

## Appendix D – Changes to the VSTL Standard Testing Methodology for UPPTR

Step	VSTL Standard Methodology	Changes to meet UPPTR	Risks
a.	Initial examination of the system and the technical documentation provided by the vendor to ensure that all components and documentation needed to conduct testing have been submitted, and to help determine the scope and level of effort of testing needed. TDP Review.	Technical Data Package (TDP) was Not Required.	VSTLs may find it difficult to design new test cases or to modify existing test cases; to conduct complete testing or to adequately scope project.
b.	Examination of the vendor's Quality Assurance Program and Configuration Management Plan.	Not Required	Vendor may deliver wrong configuration of voting system to VSTL for testing.
c.	Development of a detailed system test plan that reflects the scope and complexity of the system, and the status of system certification (i.e., initial certification or a recertification to incorporate modifications).	Test Plan in VSTLs format.	Scope of testing and effort may not be completely defined and controlled.
d.	Code review for selected software components.	Not Required	VSTL may not adequately assess the need for additional test cases; may not define white-box test cases for security testing.
e.	Witnessing of a system 'build' conducted by the vendor to conclusively establish the system version and components being tested.	Not Required	VSTL may not be able to test all functionality if not included in build.
f.	Operational testing of hardware components, including environmental tests, to ensure that operational performance requirements are achieved.	Not Required	
g.	Functional and performance testing of hardware components.	Not Required	
h.	System installation testing and testing of related documentation for system installation and diagnostic testing.	Not Required	May cause test environment set-up delays; for remote system testing and diagnosis, this could be significant schedule impact to testing.
i.	Functional and performance testing of software components.	Not Required	May not be able to completely test security features. May not catch capacity problems (e.g., number of concurrent users) until later in testing.

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j.	Functional and performance testing of the integrated system, including testing of the full scope of system functionality, performance tests for telecommunications and security; and examination and testing of the System Operations Manual.	Functional testing only. No System Operations Manual was required.	Without an adequate number of test cases, the complete testing of functionality would not be performed.
k.	Examination of the system maintenance manual.	Not Required	May miss security risks to test for.
l.	Preparation of the National Certification Test Report.	Not Required	
	Final test report including any discrepancies found during testing would be sent to each vendor; only a redacted report without any test discrepancies would be submitted.	In VSTLs format	
	Final test report includes the laboratories' comments on suitability and testability of the requirements as well as any recommendations for improvement.	In VSTLs format	
m.	Delivery of the National Certification Test Report to the EAC.	Not Required	