



Enabler Test Requirements for Mobile Search Framework

Candidate Version 1.0 – 07 Dec 2010

Open Mobile Alliance

OMA-ETR-MSrchFramework-V1_0-20101207-C

Use of this document is subject to all of the terms and conditions of the Use Agreement located at <http://www.openmobilealliance.org/UseAgreement.html>.

Unless this document is clearly designated as an approved specification, this document is a work in process, is not an approved Open Mobile Alliance™ specification, and is subject to revision or removal without notice.

You may use this document or any part of the document for internal or educational purposes only, provided you do not modify, edit or take out of context the information in this document in any manner. Information contained in this document may be used, at your sole risk, for any purposes. You may not use this document in any other manner without the prior written permission of the Open Mobile Alliance. The Open Mobile Alliance authorizes you to copy this document, provided that you retain all copyright and other proprietary notices contained in the original materials on any copies of the materials and that you comply strictly with these terms. This copyright permission does not constitute an endorsement of the products or services. The Open Mobile Alliance assumes no responsibility for errors or omissions in this document.

Each Open Mobile Alliance member has agreed to use reasonable endeavors to inform the Open Mobile Alliance in a timely manner of Essential IPR as it becomes aware that the Essential IPR is related to the prepared or published specification. However, the members do not have an obligation to conduct IPR searches. The declared Essential IPR is publicly available to members and non-members of the Open Mobile Alliance and may be found on the “OMA IPR Declarations” list at <http://www.openmobilealliance.org/ipr.html>. The Open Mobile Alliance has not conducted an independent IPR review of this document and the information contained herein, and makes no representations or warranties regarding third party IPR, including without limitation patents, copyrights or trade secret rights. This document may contain inventions for which you must obtain licenses from third parties before making, using or selling the inventions. Defined terms above are set forth in the schedule to the Open Mobile Alliance Application Form.

NO REPRESENTATIONS OR WARRANTIES (WHETHER EXPRESS OR IMPLIED) ARE MADE BY THE OPEN MOBILE ALLIANCE OR ANY OPEN MOBILE ALLIANCE MEMBER OR ITS AFFILIATES REGARDING ANY OF THE IPR'S REPRESENTED ON THE “OMA IPR DECLARATIONS” LIST, INCLUDING, BUT NOT LIMITED TO THE ACCURACY, COMPLETENESS, VALIDITY OR RELEVANCE OF THE INFORMATION OR WHETHER OR NOT SUCH RIGHTS ARE ESSENTIAL OR NON-ESSENTIAL.

THE OPEN MOBILE ALLIANCE IS NOT LIABLE FOR AND HEREBY DISCLAIMS ANY DIRECT, INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OF DOCUMENTS AND THE INFORMATION CONTAINED IN THE DOCUMENTS.

© 2010 Open Mobile Alliance Ltd. All Rights Reserved.

Used with the permission of the Open Mobile Alliance Ltd. under the terms set forth above.

Contents

1. SCOPE.....	4
2. REFERENCES	5
2.1 NORMATIVE REFERENCES	5
2.2 INFORMATIVE REFERENCES	5
3. TERMINOLOGY AND CONVENTIONS.....	6
3.1 CONVENTIONS	6
3.2 DEFINITIONS.....	6
3.3 ABBREVIATIONS	6
4. INTRODUCTION	7
5. TEST REQUIREMENTS	8
5.1 ENABLER TEST REQUIREMENTS	8
5.1.1 Mandatory Test Requirements.....	8
5.1.2 Optional Test Requirements.....	9
5.2 BACKWARDS COMPATIBILITY	10
5.3 ENABLER DEPENDENCIES	10
APPENDIX A. CHANGE HISTORY (INFORMATIVE).....	11
A.1 APPROVED VERSION HISTORY	11
A.2 DRAFT/CANDIDATE VERSION 1.0 HISTORY	11

Figures

[No table of figures entries found.](#)

Tables

Table 1: Applicability Table for Enabler Specific Mandatory Test Requirements	9
Table 2: Applicability Table for Enabler Specific Optional Test Requirements	10

1. Scope

The Enabler Test Requirements (ETR) document for the Enabler under consideration is created and maintained by the Technical Working Group (TWG) responsible for the technical specifications for the corresponding Enabler.

