

Minutes
State Election Commission Meeting
January 10, 2022

The State Election Commission meeting was called to order by Chairman Judy Blackburn at 12:05 p.m., Central Daylight Time, January 10, 2022.

The following members and staff were present: Commissioners Blackburn, Duckett, Eldridge, McDonald, Wheeler and Younce; Coordinator of Elections Mark Goins, and Kathy Summers, Elections Specialist.

Commissioner Eldridge made a motion to adopt the below listed minutes, seconded by Commissioner McDonald.

- October 11, 2021 – Regular Meeting

(Aye votes: Blackburn, Duckett, Eldridge, McDonald, Wheeler and Younce; No votes: None; Abstention: None.)

Commissioner Younce made a motion pursuant to TCA. § § 2-12-101 and 2-12-106 to approve any nomination(s) for county election commission appointments submitted, and to leave the nomination process open until 4:30 p.m. Central Daylight Time, Monday, January 10, 2022, seconded by Commissioner Duckett. (Aye votes: Blackburn, Duckett, Eldridge, McDonald, Wheeler and Younce; No votes: None; Abstention: None.) **(See attached county election commission appointments made.)**

Old Business

- **Hart InterCivic – Michael Choate, Certification Project Manager – Certification request of Hart InterCivic Verity Voting 2.5 as presented on July 12, 2021.**

Mr. Choate requested approval of Verity Voting 2.5, as viewed by the State Election Commission at their July 12, 2021, meeting. Mr. Choate provided questionnaires from users of the system to the commission for review. **(See attached questionnaires.)**

Commissioner Eldridge made a motion to approve the upgrade for Hart InterCivic Verity Voting 2.5 voting system, seconded by Commissioner McDonald. (Aye votes: Blackburn, Duckett, Eldridge, McDonald, Wheeler and Younce; No votes: None; Abstention: None.)

New Business

- None Given

Coordinator Update

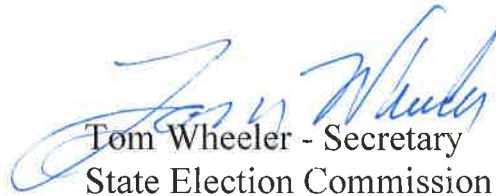
- Coordinator Goins discussed redistricting and petition pickup timelines for upcoming elections in 2022.
- Coordinator Goins advised there are twelve (12) new Administrators of Elections since 2020.
- Coordinator Goins stated the August 2022 ballot will be a long ballot and will contain judicial retention questions.
- Coordinator Goins advised a post-election audit is being discussed by the General Assembly, as well as voting equipment and the way voters vote in Tennessee. Tennessee's watermark bill should stay intact, but discussions may enhance the watermark feature.
- Coordinator discussed federal legislation and the possibility of same date registration. Tennessee's Constitution does not allow for same day registration.

Commissioner Duckett requested an update on the Sexual and Workplace Harassment training for county election commissioners and Administrators of Elections. Kathy Summers, Elections Specialist advised approximately sixty-eight (68) counties have completed the training and follow-up with counties would be done to determine when receipt of the training is expected.

The meeting was adjourned at 12:33 p.m. Central Time.

The next scheduled meeting is set for April 11, 2022, and will be held in the William R. Snodgrass – Tennessee Tower, Nashville Room - 3rd floor at 12:00 Noon, Central Standard Time.

Respectfully submitted,



Tom Wheeler - Secretary
State Election Commission

State of Tennessee



State Election Commission
312 Rosa L. Parks Avenue, 7th Floor
Nashville, Tennessee 37243-1102

Vacant Status

January 10, 2022

Dekalb R Kent Younce / D Mike McDonald

R

Hawkins R Judy Blackburn / D Tom Wheeler

R

Hickman R Donna Barrett / D Greg Duckett

D

Houston R Donna Barrett / D Greg Duckett

D

Lewis R Donna Barrett / D Greg Duckett

R

Loudon R Judy Blackburn / D Tom Wheeler

D

Morgan R Kent Younce / D Tom Wheeler

D

Perry R Donna Barrett / D Greg Duckett

D

Polk R Judy Blackburn / D Tom Wheeler

D

Rhea R Kent Younce / D Tom Wheeler

D

Total Vacancies: 10

State of Tennessee



State Election Commission
312 Rosa L. Parks Avenue, 7th Floor
Nashville, Tennessee 37243-1102

