Enabler Validation Plan for SVG 1.0

Candidate Version 1.0 – 14 Oct 2008

Open Mobile Alliance

OMA-EVP-SVG-V1_0-20081014-C

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1. Scope

This document details the Validation plan for the SVG 1.0 Enabler Release. The successful accomplishment of the validation activities will be required for the Enabler to be considered for Approved status.

The validation plan for the SVG1.0 Enabler Release specifications is based on testing expectations in the Enabler Test Requirements (ETR). While the specific test activities to be performed are described in the Enabler Test Specification (ETS) the test environment is described in this plan. This test environment details infrastructure, operational and participation requirements identified for the needed testing activities.

1.1 Assumptions

The test programme for SVG 1.0 validation utilizes heavily the W3C SVG Tiny 1.2 test suite. The assumption is that this test suite and the accompanying test harness are publicly available.

1.2 Exclusions

N/A

2. References

2.1 Normative References

[IOPPROC] "OMA Interoperability Policy and Process", Version 1.6, Open Mobile Alliance™, OMA-ORG-IOP_Process-V1_6, URL:http://www.openmobilealliance.org/

[RFC2119] "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL:http://www.ietf.org/rfc/rfc2119.txt

[SVG_TS] " Scalable Vector Graphics (SVG) for the Mobile Domain ", Open Mobile Alliance™, OMA-TS-SVG-Mobile-V1_0, http://www.openmobilealliance.org/

[SVG_ETR] "Enabler Test Requirements for SVG Mobile Domain", Open Mobile Alliance™, OMA-ETR-SVG_Mobile_Domain-V1_0, http://www.openmobilealliance.org/

[SVG_ETS] "Enabler Test Specification for SVG", Open Mobile Alliance™, OMA-ETS-SVG-Mobile-V1_0-20080306-D, http://www.openmobilealliance.org/

[SVG_EICS] "Enabler Implementation Conformance Statement for SVG Mobile Domain", Open Mobile Alliance™, OMA-EICS-SVG_Mobile_Domain-V1_0, http://www.openmobilealliance.org/

[SVGT] "Scalable Vector Graphics (SVG) Tiny", Version 1.2, W3C Candidate Recommendation, O. Andersson, R. Berjon, et al, 10 Aug 2006, URL: http://www.w3.org/TR/SVGMobile12/

[SVG_SUITE] "SVG Tiny 1.2 Test Suite", September 7th 2007, URL: http://www.w3.org/Graphics/SVG/Test/20070907/

[SVG_BTP] "Bi-lateral Test Pack for SVG", URL:

2.2 Informative References

[OMADICT] "Dictionary for OMA Specifications", Version 2.6, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_6, URL:http://www.openmobilealliance.org/

[SMIL] "Synchronized Multimedia Integration Language (SMIL 2.0)", 2nd Edition, J. Ayars, D. Bulterman et. al., 07 January 2005. URL: http://www.w3.org/TR/2005/REC-SMIL2-20050107/

[SVG] "Scalable Vector Graphics (SVG) Full", Version 1.2, D. Jackson et. al, 13 April 2005, URL:http://www.w3.org/TR/SVG12/

[WAE] "Wireless Application Environment", Open Mobile Alliance™, OMA-WAP-TS-WAESpec-V2_3, URL:http://www.openmobilealliance.org/

3. Terminology and Conventions

3.1 Conventions

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except “Scope”, are normative, unless they are explicitly indicated to be informative.

3.2 Definitions

TestFest	OMA hosted multi-lateral interoperability testing event
Bi/unilateral testing	Testing done in each vendor’s own premises against the test server.

3.3 Abbreviations

OMA	Open Mobile Alliance
ETR	Enabler Test Requirements
ETS	Enabler Test Specification
SVG	Scalable Vector Graphics
WAE	Wireless Application Environment

4. Enabler Validation Description

Scalable Vector Graphics (SVG) is a W3C specification that provides an XML-based way to describe and render 2-Dimensional graphics and graphical applications. There are two mobile profiles of SVG which are targeted towards resource-constrained devices. These are SVG Mobile and SVG Tiny.

