each format.

E. Ensuring that the voting response fields properly align with the specific candidate names or questions printed on the ballot

Printing single ballots and batches of ballots, of both primary and general elections, it was verified that the AES ballot on demand system generates voting response fields properly aligned with the specific candidate names and/or questions printed on the ballot.

F. Generating ballots that can be tabulated by all certified voting systems in the state

Using ballots supplied by the State of New Mexico, of both primary and general elections, it was verified that the AES ballot on demand system is able to produce ballots which are capable of being tabulated by the certified voting systems in the state.

G. Generating a ballot for an individual voter based on voter registration data provided by state or county

Using the voter registration data set provided by the State of New Mexico,
it was verified that the AES ballot on demand system is able to generate an individual voter's ballot, as needed.

H. Functionality in absentee, early and Election Day environments

Using primary and general election style ballots, as provided by the State of New Mexico, the functionality was verified that the AES ballot on demand system is functional in both absentee and early voting environments. Note that AES employs two applications one for Absentee voting and one for Early voting, within their Autovote system. Elections exercised included an absentee primary (in Autovote Absentee System), and an early voting general (in Autovote Voting Convenience Center).
This allowed the system to produce ballots, as well as detailed reporting for each election. Due to the manner in which the system was instantiated for an election, we were not able to configure either an absentee general or early voting primary election on the respective applications within the Autovote system.

I. Providing absentee ballot tracking ability

It was verified, that the AES ballot on demand system, provides adequate absentee ballot tracking capabilities.

J. Uniform allocation of space and fonts used for each office, candidate and question such that the

voter perceives no active voting position to be preferred to any other

Using ballots supplied by the State of New Mexico, it was verified that the
AES ballot on demand system is able to produce ballots, as created by voting systems certified by the State, with uniform allocation of space and fonts, such that no active voting position is perceived to be preferential to any other position.

K. rendering the ballot in any of the written languages required by the federal Voting Rights Act of 1965, as amended

Using ballots supplied by the State of New Mexico, it was verified that the AES ballot on demand system is able to render the ballot in any language, as prescribed by the State (English and Spanish).

L. Conformity with the optical scan vote tabulator vendor specifications for type of paper stock, weight, size and shape, size and location of voting positions used to record votes; folding; bleed through and ink for printing

Using ballots supplied by the State of New Mexico, it was verified that the AES ballot on demand system is able to utilize paper and ink type that conforms to voting systems, certified by the State, prescribed requirements, such that ballots are appropriately produced.

M. Interfacing with the statewide voter file for the exchange of data.

Using the voter registration data supplied by the State, the AES ballot on demand system was verified to be capable of interlacing with the statewide voter file, for the exchange of data.

1-9-21. Systems designed to print ballots at polling locations; Security requirements.

Systems designed to print ballots at polling locations shall provide the security capabilities for ballot preparation and shall be capable of:

A. providing a full audit trail of individual voter activity

It was verified that the AES ballot on demand system is capable of adequately providing full audit trails for individual voter activities.

B. providing full ballot production audit logs for all activity, including absentee voting by mail, in person absentee voting, early voting, provisional voting and spoiling ballots

It was verified that the AES ballot on demand system is capable of adequately providing full ballot production audit logs for required activities, as noted in the requirement.

C. creation and preservation of an audit trail of every ballot issued, including during a period of

interrupted communication in the event of a loss of network connectivity

It was verified that the AES ballot on demand system is capable of creation and preservation of an audit trail of every ballot issued from its system during periods of interrupted communications due to the loss of network connectivity.

D. suitable security passwords at user, administrator and management levels

The AES ballot on demand system provides suitable password security policies such that the system is secure to each role level implemented, though there are only two roles provided, user and administrator. No management type role is provided.

E. preventing the modification of ballot formatting by polling place users

It was verified that the AES ballot on demand system provides suitable security, by implementation of appropriate password policy enforcement and role enforcement, that no polling place user is able to modify a ballots format.

F. retaining full functionality and capability of printing ballots during a period of interrupted communication in the event of a loss of network connectivity

It was verified that the AES ballot on demand system does retain full functionality and capability of printing ballots during periods of interrupted communications, such as the event of a loss of network connectivity, by removing network connectivity to the system.

1-9-22. Systems designed to print ballots at polling locations; Hardware, software and usability requirements.

Systems designed to print ballots at polling locations shall:

A. Provide hardware requirements that:

(1) Shall be networkable and scalable for multi-user environments

The AES ballot on demand hardware complies with this requirement.
The HP LaserJet 5200tn (Q7545A) printer has four possible network printer configurations:

1. Connect directly to the network (direct mode or peer-to-peer printing).
2. Connect directly to the network and a shared print queue is configured on a network file/print server (client-server printing).
3. Connect directly to a PC that acts as a print server, allowing the printer to be shared to PC clients on the network.
4. PC clients connect to a device that has already been set up on the network or connect to a print queue that is shared from either another PC client or file/print server. Complies with this requirement.