New Appointment Status

January 11, 2022

		Appointment
Dekalb	R Kent Younce / D Mike McDonald	
	R Michael Brandon Gay	1/10/2022
Hawkins	R Judy Blackburn / D Tom Wheeler	
	R Ginger Shackelford	1/10/2022
Houston	R Donna Barrett / D Greg Duckett	
	D Florida Robinson	1/10/2022
Lewis	R Donna Barrett / D Greg Duckett	
	R Caleb Thomas	1/10/2022
Loudon	R Judy Blackburn / D Tom Wheeler	
	D Andrew Bennett	1/10/2022
Morgan	R Kent Younce / D Tom Wheeler	
	D Sarah Mae Seavers	1/10/2022
Polk	R Judy Blackburn / D Tom Wheeler	
	D Cecil Harden	1/10/2022
Rhea	R Kent Younce / D Tom Wheeler	
	D Dean Sparks	1/10/2022
Total New Commissioners: 8		

PROCEDURES FOR CERTIFYING VOTING MACHINES BY THE TENNESSEE STATE ELECTION COMMISSION

All voting machines/vendors must receive certification from the state election commission and the coordinator of elections before any voting machines or systems may be sold in the State of Tennessee.

First Step:

Any interested vendor should submit a written request to the coordinator of elections and the state election commission requesting certification of your company together with the EAC certification number, a financial report and a list of all states that have already bought your voting machines or systems. If you would like to demonstrate your product at a meeting of the state election commission, please make that request in your letter. You will be notified of the date, time, and place of the meeting where you may make your presentation.

Second Step:

A. Voting Machine Procedure

Following verification of EAC certification and an initial presentation of your product and/or services, you would need to arrange for at least two (2) State Election Commissioners (of opposite parties) and the coordinator of elections (or designee) to view your machines or system in use in an election of a substantial size in another state. An election of a substantial size involves at the minimum the following characteristics:

- The jurisdiction has a population of at least 10,000 persons;
- The jurisdiction has at least two (2) or more district races on the ballots; and
- There are at least two (2) contested races involving both at large and district races on the ballot.

B. Voting Machine Software or Hardware Upgrade

- EAC Certification;
- Presentation of upgrade before State Election Commission at a meeting; and
- Viewing of upgrade in another state (In lieu of viewing machine in another state, at the discretion of the State Election Commission, letters of recommendation from users in other jurisdiction may be used as support for approval.)

C. De Minimis Voting System Changes

- Any De Minimis change to an EAC certified voting system shall be submitted to the state election commission and coordinator of elections to be approved. For purposes of approval of the de minimis change to the voting system, all that will be required is a letter from the EAC stating the change is de minimis, unless further information is requested by the state election commission or coordinator of elections.

Third Step:

The State Election Commission must vote to certify the machine in order for the machines to be used in an election in Tennessee.

You may send any correspondence for both the state election commission and the coordinator of elections to the following address:

312 Rosa L.Parks Avenue, 7th Floor
William R. Snodgrass Tower
Nashville, Tennessee 37243
(615) 741-7956

If you have any further questions regarding certification of your company, please feel free to contact the office of the state election coordinator at the phone number listed above.

COPY

Tennessee Secretary of State
Tre Hargett



Elections Division
312 Rosa L. Parks Avenue, 7th Floor
Nashville, Tennessee 37243-1102

Mark Goins
Coordinator of Elections

615-741-7956
Mark.Goins@tn.gov

January 18, 2022

Michael Choate
Certification Program Manager, Hart InterCivic
15500 Wells Port Drive
Austin, TX 78728

Dear Mr. Choate,

This letter is to inform you of certification of Hart Verity 2.5, an upgrade to the Hart Verity 2.4 voting machine, bearing the EAC Certification Number: HRT-Verity-2.5, by the State Election Commission (SEC) on January 10, 2022. Your voting machine was presented to the SEC on July 12, 2021, for demonstration, and the SEC has received and reviewed the questionnaires completed by counties currently using Verity 2.5 voting system.

Thank you for your cooperation in the certification process.