Of these, SVG Tiny 1.2 is the specification chosen by OMA to provide 2D graphical applications within the Wireless Applications Environment [WAE].

The OMA SVG 1.0 enabler is a strict subset of requirements found from the W3C SVG Tiny 1.2 [SVGT] specification. The detailed description of the OMA SVG 1.0 enabler can be found from the SVG 1.0 Technical Specification [SVG_TS].

W3C has developed a test suite for the SVG Tiny 1.2 [SVG_SUITE].

Since the OMA SVG 1.0 enabler is a subset of implementation requirements, found from the W3C Tiny 1.2 specification and since most of test requirements found from the SVG 1.0 Enabler Test Requirements document are met by the W3C SVG Tiny 1.2 test suite, the OMA test programme to validate the SVG 1.0 enabler will also utilize the W3C test suite.

A list of test cases that are expected to be run as part of the OMA SVG 1.0 enabler validation plan can be found from Section 5.3.2 and also from the SVG 1.0 Enabler Test Specification.

The listed test cases can be run as part of the OMA hosted TestFests or vendors may run them on bi/unilateral bases and provide test results back to OMA using the SVG 1.0 Test Session Report template [SVGTSR]. The test evidence from these events will be used to approve the OMA SVG 1.0 enabler.

Alternatively, since W3C uses the above test suite to validate the SVG Tiny 1.2 specification and since the OMA test programme also utilizes the same test suite, once the SVT Tiny 1.2 specification has been approved by W3C, this can be used as evidence that the OMA SVG 1.0 enabler has also been sufficiently tested and can be approved.

5. TestFest Activities

5.1 Enabler Test Guidelines

A detailed description of the SVG 1.0 enabler can be found [SVG_TS].

5.1.1 Minimal Test Configuration

The minimal test configuration of [SVG_TS] shall include:

- A Client implementation.
- A Content server providing necessary test suites that is accessible through a mobile telephony network (W3C test server).
- A Mobile telephony network.

5.1.2 Minimal Participation Guidelines

At minimum 3 client implementations are required for OMA TestFests. There is no minimum requirement for bi/unilateral testing.

5.1.3 Optimal TestFest Achievement Guidelines

The ETS Test Cases listed below represent a subset of all the Test Cases for the Enabler that it is thought can be executed in a test session at an OMA TestFest. This list is intended to facilitate maximum test coverage of the functionality of the enabler within a test session. It is not intended to be the only tests executed at a TestFest, and teams are encouraged to execute more tests if they are able to do in the time allowed.

The list includes:

Test Case Id	Priority
SVG-1.0-con-101	High
SVG-1.0-con-102	Medium
SVG-1.0-con-121	High
SVG-1.0-con-131	High
SVG-1.0-con-141	High
SVG-1.0-con-151	High
SVG-1.0-con-152	High
SVG-1.0-con-153	High
SVG-1.0-con-154	High
SVG-1.0-con-155	High
SVG-1.0-con-156	High
SVG-1.0-con-157	High
SVG-1.0-con-161	Medium
SVG-1.0-con-171	Medium
SVG-1.0-con-181	Medium
SVG-1.0-con-182	High
SVG-1.0-con-183	High
SVG-1.0-con-184	Medium
SVG-1.0-con-191	High

Test Case Id	Priority
SVG-1.0-con-201	High
SVG-1.0-con-211	High
SVG-1.0-con-221	Medium
~~SVG-1.0-con-231~~	~~N/A~~
SVG-1.0-con-241	High
SVG-1.0-con-251	High
SVG-1.0-con-261	High
SVG-1.0-con-271	High
SVG-1.0-con-281	High
SVG-1.0-con-291	Medium
SVG-1.0-con-301	Medium
SVG-1.0-con-311	Medium
SVG-1.0-con-321	High

5.2 Enabler Test Requirements

5.2.1 Test Infrastructure Requirements

The Network Elements involved in Browsing Testing are:

- PLMN (GSM/GPRS)
- A Gateway supporting SVG 1.0 (optional)
- Clients supporting SVG 1.0
- Origin servers holding the SVG test content (W3C SVG Tiny 1.2 test suite).

