



From the Vendor Trace document or declaration, identify all documents that incorporate the System Test & Verification Specification. Each submitted (Vol. 1, Sect. 1.1) Technical Data Package document (Vol.2 Sect. 6.6) is reviewed (Vol. 1, Sect. 1.6.2.2).

Note about revisions: The first time a review form is completed, the form revision number is 01. As the review process continues, newer versions of vendor documents, or additional documents, will be submitted to close discrepancies. Each time new versions of documents are examined, the review form is saved with a new revision number. Save the form with the new revision (Save As) before you update the document names, versions and/or file names. Enter your name and date on the new revision.

Applicable TDP Documents table: List each applicable TDP document. Put the Title from inside the document in the first column, along with the version and date. Under "File name," copy the full document file name.

Trace Table: Verify whether the vendor correctly documented each applicable VVSG requirement listed in this template. Use the following notations to indicate results:

- **Traced** column: For each positive finding, enter the document number(s) corresponding to the **Applicable TDP Documents** Table below, with the section number(s) in each applicable document where the requirement is fulfilled. (Example: Doc. 2, Sec. 1.2)
- **Comments** column:
 - "Y" indicates that the document(s) fulfill the requirement.
 - "N" indicates that the document(s) do not fulfill the requirement.
 - "P" indicates that the document(s) partially fulfill the requirement
 - "NT" (not tested) indicates documents that are part of the system configuration but outside the scope of this certification review effort (only if not a full cert).
 - "NS" (not supported) indicates requirements that apply to features that are not supported in the configuration being tested (such as paper ballots).
 - Explain "P", "N", "NT" or "NS" findings here.
 - In addition, use the Comments column to enter any comments that would be helpful throughout the project.
 - **Discrepancies:**
 - List discrepancies in red.
 - A Documentation discrepancy is written when a VVSG requirement is not fulfilled or is partially fulfilled in the TDP.
 - An Informational discrepancy is written when the issue is outside the scope of the certification; Informational discrepancies are provided to the client but do not preclude certification.
 - Enter the discrepancy number of any discrepancies written (from the separate discrepancy report), with a short description in the Comments column.

Vendor :	Hart InterCivic	Reviewer(s):	Lesley Hoppert
Voting System:	Verity 1.0	Review Date:	2/5/2015

Applicable TDP Documents

Document Title (from cover pg), version, date	Doc #	File name
Hart Requirements Management Requirements Management Process, Rev A.01, 12/18/14	#1	SQA Requirements Management Process 1000540 A01.pdf
Verity Voting National Certification Test Specification, Rev A.00, 12/18/2014	#2	Verity Voting National Certification Test Specification



Document Title (from cover pg), version, date	Doc #	File name
		4005527 A00
Verity Voting Summative Usability Test Plan, Rev A.00, 11/28/2012	#3	Verity Summative Usability Test Plan 4005495 A00
Verity Trace - System Test-Verification Specification, dated 2/4/15	#4	Verity Trace - System Test-Verification Specification
Security test cases, no version or date, pdf file saved on 1/28/15	#5	Security test cases
Usability Test Report of Verity Touch/Touch Writer and Verity Scan, 2/4/15	#6	Verity Voting Summative Usability Report 4005-496 A00

Trace Table

Req #	VVSG 2005 Testing Standards - Vol.2 unless otherwise specified	Traced	Comments
2	Technical Data Package		
2.1	Scope		
2.1.1	Content and Format		
2.1.1.1	Required Content for Initial Certification (<i>Indicate "*" if this document does not fall into the identified category of documentation.</i>)		
e.	At minimum, the TDP shall contain the following documentation: System test and verification specifications;	Doc #2 - Entire doc	Y
2.1.1.3	Format		
	The requirements for formatting the TDP are general in nature; specific format details are of the vendor's choosing. The TDP shall include a detailed table of contents for the required documents, an abstract of each document and a listing of each of the informational sections and appendices presented. A cross-index shall be provided indicating the portions of the documents that are responsive to documentation requirements for any item presented.	Doc #1, #2 and #3 - Tables of Contents Doc #2 - Sections 2 and 3: Abstracts Doc #4 - Entire doc: Cross-index	Y
2.1.3	Protection of Proprietary Information		
	The vendor shall identify all documents, or portions of documents, containing proprietary information not approved for public release. Any person or test agency	Doc #1 - Cover pg and footers Doc #2 - Cover pg and footers Doc #3 - Cover pg and footers	Y