Sincerely,

A handwritten signature in blue ink that reads "Mark Goins".

Mark Goins
Coordinator of Elections

Enclosure: EAC Certification Number HRT-Verity-2.5



United States Election Assistance Commission

Certificate of Conformance

Hart Verity Voting 2.5



The voting system identified on this certificate has been evaluated at an accredited voting system testing laboratory for conformance to the *Voluntary Voting System Guidelines Version 1.0 (VMSG 1.0)*. Components evaluated for this certification are detailed in the attached Scope of Certification document. This certificate applies only to the specific version and release of the product in its evaluated configuration. The evaluation has been verified by the EAC in accordance with the provisions of the *EAC Voting System Testing and Certification Program Manual* and the conclusions of the testing laboratory in the test report are consistent with the evidence adduced. This certificate is not an endorsement of the product by any agency of the U.S. Government and no warranty of the product is either expressed or implied.

Product Name: Verity Voting

Model or Version: 2.5

Name of VSTL: SLI Compliance

EAC Certification Number: HRT-VERITY-2.5

Date Issued: September 9, 2020

Mona Harrington

Executive Director

Scope of Certification Attached

Hart InterCivic
Voting System
Verity 2.5
January 10, 2022

- Michael Choate, Certification Program Manager
- Certification Request - Hart Verity Voting System 2.5 as demonstrated before the State Election Commission on July 12, 2021.
- Voting System Reference Questionnaires
 - Clark County, Washington
 - Kitsap County, Washington
 - Skagit County, Washington
 - Yakima County, Washington



United States Election Assistance Commission



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EAC Certification Number: HRT-VERITY-2.5
Date Issued: September 9, 2020

Mona Harrington
Executive Director

Scope of Certification Attached



Voting System Reference Questions

Reference Name and Contact Information:

Cathie Garber, Elections Supervisor
Cathie.garber@clark.wa.gov – 564-397-5179

Jurisdiction Name:

Clark County Elections

Quantity, type and version of voting equipment and software installed:

1 Data/Build workstation; 1 Count workstation; 2 Central Servers; 4 Central Clients; 4 Touchwriters; all equipment and software is running Verity 2.5.1

How many voters are in your jurisdiction?

325,301

When did your jurisdiction purchase the system?

Hart Verity was purchased in December 2018. We upgraded from Hart HVS that we acquired in 2005 and used through 2018.

How many elections have you used the system?

Verity system has been used for 11 elections

Have any upgrades been made to the system since you purchased it? Why?

2 – We upgraded to the newest version to get performance enhancements and operating system to Windows 10 from Windows 7

Are you still using the same system?

Yes

Describe your overall impression of the system based on experiences in your jurisdiction.

Hart has met or exceeded our expectations

Are you satisfied with the training provided to your staff?

Yes – Hart is available for onsite training as needed, and they send very knowledgeable representatives.

Are you satisfied with the training provided for poll officials?

Washington is Vote by Mail – this question not applicable.

Are you satisfied with the support the vendor has provided for early voting (if applicable), Election Day, and post-election activities?

Yes, support is probably their greatest feature.

Are you satisfied with the cost of support? Do you feel the cost of support is competitive or too expensive?

It is included in our annual maintenance. When we did our RFP, they were very competitive.

Describe any issues the vendor has had meeting your jurisdiction's requirements, if any.

The table formatting on the Touchwriters doesn't work as we would like it to. The barcode on the paper ballot is too large and can create fold line issues if not careful.

Describe any issues your jurisdiction has had regarding equipment availability, if any.

None

Describe any issues your jurisdiction has had regarding the accuracy of election results, if any.

None. We perform a pre-election logic and accuracy test and a random audit after the election with all results matching 100%.

Describe any other issues your jurisdiction has had with the system, if any.

None.

Has the vendor been responsive in addressing issues?

N/A

Describe any feedback (positive or negative) received from poll officials about the system.

N/A

Describe any feedback (positive or negative) received from voters about the system.

Voters in general do not access this system, with the exception of the Touchwriters. Voters find the paper ballot easy to understand and navigate. Touchwriter users are very happy with the product.

Do you feel like you have gotten your money's worth for the system?

Yes

Would you recommend this system for use in other jurisdictions?

