



From the Vendor Trace document or declaration, identify all documents that pertain to the **System Hardware 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.

<b>Vendor :</b>	Hart InterCivic	<b>Reviewer(s):</b>	Lesley Hoppert
<b>Voting System:</b>	Verity 1.0	<b>Review Date:</b>	2/16/2015

**Applicable TDP Documents**

Document Title (from cover pg), version, date	Doc #	File name
Verity Operational Guide, Rev A.12. No Date	#1	Verity Operational Guide 6640001 A12
Verity Voting Performance Characteristics, Rev A.08, 1/26/2015	#2	Verity Performance Characteristics 4005497 A08
Bills of Materials: Scan (3005350B, no date), TouchWriter (3005352B, no	#3	3005350B-Scan_Indented_BOM+AVL_Pre-EAC, 3005352B-



Document Title (from cover pg), version, date	Doc #	File name
date), Ballot Box (3005357A, no date), Standard Booth (3005358A, no date), Accessible Booth (3005359A, no date)		TouchWriter-Indented_BOM+AVL_Pre-EAC, 3005357A-Ballot-Box_Indented_BOM+AVL, 3005358A-Standard-Booth_Indented_BOM+AVL, 3005359A-Accessible-Booth_Indented_BOM+AVL
Verity Scan schematics	#4	2005350 folder
Verity Touch Writer schematics	#5	2005352 folder
Verity Access schematics	#6	2005010 folder
Verity Ballot Box schematics	#7	2005357 folder
Verity Standard Booth Assembly	#8	2005358 folder
Verity Accessible Booth Assembly	#9	2005359 folder
Verity Electronics Specification, Rev A.05, 1/19/2015	#10	Verity Electronics Specification 4005461 A05.pdf
Verity System Design Specification [Verity Base Station Microcontroller Specification], Rev A.00, 4/28/1014 [Should be 4/28/2014]	#11	Verity Base Station Microcontroller Specification 4005462 A00.pdf
Verity Scan FCCB Radiated Emissions_15Sept2014	#12	Verity_Scan_FCCB_Radiated_Emissions_15Sept2014.pdf
Verity Writer FCCB Radiated Emissions_17Sept2014	#13	Verity_Writer_FCCB_Radiated_Emissions_17Sept2014.pdf
Verity Trace - System Hardware Specifications, 2/10/15	#14	Verity Trace - System Hardware Specifications
Verity 1.0 Technical Data Package Overview, A.12, 2/13/15	#15	Verity 1.0 TDP Overview 4005511 A12
System Description Technical Document, Rev A.08, 10/31/2014	#16	Verity System Description 4005466 A08
Verity - Operations PRD Ops/Services/Supply Chain Planning Document, Rev. A.01, 12/11/14	#17	Verity OPS-Services-SC Plan 4005302 A01

**Trace Table**

Req #	VVSG 2005 Testing Standards - Vol.2 unless otherwise specified	Traced	Comments
2	<b>Technical Data Package</b>		
2.1	<b>Scope</b>		
2.1.1	<b>Content and Format</b>		
2.1.1.1	<b>Required Content for Initial Certification</b> (Indicate "*" if this document does not fall into the identified category of documentation.)		
c.	At minimum, the TDP shall contain the following documentation: System hardware specifications;	Doc #2 - Entire Doc	Y



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<b>2.1.1.3</b>	<b>Format</b>		
	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 and #2 - detailed TOCs Doc #14 - Entire doc Doc #15 - Entire doc	Y
<b>2.1.3</b>	<b>Protection of Proprietary Information</b>		
	The vendor shall identify all documents, or portions of documents, containing proprietary information not approved for public release. Any person or test agency 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.	Doc #1 - Cover pg Doc #2 - Cover pg and footers Doc #10 - Cover pg and footers Doc #11 - Cover pg and footers Doc #15 - Entire doc	Y
<b>2.4</b>	<b>System Hardware Specifications</b>		
	The vendor shall expand on the system overview by providing detailed specifications of the hardware components of the system, including specifications of hardware used to support the telecommunications capabilities of the system, if applicable.	Doc #1 - Sections 6 Verity Hardware Components and 12, Specifications Doc #2 - Entire doc Bills of Materials: Doc #3 (5 docs) - Entire doc Schematics: Docs #4, 5, 6, 7, 8, 9 - Entire doc Doc #10 - Entire doc Doc #11 - Entire doc	Y Note: Telecommunications not supported in this voting system
<b>2.4.1</b>	<b>System Hardware Characteristics</b>		
	The vendor shall provide a detailed discussion of the characteristics of the system, indicating how the hardware meets individual requirements defined in Volume I, Section 4, including:	See subsections below	Requirement Header