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	receiving proprietary information shall agree to use it solely for the purpose of analyzing and testing the system, and shall agree to refrain from otherwise using the proprietary information or disclosing it to any other person or agency without the prior written consent of the vendor, unless disclosure is legally compelled.		
2.7	System Test and Verification Specification		
a.	The vendor shall provide test and verification specifications for: Development test specifications;		See 2.7.1 below
b.	The vendor shall provide test and verification specifications for: National Certification test specifications.		See 2.7.2 below
2.7.1	Development Test Specifications		
	The vendor shall describe the plans, procedures, and data used during software development and system integration to verify system logic correctness, data quality, and security.	Section header - see subsections below	See below
a.	This description shall include: Test identification and design, including: <ul style="list-style-type: none"> i. Test structure; ii. Test sequence or progression; and iii. Test conditions; 	Doc #5 - Entire doc	<p>Y - DISC VTY-99: The provided documents do not describe the plans, procedures, and data used during software development and system integration to verify system logic correctness, data quality, and security, including:</p> <ul style="list-style-type: none"> i. Test structure; ii. Test sequence or progression; and iii. Test conditions <p>Note: The vendor traced this requirement to "SQA Requirements Management Process 1000540 A00.pdf" sections 2 and 3.1, which cover requirements management and elicitation of requirements, not the VVSG required content.</p> <p>CLOSED L. Hoppert 2/5/15: A sample doc</p>



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			"Security test cases," added to the TDP on 2/4/15, illustrates the test structure, sequence and conditions. Although it does not include coverage of logic correctness and data quality because it's limited to the security tests, SLI has separately reviewed Hart's testing in Hart's HPQC test system and has confirmed system-wide test coverage, per M. Santos, SLI Test Manager.
b.	This description shall include: Standard test procedures, including any assumptions or constraints;	Doc #5 - Entire doc	<p>Y - DISC VTY-100: The provided documents do not describe the plans, procedures, and data used during software development and system integration to verify system logic correctness, data quality, and security, including: Standard test procedures, including any assumptions or constraints Note: The vendor traced this requirement to "SQA Requirements Management Process 1000540 A00.pdf" section 4, which covers QC REQUIREMENTS MANAGEMENT FLOW, not the VVSG required content. Closed L. Hoppert 2/5/15: The sample doc "Security test cases," added to the TDP on 2/4/15, shows the standard test procedures.</p>
c.	This description shall include: Special purpose test procedures including any assumptions or constraints;	NA per the vendor	<p>NA Notes: The VVSG does not define "special purpose test procedures" so the vendor may state that all their test procedures fall under the "standard" category. Usability tests are covered below.</p>
d.	This description shall include: Test data, test data source, whether it is real or	Doc #5 - Entire doc	<p>Y - DISC VTY-101: The provided documents do not describe the</p>



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	simulated, and how test data are controlled;		plans, procedures, and data used during software development and system integration to verify system logic correctness, data quality, and security, including: Test data, test data source, whether it is real or simulated, and how test data are controlled Note: The vendor traced this requirement to "SQA Requirements Management Process 1000540 A00.pdf" section 6, which covers REQUIREMENTS CHANGE MANAGEMENT, not the VVSG required content. Closed L. Hoppert 2/5/15: The sample doc "Security test cases," added to the TDP on 2/4/15, shows the data used.
e.	This description shall include: Expected test results;	Doc #5 - Entire doc	Y - DISC VTY-102: The provided documents do not describe the plans, procedures, and data used during software development and system integration to verify system logic correctness, data quality, and security, including: Expected test results Note: The vendor traced this requirement to "SQA Requirements Management Process 1000540 A00.pdf" sections 2.2 and 2.5, which cover requirements analysis and verification; the Verification section addresses expected results at a high level without specifics. Closed L. Hoppert 2/5/15: The sample doc "Security test cases," added to the TDP on 2/4/15, shows the expected results.
f.	This description shall include: Criteria for evaluating test results.	Doc #5 - Entire doc	Y - DISC VTY-103: The provided documents do not describe the plans, procedures, and data used during software development and system integration to verify