5.2.2 Enabler Execution Flow

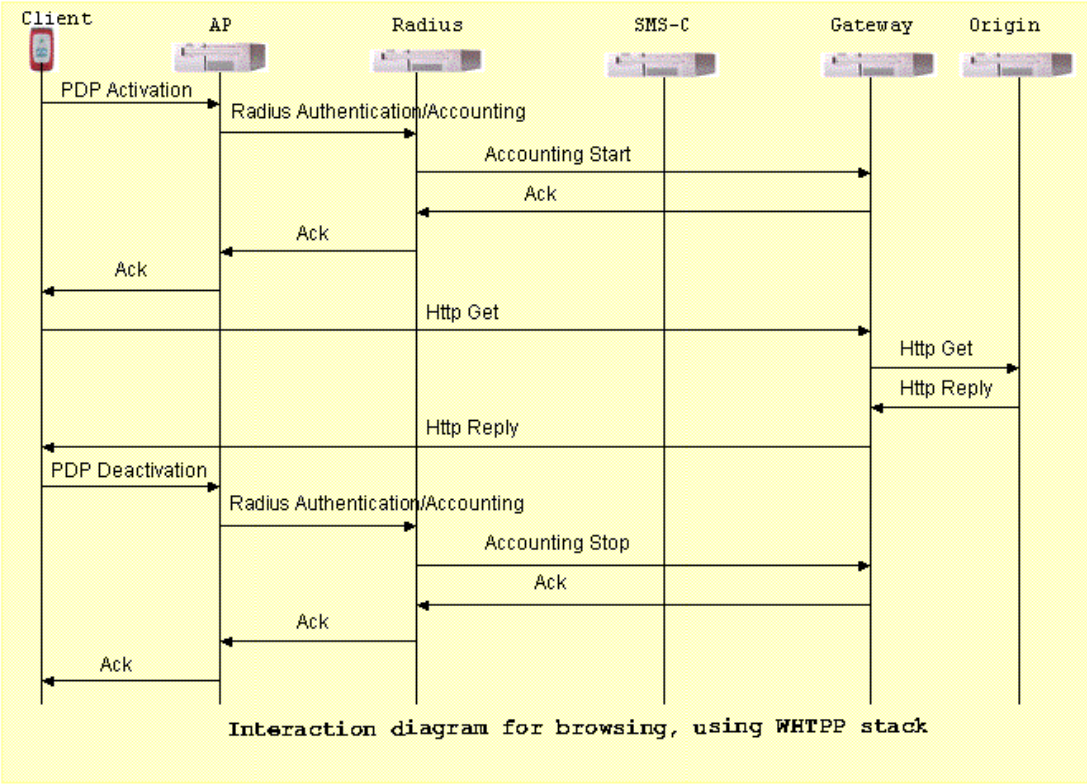

Figure 1: SVG browsing flow

5.2.3 Test Content Requirements

The OMA SVG 1.0 test programme will utilize the W3C SVG Tiny 1.2 test suite [SVG_SUITE].

5.2.4 Test Limitations

5.2.4.1 Physical

None.

5.2.4.2 Resources

One test engineer per tested client device.

5.2.5 Test Restrictions

Testing is dependant on the availability of the W3C SVG Tiny 1.2 test suite and harness [SVG_SUITE].

5.2.6 Test Tools

5.2.6.1 Existing Tools to be Used

Testing will utilize SVG Tiny 1.2 test suite [SVG_SUITE].