Absolutely! You would be gaining a valuable, reputable, professional partner with the best support staff you could ask for.



Voting System Reference Questions

Reference Name and Contact Information:

Tina Agnew – Technology Analyst
email: tagnew@co.kitsap.wa.us

Jurisdiction Name:

Kitsap County Elections, Washington State

Quantity, type and version of voting equipment and software installed:

Kitsap County utilizes the following software: Verity Touch Writer 2.5.1; Verity Data 2.5.0, Verity Build 2.5.0, Verity Central 2.5.1, Verity Count 2.5.0. We have one computer with Data, Build and Count, 3 Client stations, and one Central Count station.

Kitsap uses the following hardware: Okidata b432dn Ballot Printer, Okidata C831 Ballot Printer, Canon DR-G1100 Scanner, Verity Touch Writer, Verity Key, Verity vDrive

How many voters are in your jurisdiction?

Kitsap County currently has 189,629 active registered voters. We had 142,780 registered voters in our August 3, 2021 Primary.

When did your jurisdiction purchase the system?

We first purchased the HART HVS system in 2013.

How many elections have you used the system?

Since 2013, we averaged 3-4 elections a year using the HART systems. In 2019 we upgraded to Verity 2.0. In 2021 we upgraded to Verity 2.5 and have performed one election (August 2021 Primary) using this version of Verity.

Have any upgrades been made to the system since you purchased it? Why?

We are on our 3rd HART upgrade. Our main reasons for upgrading were for better usability and added features of the system and improved technology.

Are you still using the same system?

Yes

Describe your overall impression of the system based on experiences in your jurisdiction.

Each HART Upgrade has been better than the last. We are very happy with the current system.

Are you satisfied with the training provided to your staff?

Yes

Are you satisfied with the training provided for poll officials?

N/A. We do not have polling places in Washington.

Are you satisfied with the support the vendor has provided for early voting (if applicable), Election Day, and post-election activities?

Yes. Washington state is all vote-by-mail and we begin scanning ballots as soon as they are received.

Are you satisfied with the cost of support? Do you feel the cost of support is competitive or too expensive?

We feel the cost is competitive with other vendors.

Describe any issues the vendor has had meeting your jurisdiction's requirements, if any.

We have not had any issues.

Describe any issues your jurisdiction has had regarding equipment availability, if any.

We have not had any issues.

Describe any issues your jurisdiction has had regarding the accuracy of election results, if any.

We have not had any issues.

Describe any other issues your jurisdiction has had with the system, if any.

We haven't had any issues.

Has the vendor been responsive in addressing issues?

Yes, the vendor has been very good at responding to any issues that may arise.

Describe any feedback (positive or negative) received from poll officials about the system.

N/A. We do not have polling places in Washington.

Describe any feedback (positive or negative) received from voters about the system.

All positive feedback.

Do you feel like you have gotten your money's worth for the system?

Yes. The system is user friendly and easy to learn.

Would you recommend this system for use in other jurisdictions?

Yes. We are happy with our system and the ability to use off the shelf equipment for scanning and printing. Kitsap uses the Touch Writer as a ballot marker, which produces a scannable ballot.



Voting System Reference Questions

Reference Name and Contact Information:

Gabrielle Clay – Elections Supervisor
email: gabriellec@co.skagit.wa.us

Jurisdiction Name:

Skagit County Elections, Washington State

Quantity, type and version of voting equipment and software installed:

We have HART Verity, version 2.5. We have 1 Data/Build, 1 Count, 1 Central Servers, & 2 Central Clients

How many voters are in your jurisdiction?

We currently have 86, 060 active registered voters. We had 58,032 active registered voters for our August 3, 2021 Primary Election.

When did your jurisdiction purchase the system?

We just upgraded to Verity version 2.5 in May of 2021, but we first purchased HART in 2005

How many elections have you used the system?

We've ran 1 election on the current version of Verity.

Have any upgrades been made to the system since you purchased it? Why?

We originally purchased HVS in 2005, and upgraded to Verity in 2013. There have been multiple upgrades to the software since then and we've upgraded every time. The main reason for upgrades is for better usability in the system.

Are you still using the same system?

We are still using Verity version 2.5.