HP LaserJet 520otn (Q7545A) printer

- **Connectivity, standard:** 1 IEEE-1284 parallel; 1 USB; 1Fast Ethernet 10/100; 1 EIO
- **Connectivity, optional:** HP Jetdirect 175x Fast Ethernet Print Server (J6035G), HP Jetdirect en3700 Fast Ethernet Print Server (J7942G), HP Jetdirect 620n Fast Ethernet

Print Server (J7934G), HP Jetdirect 625n Gigabit Ethernet Print Server (J7960G), HP Jetdirect 635n IPv6/IPsec Print Server (J7961G), HP Jetdirect ew2400 802.11g Wireless Print Server (J7951G)

(2) Function without degradation in capabilities after transit to and from the place of use

Transit specifications on the HP LaserJet 5200tn (O7545A) printer not provided or found.

(3) Function without degradation in capabilities after storage between elections

The AES ballot on demand hardware complies with this requirement. Printing and paper storage environment should be at or near room temperature, and not too dry or too humid.

HP LaserJet 5200tn (Q7545A) printer

- Printer cartridge black: 12,000 pages ~6 months in accordance with ISO/IEC 19752
    - Environmental Conditions
    - Temperature (printer and print cartridge):
        - Printing: 15°to 32.5°C (59° to 89°F)
        - Storage/standby: -20° to 40°C (-4° to 104°F)
    - Relative humidity:
        - Printing: 10% to 80%
        - Storage/standby: 10% to 90%
    - Storage: The paper storage environment should be properly maintained to ensure optimum printer performance. The required condition is 20°to 24°C (68°to 75°F), with a relative humidity of 45% to 55%.
    - Storage Temperature: 32 to 104 degrees F (0 to 40 degrees C)

(4) Function in the natural environment, including variations in temperature, humidity and atmospheric pressure

The AES ballot on demand hardware complies with this requirement.
HP LaserJet 5200tn (Q7545A) printer

- Operating Temperature:
    - 50 to 90 degrees F (10 to 32 degrees C)
- Storage Temperature:
    - 32 to 104 degrees F (0 to 40 degrees C)
- Relative Humidity Conditions:
    - 20 to 80 %, non-condensing

(5) Function in an induced environment, including proper and improper operation and handling of the system and its components during the election process

The AES ballot on demand hardware complies with this requirement
HP LaserJet 5200tn (Q7545A) printer

- Operating Temperature:
    - 50 to 90 degrees F (10 to 32 degrees C)
- Storage Temperature:
    - 32 to 104 degrees F (0 to 40 degrees C)

- Relative Humidity Conditions:
  - 20 to 80 %, non-condensing

(6) Contain prominent instructions as to any special requirements

The AES ballot on demand hardware complies with this requirement LaserJet 52001n (O7545A) printer provides step-by-step instructions, troubleshooting the printer, etc.

(7) Have no restrictions on space allowed for installation, except that the arrangement of the system shall not impede the performance of duties by election workers, the orderly flow of voters through polling place or the ability of voters to vote in private

This requirement will be determined by the allowed space for installation per location and the physical dimensions of the HP LaserJet 5200tn (Q7545A) printer

- Dimensions:
  - Height 404 mm (15.9 in)
  - Depth 535 mm (21 in)
  - Width 490 mm (19.3 in)
  - Weight 30.2 kg (66.5 lb).

(8) Operate with the electrical supply ordinarily found in polling place, nominal one hundred twenty volts alternating current, sixty hertz, single phase

The AES ballot on demand hardware complies with this requirement.
HP LaserJet 5200tn (Q7545A) printer
- Power Specifications: (AC110-127V, 50/60Hz (+/- 2 Hz).
- Rated short-term current: 10.0 Amps

B. provide software requirements that shall:

(1) Be capable of exporting voter data and voter activity status data to state and county voter registration systems

It was verified that the AES ballot on demand system is capable of exporting voter data, as required, to state/county voter registration systems.

(2) Be capable of generating all required absentee and early voting signature rosters in a state-approved format

The AES ballot on demand system does create absentee and early voting signature rosters, though the rosters do not contain NMSA 1-12-7.3 "B, page numbers". The Absentee System application does contain the voter's gender, as per NMSA 1-12-7.3. "A(2) gender". The Voting Convenience Center does not contain NMSA 1-12-7.3. "A(2) gender".