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			<p>system logic correctness, data quality, and security, including: Criteria for evaluating test results Note: The vendor traced this requirement to "SQA Requirements Management Process 1000540 A00.pdf" section 2.3, which covers requirements Specification and Design, not the VVSG required content. Closed L. Hoppert 2/5/15: The sample doc "Security test cases," added to the TDP on 2/4/15, shows the criteria for evaluating results.</p>
END	Additional details for these requirements are provided by MIL-STD-498, Software Test Plan and Software Test Description. In the event that test data are not available, the accredited test lab shall design test cases and procedures equivalent to those ordinarily used during product verification.		
2.7.2	National Certification Test Specifications		
	The vendor shall provide specifications for verification and validation of overall software performance.	Section header - see subsections below	See below
a	These specifications shall cover: Control and data input/output;	Doc #2 - Sections 4-14	Y
b.	These specifications shall cover: Acceptance criteria;	Doc #2 - Sections 4-14	Y
c.	These specifications shall cover: Processing accuracy;	Doc #2 - Sections 7, 8, 10, 13, 14	Y
d.	These specifications shall cover: Data quality assessment and maintenance;	Doc #2 - Sections 7, 10, 13, 14	Y
e.	These specifications shall cover: Ballot interpretation logic;	Doc #2 - Sections 7, 10, 13	Y
f.	These specifications shall cover: Exception handling;	Doc #2 - Section 7.6.6	Y



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g.	These specifications shall cover: Security;	Doc #2 - Sections 4, 5, 6, 7, 8, 9, 12, 13, 14	Y
h.	These specifications shall cover: Production of audit trails and statistical data.	Audit trails: Doc #2 - Sections 4-14 Statistical data: Doc #2 - Sections 7, 10, 13, 14	Y
2.7.2 END	The specifications shall identify procedures for assessing and demonstrating the suitability of the software for election use.	Doc #2 - Section 2.1	Y
Vol. 1, 3.1.1	Usability Testing		
	The vendor shall conduct summative usability tests on the voting system using individuals representative of the general population. The vendor shall document the testing performed and report the test results using the Common Industry Format. This documentation shall be included in the Technical Data Package submitted to the EAC for national certification.	Doc #6 - Entire Doc	Y - DISC VTY-104 : The test results report for the summative usability tests on the voting system has not been provided yet. Unable to confirm whether the results will be reported using the Common Industry Format. CLOSED , L. Hoppert, 2/5/15: Doc "Verity Voting Summative Usability Report 4005-496 A00" was provided on 2/4/15 and fulfills this requirement.
3.1.1, etc.	The vendor's usability test report shall conform to the EAC requirements specified in <i>EAC Decision on Request for Interpretation 2013-04 (Usability Testing)</i> . *See the requirements listed below, at the end of this document – all "shall" statements must be met.	Doc #6 - Entire Doc	Y - DISC VTY-105 : The EAC's RFI decision 2013-04 states that for the summative usability test, "Voting System Manufacturers shall recruit at least eight test participants within each user group, including at least eight general voters, eight voters with low vision, eight blind voters, and eight voters with dexterity disabilities." Hart's document "Verity Summative Usability Test Plan 4005495 A00" section 4.1.3 says they will recruit "approximately 12 to 15 people who reflect various demographics,



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			including special-needs audiences". This is insufficient per the EAC's Decision 2013-04. CLOSED 2/6/15, L. Hoppert: Per doc "Verity Voting Summative Usability Report 4005-496 A00," the vendor's usability testing included the required numbers of participants for each identified group.
Vol. 1, 3.2.2.1	Partial Vision		
a.	The vendor shall conduct summative usability tests on the voting system using partially sighted individuals. The vendor shall document the testing performed and report the test results using the Common Industry Format. This documentation shall be included in the Technical Data Package submitted to the EAC for national certification.	Doc #3, Section 1.1 Doc #6 pg. 46	Y
Vol. 1, 3.2.2.2	Blindness		
a.	The vendor shall conduct summative usability tests on the voting system using individuals who are blind. The vendor shall document the testing performed and report the test results using the Common Industry Format. This documentation shall be included in the Technical Data Package submitted to the EAC for national certification.	Doc #3, Section 1.1 Doc #6 pg. 46	Y
Vol. 1, 3.2.3	Dexterity		
a.	The vendor shall conduct summative usability tests on the voting system using individuals lacking fine motor control. The vendor shall document the testing performed and report the test results using the Common Industry Format. This documentation shall be included in the Technical Data Package submitted to the EAC for national certification.	Doc #3, Section 1.1 Doc #6 pg. 46	Y



End of Document