Describe your overall impression of the system based on experiences in your jurisdiction.

We have been very happy with HART and we appreciate that Verity can be upgraded and improved with user feedback.

Are you satisfied with the training provided to your staff?

Yes. HART has always done a great job with training and customer service.

Are you satisfied with the training provided for poll officials?

N/A. We do not have polling places in Washington.

Are you satisfied with the support the vendor has provided for early voting (if applicable), Election Day, and post-election activities?

Yes. Because Washington is an all vote-by-mail state we are able to start scanning ballots in preparation for election night as soon as we get them.

Are you satisfied with the cost of support? Do you feel the cost of support is competitive or too expensive?

N/A – I haven't had the chance to compare support costs with other companies at this time.

Describe any issues the vendor has had meeting your jurisdiction's requirements, if any.

We have not had any issues.

Describe any issues your jurisdiction has had regarding equipment availability, if any.

Due to being vote-by-mail, we do not have a need for large amounts of equipment, so we have not had any issues with equipment availability.

Describe any issues your jurisdiction has had regarding the accuracy of election results, if any.

We have not had any issues regarding the accuracy of our elections. Our state requires a Logic & Accuracy test before the election and a random batch audit post-election day. We have not had any issues with our tests.

Describe any other issues your jurisdiction has had with the system, if any.

We haven't had any issues.

Has the vendor been responsive in addressing issues?

HART customer service has always been responsive and helpful whenever we've had questions.

Describe any feedback (positive or negative) received from poll officials about the system.

N/A. We do not have polling places in Washington.

Describe any feedback (positive or negative) received from voters about the system.

Voters in Washington State are not allowed to touch our tabulation system. We do have a couple of people that come in each election to use our Touch Writer and they've been happy with it.

Do you feel like you have gotten your money's worth for the system?

Yes. The system is user friendly and easy to learn.

Would you recommend this system for use in other jurisdictions?

Yes. We are happy with our system and the ability to improve via user feedback. HART has been a great company to work with.



Voting System Reference Questions

Reference Name and Contact Information: Kathy Fisher; 509-574-1343;
Kathy.fisher@co.yakima.wa.us

Jurisdiction Name: Yakima County Elections; Yakima, WA

Quantity, type and version of voting equipment and software installed: Hart InterCivic Verity 2.5; 1 server that also serves as a scanning station, 3 scanning station clients, 1 Count station, 1 Build station, 4 TouchWriters.

How many voters are in your jurisdiction? 128,395 active registered voters

When did your jurisdiction purchase the system? 2021

How many elections have you used the system? 1, very quickly going on 2.

Have any upgrades been made to the system since you purchased it? Why? No

Are you still using the same system? Yes

Describe your overall impression of the system based on experiences in your jurisdiction. We have been an HVS customer of Hart InterCivic since 2004. This upgrade for us to Verity 2.5 has been an amazing experience. It is so user friendly and easy to learn. One of our staff, who has never put together a ballot before and only has a basic understanding of how voting precinct assignments and districts work together, was able to very quickly learn how to set up a ballot, scan, and adjudicate. The adjudication process in Verity 2.5 has proven to be a huge time saver. The first time our staff sat down to adjudicate 14,000 scanned ballots, when we were done, we looked at each other and said "that's it"?

Are you satisfied with the training provided to your staff? Most definitely.

Are you satisfied with the training provided for poll officials? We do not have polling stations and poll officials in Washington State, but the training we were provided as election officials who use the equipment were most definitely satisfied with the training on the TouchWriters.

Are you satisfied with the support the vendor has provided for early voting (if applicable), Election Day, and post-election activities? Most definitely.

Are you satisfied with the cost of support? Do you feel the cost of support is competitive or too expensive? We are most definitely satisfied.

Describe any issues the vendor has had meeting your jurisdiction's requirements, if any. None

Describe any issues your jurisdiction has had regarding equipment availability, if any. None

Describe any issues your jurisdiction has had regarding the accuracy of election results, if any. None. Our pre-election logic and accuracy tests and our post election audit was perfect.

Describe any other issues your jurisdiction has had with the system, if any. None.

Has the vendor been responsive in addressing issues? Most definitely.

Describe any feedback (positive or negative) received from poll officials about the system. Washington State does not have polling stations or poll officials.