Something about the harness and reporting…

5.2.6.2 Test Tool Requirements

The OMA SVG 1.0 test programme does not expect implementations to run all the test cases in the SVG Tiny 1.2 test suite. Only a subset of test cases, which cover the functionality specified by the OMA SVG 1.0 enabler [SVG_TS], is required. The list of test cases within the scope of OMA testing can be found in Section 5.3.2 and in the SVG 1.0 ETS [SVG_ETS].

5.2.7 Resources Required

3 Client implementations are required for the OMA TestFest testing to proceed. One test engineer per registered client device is required.

5.3 Tests to be Performed

The following sections describe the tests related to the formal TestFest validation activities.

5.3.1 Entry Criteria for TestFest

TestFest participants are expected to provide a SVG 1.0 EICS [SVG_EICS] as part of registration. There is no other TestFest entry criterion.

Since SVG 1.0 testing does not require any interaction between the TestFest participants, there is also no pre-testing needed before the actual testing can commence.

5.3.2 Testing to be Performed at TestFest

The following tests need to be performed to fully cover the range of capabilities of the enabler and defined protocols. These tests are to be covered in the TestFest. The tests are defined in the ETS [SVG_ETS] and any special comments are noted.

Test Case Id	Special Conditions
SVG-1.0-con-101	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-102	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-121	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-131	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-141	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-151	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-152	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-153	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-154	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-155	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-156	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-157	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-161	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-171	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-181	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-182	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-183	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-182	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-191	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-201	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.

Test Case Id	Special Conditions
SVG-1.0-con-211	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-221	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
~~SVG-1.0-con-231~~	~~Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.~~
SVG-1.0-con-241	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-251	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-261	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-271	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-281	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-291	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-301	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-311	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.
SVG-1.0-con-321	Access to W3C SVG Tiny 1.2 test suite [SVG_SUITE] is required.

Table 1: Listing of Tests to be Performed at TestFest

5.4 Enabler Test Reporting

5.4.1 Problem Reporting Requirements

Normal Reporting, no special reporting required.

5.4.2 Enabler Test Requirements

Normal Reporting, no special reporting required.

6. Alternative Validation Activities

Vendors may run SVG 1.0 test cases on bi/unilateral bases and provide test results back to OMA using the SVG 1.0 Test Session Report template, found from the SVG Bi-lateral Test Pack [SVG_BTP]. The same test W3C SVG Tiny 1.2 test suite SHALL be used for testing as in OMA TestFests.

Alternatively, since W3C uses the above test suite to validate the SVG Tiny 1.2 specification and since the OMA test programme also utilizes the same test suite, the fact that once the SVT Tiny 1.2 specification has been approved by W3C, this can be used as an evidence that the OMA SVG 1.0 enabler has also been sufficiently tested and can be approved.

7. Approval Criteria

The approval criteria for SVG 1.0 enabler is:

- 3 successful OMA TestFests OR
- 5 test reports altogether from OMA TestFests or from bi/unilateral testing OR
- The W3C SVG Tiny 1.2 specification reaches the state of W3C Recommendation (REC)

It should be noted that the achieved SCR and ETR coverage is dependant on the availability of test cases in the [SVG_SUITE], which is maintained by W3C.

7.1 Enabler Validation Test Cases

The following table should list the set of tests that are used for enabler validation.