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a.	<b>Performance characteristics:</b> This discussion addresses basic system performance attributes and operational scenarios that describe the manner in which system functions are invoked, describe environmental capabilities, describe life expectancy, and describe any other essential aspects of system performance;	Attributes and operational scenarios: Doc #1 - Entire doc Environmental capabilities: Doc #1 - Section 5 VOTING - VERITY POLLING PLACE EQUIPMENT, subsection Equipment Environmental Standards Life expectancies: Doc #1 - Section 5 VOTING - VERITY POLLING PLACE EQUIPMENT, subsection Performance Other aspects: Doc #1 - Section 5	Y
b.	<b>Physical Characteristics:</b> This discussion addresses suitability for intended use, requirements for transportation and storage, health and safety criteria, security criteria, and vulnerability to adverse environmental factors;	Storage reqs: Doc #2 - Section 3.11 Equipment Environmental Standards Health/safety: Doc #2 - Section 4.1.5 Safety; Doc #1 - Section 1 Security: Doc #1 - Section 5 VOTING - VERITY POLLING PLACE EQUIPMENT, subsection Security and Section 11 Security; Doc #2 - Section 5.1 Security Vulnerability: Doc #1 - Section 9 STORAGE AND DEPLOYMENT subsection Transportation and Storage; Doc #2 - Section 3.11 Equipment Environmental Standards	Y
c.	<b>Reliability:</b> This discussion addresses system and component reliability stated in terms of the systems operating functions, and identification of items that require special handling or operation to sustain system reliability;	Identification of items the require special handling: Doc #1 - Section 5 VOTING - VERITY POLLING PLACE EQUIPMENT, subsection Reliability; Section 9 STORAGE AND DEPLOYMENT and Section 10 PREVENTIVE MAINTENANCE PROCEDURES System and component reliability: Doc #10 - Section 14.1	Y DISC VTY-82: Unable to locate a detailed description of system and component reliability characteristics. <b>Closed</b> 1/28/15: Traced to " Verity Electronics Specification 4005461 A05.pdf" section 14.1
d.	<b>Maintainability:</b> Maintainability represents the ease with which maintenance actions can be performed based on	Doc #1 - Section 10 PREVENTIVE	Y



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	the design characteristics of equipment and software and the processes the vendor and election officials have in place for preventing failures and for reacting to failures. Maintainability includes the ability of equipment and software to self-diagnose problems and make non-technical election workers aware of a problem. Maintainability also addresses a range of scheduled and unscheduled events;	MAINTENANCE PROCEDURES	
e.	<b>Environmental conditions:</b> This discussion addresses the ability of the system to withstand natural environments, and operational constraints in normal and test environments, including all requirements and restrictions regarding electrical service, telecommunications services, environmental protection, and any additional facilities or resources required to install and operate the system.	Doc #1 - Section 9 STORAGE AND DEPLOYMENT subsection Storage Procedures (electrical requirements) Doc #2 - Section 3.11 Equipment Environmental Standards	Y
<b>2.4.2</b>	<b>Design and Construction</b>		
	The vendor shall provide sufficient data, or references to data, to identify unequivocally the details of the system configuration submitted for testing.	Doc #1 - Section 3 BRIEF DESCRIPTION (Also covered in more detail in the System Description doc)	Y
	The vendor shall provide a list of materials and components used in the system and a description of their assembly into major system components and the system as a whole.	Doc #1 - Section 6 VERITY HARDWARE COMPONENTS subsection Verity Parts List Bills of Materials: Doc #3 (5 docs) - Entire doc Schematics: Docs #4, 5, 6, 7, 8, 9 - Entire doc	Y
a.	Paragraphs and diagrams shall be provided that describe: Materials, processes, and parts used in the system, their assembly, and the configuration control measures to ensure compliance with the system specification;	Materials, parts, assembly Doc #3 (5 docs) - Entire doc; Schematics: Docs #4, 5, 6, 7, 8, 9 - Entire doc Configuration control measures: Doc #17 - Section 6.12	Y - DISC VTY-83: Unable to locate the hardware manufacturing related configuration control measures used to ensure compliance with the system specification <b>Update 1/28/15:</b> Still open. Vendor response does not specify whether or where there is a relevant document update. <b>CLOSED 2/16/15, L. Hoppert:</b> Traced to document "Verity OPS-Services-SC Plan