Describe any feedback (positive or negative) received from voters about the system. None.

Do you feel like you have gotten your money's worth for the system? Most definitely.

Would you recommend this system for use in other jurisdictions? Most definitely.

Verity AutoBallot is an optional barcode scanner kit for **Verity Controller**, **Verity Print**, and **Verity Touch Writer** that allows air-gapped integration between an e-pollbook check-in process and the task of selecting the ballot style for the voting system.

Certified System before Modification (If applicable):

Verity Voting 2.4

Anomalies and/or Additions addressed in Verity Voting 2. 5:

- See Certification Test Report, pages 24-27 for detailed changes.

Mark definition:

System supports marks that cover a minimum of 4% of the rectangular marking area.

Tested Marking Devices:

System supports Black and Blue ballpoint pens; testing was performed with black, blue, dark blue, pink, light green, green, orange, and red pens, as well as #2 pencil lead.

Language capability:

System supports English, Spanish, Chinese, Japanese, Korean, Khmer, Thai, Vietnamese, Tagalog, Ilocano, Haitian Creole, and Hindi.

Components Included:

This section provides information describing the components and revision level of the primary components included in this Certification.



3.2 Engineering Changes

Verity Voting 2.5 is a modification of the EAC certified **Verity Voting 2.4** system.

The modifications to **Verity Voting 2.5** address multiple aspects of the system, including features for all devices and workstations, state specific features, updates to the operating system (OS), security enhancements, inclusion of the Touch Writer Duo Standalone, as well as associated documentation updates.

The following modifications are implemented in this release:

Features for all devices and workstations

- Windows Embedded Standard 7 OS is being replaced with Windows 10 Enterprise 2019 LTSC.
- Support has been added for the Haitian Creole language.
- The vDrive file and the folder names and paths have been added to the signed and validated content.

Wisconsin-specific features

- Support has been added for the Open Primary logic for the state of Wisconsin. This logic is a combination of Hart's current open primary logic with the addition of a party selector contest.

Additional Features for Verity Devices

All Verity Devices

- A user may now create a recovery vDrive and export temporary logs to a USB stick during a system alert. These are logs for when a vDrive for the currently loaded election is not present.
- Backup data may now be deleted.
- SQL Server 2012 is replaced with SQLite 3.29.

Features for devices with the thermal report printers

- Device Tests menu function to send a test page to the thermal roll printer has been renamed "Test report printer."

Features for devices that allow poll workers to activate a ballot

- If only one precinct-split will appear on the Select Precinct screen, the system shall automatically select it and not present the Select Precinct screen.
- If only one party will appear on the Select Party screen, the system shall automatically select it and not present the Select Party screen.

Features for devices with ballot entry and review

- An option has been added to require voters to view all contests on the ballot before finishing their voting session. This option is set in Verity Build.



5.2 Technical Data Package Review Summary

As this is a modification project, SLI reviewed the **Verity Voting 2.5** TDP against the final TDP for **Verity Voting 2.4**. The differences between the two TDPs were reviewed for compliance with the EAC VVSG 1.0 according to *Volume 2 Section 2*. The documents that are a part of the **Verity Voting 2.5** system are detailed in section 2.4 of this document.

5.2.1 Evaluation of TDP

Eight documentation discrepancies were written during the PCA documentation review phase. The issues identified were related to either incorrect or missing information. Details of the discrepancies can be found in Attachment F of this document.

In all instances, the discrepancies were addressed and resolved with updated documentation prior to the writing of this report. Once all identified discrepancies were resolved, the Technical Data Package for the **Verity Voting 2.5** voting system was found to comply with all applicable standards.

5.3 Functional Testing Summary

5.3.1 Test Suites Utilized

SLI performed tests designed to functionally verify the modifications listed in section 3.2 of this report. The testing incorporated end-to-end election scenarios testing the functionality supported by **Hart**. The following sections detail the test suites that were executed.

5.3.1.1 Accuracy

An Accuracy test suite was performed to verify the system's ability to record, store, consolidate, and report selections made by the voter, without error. This test suite utilized the **Verity Central** and **Verity Scan** devices. Pre-marked ballots in all supported ballot sizes were processed through the devices. Results were processed through **Verity Count** and examined for completeness and correctness.