Test Case Id	ETR Requirement Id	ETR Status	Notes
SVG-1.0-con-101	SVGMD-002	M	
SVG-1.0-con-102	SVGMD-002	M	
SVG-1.0-con-121	SVGMD-003	M	
SVG-1.0-con-131	SVGMD-004	M	
SVG-1.0-con-141	SVGMD-005	M	
SVG-1.0-con-151	SVGMD-006	M	
SVG-1.0-con-152	SVGMD-006	M	
SVG-1.0-con-153	SVGMD-006	M	
SVG-1.0-con-154	SVGMD-006	M	
SVG-1.0-con-155	SVGMD-006	M	
SVG-1.0-con-156	SVGMD-006	M	
SVG-1.0-con-157	SVGMD-006	M	
SVG-1.0-con-161	SVGMD-007	M	
SVG-1.0-con-171	SVGMD-008	M	
SVG-1.0-con-181	SVGMD-010	M	
SVG-1.0-con-182	SVGMD-010	M	
SVG-1.0-con-183	SVGMD-010	M	
SVG-1.0-con-184	SVGMD-010	M	
SVG-1.0-con-191	SVGMD-012	M	
SVG-1.0-con-201	SVGMD-013	M	
SVG-1.0-con-211	SVGMD-014	M	
	SVGMD-015	M	
SVG-1.0-con-221	SVGMD-016	M	
~~SVG-1.0-con-231~~	~~SVGMD-017~~	M	Not currently available in the [SVG_SUITE]
SVG-1.0-con-241	SVGMD-018	M	
SVG-1.0-con-251	SVGMD-019	M	
SVG-1.0-con-261	SVGMD-021	M	
SVG-1.0-con-271	SVGMD-022	M	
SVG-1.0-con-281	SVGMD-024	M	

Test Case Id	ETR Requirement Id	ETR Status	Notes
SVG-1.0-con-291	SVGMD-027	M	
SVG-1.0-con-301	SVGMD-028	M	
SVG-1.0-con-311	SVGMD-026	M	
	SVGMD-030	M	
SVG-1.0-con-321	SVGMD-035	O	

Table 2: Enabler Validation Test Cases

7.2 Non-Covered ETR Requirements

Any restrictions, limitations and/or infeasibility of testing of the ETR requirements should be stated in this section.

If new information about limitations and/or infeasibility of testing of any of the ETR requirements is discovered, this section should be updated accordingly.

ETR Requirement Id	ETR Status	Notes
SVGMD-001	M	W3C has indicated no planned work to evaluate negative values for the "svg" element.
SVGMD-009	M	W3C has indicated no planned work to evaluate support for editing text.
SVGMD-017	M	Not currently available in the [SVG_SUITE]. There are test assertions under development by W3C.
SVGMD-020	M	W3C has indicated no planned work to evaluate support for DOM socket connection.
SVGMD-023	M	W3C has indicated no planned work to evaluate support for script functions. Scripting tests are covered by SVG-1.0-con-271.
SVGMD-025	M	W3C has indicated no planned work to evaluate support for event listeners.
SVGMD-031	M	W3C has indicated no planned work to evaluate support for compression.
SVGMD-032	O	Since progressive rendering may be done at any interval this is impossible to test.
SVGMD-033	O	As this is a hint, user agents may ignore this element. This feature is thus nearly impossible to test via a pass/fail criteria with any degree of conformance.
SVGMD-034	O	Some areas are covered by “color/shape/text/image-rendering” test cases. W3C has indicated no planned work to increase the coverage.

Table 3: Non-Covered ETR Requirements

Appendix A. Change History (Informative)

A.1 Approved Version History

Reference	Date	Description
n/a	n/a	No prior version –or- No previous version within OMA

A.2 Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-EVP-SVG-V1_0	06 Mar 2008	All	Initial version.
Candidate Versions OMA-EVP-SVG-V1_0	28 Apr 2008	n/a	TP approved ref# OMA-TP-2008-0180-INP_SVG_1.0_EVP_for_Candidate_Approval
Draft Versions OMA-EVP-SVG-V1_0	19 Sep 2008	7	CR incorporated: OMA-IOP-BRO-2008-0139
Candidate Versions OMA-EVP-SVG-V1_0	14 Oct 2008	n/a	TP approved ref# OMA-TP-2008-0367-INP_SVG_1.0_EVP_for_Candidate_re_approval