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			4005302 A01" section 6.12
b.	Paragraphs and diagrams shall be provided that describe: The electromagnetic environment generated by the system;	Doc #12 - Entire doc Doc #13 - Entire doc	Y
c.	Paragraphs and diagrams shall be provided that describe: Operator and voter safety considerations, and any constraints on system operations or the use environment;	Doc #1 - Section 1 IMPORTANT SAFEGUARDS	Y
d.	Paragraphs and diagrams shall be provided that describe: Human factors considerations, including provisions for access by disabled voters.	Doc #1 - Section 5 VOTING - VERITY POLLING PLACE EQUIPMENT, subsection Accessibility Doc #1 - Section 6 VERITY HARDWARE COMPONENTS (Verity Accessible Booth, Verity Access) Doc #5 Doc #6 Doc #9	Y
<b>Vol. 1, 4.1.4.3</b>	<b>DRE System Recording Requirements</b>		
bi	To ensure vote recording accuracy and integrity while protecting the anonymity of the voter, all DRE systems shall: Contain all mechanical, electromechanical, and electronic components; software; and controls required to detect and record the activation of selections made by the voter in the process of voting and casting a ballot;	NS	NS - DRE not supported
b.ii	To ensure vote recording accuracy and integrity while protecting the anonymity of the voter, all DRE systems shall: Incorporate redundant memories to detect and allow correction of errors caused by the failure of any of the individual memories	NS	NS
<b>Vol. 1, 4.2.3</b>	<b>Transport and Storage of Precinct Systems</b>		



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a.	All precinct voting systems shall Provide a means to safely and easily handle, transport, and install voting equipment, such as wheels or a handle or handles	Doc #4 Doc #5 Doc #7 Doc #8 Doc #9	Y
<b>Vol. 1, 4.3.1</b>	<b>Materials, Processes, and Parts</b>		
	Precinct count systems shall be designed in accordance with best commercial practice for microcomputers, process controllers, and their peripheral components. Central count voting systems and equipment used in a central tabulating environment shall be designed in accordance with best commercial and industrial practice.	See below	Requirement Header
a.	All voting systems shall: Be designed and constructed so that the frequency of equipment malfunctions and maintenance requirements are reduced to the lowest level consistent with cost constraints	Doc #16 - Section 3.1.7.9 - 4.3.1.applies to Scan Doc #1 - Sections 5 and 10	Y - DISC VTY-84: Unable to locate a description of how the system was designed and constructed so that the frequency of equipment malfunctions and maintenance requirements are reduced to the lowest level consistent with cost constraints Note: A relevant description was located for Scan in the document "Verity System Description 4005466 A08" section 3.1.7.9 - but not for the other components <b>Closed 1/28/15</b> - Traced to "Verity Operational Guide 6640001 A12" sections 5 and 10
b.	All voting systems shall: Include, as part of the accompanying Technical Data Package, an approved parts list	Doc #1, Section 6, subsection Verity Parts List Doc #3 (5 docs) - Bills of Materials	Y
c.	All voting systems shall: Exclude parts or components not included in the approved parts list	Doc #3 (5 docs) - Bills of Materials, including Approved Vendor List (AVL) tabs	Y - DISC VTY-85: Unable to confirm a policy and process to prevent unapproved parts from being included between start of manufacturing and delivery to the customer. <b>Update 1/28/15:</b> The vendor's PCA trace



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			<p>indicates that the "Verity Parts List" section of the Operational Guide fulfills this requirement. However, the requirement is not limited to the set of completed components delivered to customers. It is looking for a policy and procedure for excluding any non-approved parts within those components. Note: It's possible that the processes described in "Verity OPS-Services-SC Plan 4005302" would prevent the inclusion of non-approved parts but the document doesn't clearly state this.</p> <p><b>CLOSED</b> 2/16/15, L. Hoppert: Traced to Bill of Materials (BOM) documents, which include specific part numbers and approved manufacturers</p>

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End of Document

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