5.3.1.2 Closed Primary Election

A Closed Primary test suite was performed in order to verify proper integration of the full **Verity Voting 2.5** system, and that all components continue to work as expected.

5.3.1.3 Error Message and Recovery

An Error Message and Recovery test suite was performed on the new **Verity Touch Writer Duo Standalone** device.

5.3.1.4 General Election 1

A General Election test suite was performed in order to verify proper integration of the full **Verity Voting 2.5** system, and that all components continue to work as



scans were conducted of all devices that were connected via public or proprietary networking. The communications between **Verity Controller** and daisy chained devices were also examined to confirm that communications were encrypted and that "Man in the Middle" attacks were resisted, and unsuccessful.

5.3.1.9 Verity Central

The **Verity Central** application was retested in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within the application.

5.3.1.10 Verity Count

The **Verity Count** application was re-tested in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within the application.

5.3.1.11 Verity Data/Build

The **Verity Data/Build** application was re-tested in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within the application.

5.3.1.12 Verity Relay

The **Verity Relay** application was re-tested in order to verify that the modifications implemented, and the subsequent Trusted Build of the software, did not adversely affect operations within the application.

5.3.1.13 Verity Touch Writer Duo Standalone

All features and functionality of the new **Verity Touch Writer Duo Standalone** device were tested in-depth to verify they work as documented, and that all functionality is appropriately documented.

5.3.1.14 2-Hour Backup Battery

A 2-Hour Backup Battery test suite was performed on the new **Verity Touch Writer Duo Standalone** device.

5.3.2 Evaluation of Functional Testing

In this test campaign, the **Verity Voting 2.5** voting system was subjected to examination for changes, updates, and modifications made from the previously certified system, **Verity Voting 2.4**, against applicable requirements within the EAC VVSG 1.0.

Through the duration of testing, two functional discrepancies were written. Details of these discrepancies can be found in Attachment F. These discrepancies were reported and appropriately resolved. Once the discrepancies were addressed, no violation of conformance to EAC VVSG 1.0 requirements was observed. All



components of the **Verity Voting 2.5** voting system have successfully passed all tests.

5.4 Hardware Test Summary

SLI and their certified third-party hardware test laboratory, National Technical Systems (NTS), performed an analysis and review of the modified **Verity Voting 2.5** system hardware components. During execution of testing performed at NTS, an SLI representative was present to oversee the testing.

The test methodologies for all tests are identified in the hardware test plan and hardware test reports, listed in section 1.2 of this document.

The hardware testing for this test campaign consisted of the following electromagnetic emissions and immunity tests for the **Verity Touch Writer Duo Standalone**:

- Radiated Emissions – FCC, Part 15 Class B ANSI C63.4.
- Conducted Emissions – FCC, Part 15 Class B ANSI C63.4.
- ESD – IEC 61000-4-2 (2008) Ed. 2.0.
- Electromagnetic Susceptibility – IEC 61000-4-3 (1996).
- Electrical Fast Transient – IEC 61000-4-4 (2004-07) Ed. 2.0.
- Lightning Surge – IEC 61000-4-5 (1995-02).
- Conducted RF Immunity – IEC 61000-4-6 (1996-04).
- Magnetic Fields Immunity – IEC 61000-4-8 (1993-06).
- Electrical Power Disturbance – IEC 61000-4-11 (1996-06).

5.4.1 Evaluation of Hardware Testing

As this test campaign was a modification of an EAC certified voting system, only modified hardware components of the **Verity Voting 2.5** voting system were evaluated against applicable hardware requirements.

One discrepancy was written during this test campaign for an issue encountered during hardware testing. Details can be found in Attachment F of this document. **Hart** sufficiently addressed the issue and subsequently passed all hardware tests.

6 Recommendation

SLI has successfully completed the testing of the **Hart Verity Voting 2.5** voting system. It has been determined that the system meets the required acceptance criteria of the Election Assistance Commission's Voluntary Voting System Guidelines 1.0.

This recommendation reflects the opinion of SLI Compliance based on testing scope and results. It is SLI's recommendation based on this testing effort that the EAC grant certification of the **Hart Verity Voting 2.5** voting system.