(3) Generate daily and to-date activity reports based on user-defined criteria

It was verified that the AES ballot on demand system implements adequate capability for generating both daily and to-date type reports, based on user defined criteria.

(4) Have both single transaction and batch transaction absentee production capability

It was verified that the AES ballot on demand system is capable of processing ballot requests in both single transaction and batch transaction modes.

C. Be capable of being operated by computer users familiar with a graphical user interface

It was verified that a computer user with basic familiarity with graphical user interfaces can operate the AES ballot on demand system.

7.0 Conclusion

The contents of this report of findings are being posted along with the test reports and non-proprietary application materials submitted by the voting system vendors to the SOS website for a 21-day public comment period beginning on the date of this report. All public comments should be submitted to leeann.lopez3@state.nm.us. The public comment will be reviewed by the SOS and provided to the VSCC for their consideration during their meeting conducted to recommend certification.

Any previously certified system that does not comply with the requirements of the Election Code and is not recertified by the Secretary of State shall be deemed decertified for use in the state.

Appendix 1
Robis Elections – Sample Application to Vote for Early Voting

OFFICE OF THE COUNTY CLERK
LINDA STOVER
PO BOX 542
ALBUQUERQUE NM 87103-0542

[__] SPOILED BALLOT

[__] VOTER ASSISTED

APPLICATION FOR ABSENT/EARLY VOTER BALLOT
SOLICITUD PARA LA BALOTA DE VOTANTE AUSENTE/TEMPRANO

Precinct

BALLOT: BERN_PCT227
Party:

APPLICATION FOR ABSENT/EARLY VOTER BALLOT
SOLICITUD PARA LA BALOTA DE VOTANTE AUSENTE/TEMPRANO

[ ] Absentee / Ausente
[X] Early / Temprano

BERNALILLO COUNTY
COUNTY / CONDADO
STATE OF NEW MEXICO / ESTADO DE NUEVO MEXICO

2509550

I am a registered voter of New Mexico and hereby make application for an absentee ballot for the offices and/or questions on which I may vote under the Absentee Voter Act. If you move to another address you must notify the County Clerk.

Soy un votante registrado de Nuevo México y hago una solicitud para balota de votante ausente para los puestos y preguntas por las cuales yo puedo votar conforme a la ley de Votante Ausente. Si Ud. se muda a otra residencia, favor de avisarle al Escribano o a la Escribana del Condado.

Print or type voter's name as registered / *Nombre del votante segun registrado-escrito a maquina o imprimido*

[redacted]

Mail ballot to address below / Envie balota a esta direccion

Street Address as registered / Direccion segun registrado

[redacted]

City - State - Zip / *Ciudad - Estado - Zona Postal*

[redacted]

Year of Birth / *Año del nacimiento*

[redacted]

SIGNATURE of registered voter / FIRMA del votante registrado

DATE/FECHA

7/7/2021

ALPHA

EVCC 01 - 98th and Central Shopping Center

Time: 7/7/2021 12:26:22 PM

Appendix 2
Automated Election Services – Sample Application to Vote for Early Voting

APPLICATION FOR ABSENT/EARLY VOTER BALLOT
SOLICITUD PARA LA BALOTA DE VOTANTE AUSENTE/TEMPRANO

NMAV-1 (Rev.1/2010)

Mailing Address: [redacted]

APPLICATION FOR ABSENT/EARLY VOTER BALLOT
SOLICITUD PARA LA BALOTA DE VOTANTE AUSENTE/TEMPRANO

Santa Fe
Jurisdiction / Jurisdicción

894416 - SANT_PCT032
County: Santa Fe

STATE OF NEW MEXICO / ESTADO DE NUEVO MEXICO

2020 GENERAL - 11/3/2020

I am a registered voter of New Mexico and hereby make application for an absentee ballot for the offices and/or questions on which I may vote under Absentee Voter Law.
If you move to another address you must notify the County Clerk.

Soy un votante registrado de Nuevo Mexico y hago una solicitud para balota de volante ausente para los puestos y preguntas por las cuales yo puedo votar conforme a la ley de Votante Ausente.
Si Ud. se muda a otra residencia, favor de avisarle al Escribano o a la Escribana de Condado.

Print or type voter's name as registered / *Nombre del votante segun registrado-escrito a maquina a imprimido*		**Street Address as registered** / *Direccion segun registrado*
[redacted]		[redacted]
Signature of registered Voter / *Firma del votante registrado*	**Date** / *Fecha*	**City - State - Zip** / *Ciudad - Estado - Zona Postal*
X [redacted]	*8/13/2019*	[redacted]

AutoVote Site 49 - AMY BIEHL COMMUNITY SCHOOL - Computer -1

Early Voter - 8/13/2019 8:32:34 AM