The ETR document is intended to cover at least those requirements collected in the Requirements Document (RD) and the Architecture Document (AD) in addition to any other items the TWG has identified as important enough to warrant attention from interoperability perspective and identify any technical functionalities that should be covered by testing.

2. References

2.1 Normative References

- [IOPPROC] “OMA Interoperability Policy and Process”, Version 1.3, Open Mobile Alliance™, OMA-ORG-IOP_Process-V1_3, [URL:http://www.openmobilealliance.org/](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](http://www.ietf.org/rfc/rfc2119.txt)

2.2 Informative References

- [OMADICT] “Dictionary for OMA Specifications”, Version 2.7, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_7, [URL:http://www.openmobilealliance.org/](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” and “Introduction”, are normative, unless they are explicitly indicated to be informative.

3.2 Definitions

TestFest Multi-lateral interoperability testing event

3.3 Abbreviations

AD	Architecture Document
RD	Requirement Document
MSAS	Mobile Search Application Server
MSS	Mobile Search Server
SE	Search Engine

4. Introduction

The purpose of this Enabler Test Requirements document is to help guide the testing effort for the Enabler MSrchFramework 1.0, documenting those areas where testing is most important to ensure interoperability of implementations.

The Enabler under consideration comprises the following specifications:

- OMA-MSrchFramework-TS-: Brief description of the specification

Generally, the testing activity should aim at validating the normal working behaviour of the client/server interactions, as well as testing the error conditions whenever it is possible to set up the appropriate scenarios. The following sections provide a more detailed description of the testing requirements for MSrchFramework-1.0.

5. Test Requirements

5.1 Enabler Test Requirements

The test requirements collected in this section are related to the Enabler MSrchFramework-1.0.

In this section, it should be defined what specific functionalities of this Enabler shall or should be tested to ensure adequate operational of the implementations, including any security requirements and constraints on usage if specified (e.g. user can forward a media object but can not visualize it). That means that devices (clients/serves) shall do what they have to do and they shall not do what they are not allowed to do. Both types of test requirements (positive and negative testing) should be included here if so required.

Besides this information, OMA Architecture specifies a “Framework Architecture”, consisting of a set of common functions that need to be invoked in most use cases involving the different Service Enablers. The functionality requirements defined in the OMA Framework Architecture, i.e. authentication, authorization, charging, billing, common directory, etc. should also be listed in this table. Use cases are the main input to identify test requirements.

The following test requirements should cover both Conformance test requirements (i.e. functionality to be tested to verify whether it is implemented either in the client side or in the server side) and Interoperability test requirements (i.e. client/server interactions one with another)

The following sections (Mandatory and Optional test requirements) could also be separated for client and server test requirements.

The tables for the mandatory and optional test requirements include the following columns:

FEATURE KEY:	A set of characters uniquely identifying the enabler test requirement to be tested. It is suggested that the Feature Key is no longer than 4 to 5 characters. The purpose of the Feature Key is that when used, it distinctly refers to only one feature to be tested.
FEATURE DESCRIPTION:	A description of a technical specification feature to be tested.
FEATURE TEST REQUIREMENTS:	A description of what shall be tested for the feature,

5.1.1 Mandatory Test Requirements

Mandatory test requirements should cover those features and use cases that require validation in order to approve the enabler. These include areas with complex interactions between the different functional components of the enabler architecture or where the complexity of the specification(s) is such that there is some uncertainty that they have been correctly specified.

These features and use cases SHOULD cover mandatory and MAY recommend prioritisation of optional implementation features. If testing of some of the mandatory features is not required, then the ETR SHALL contain an explanation for their exclusion.

NOTE: This table needs to be filled out at a level where ambiguity is not present but details are not overwhelming.

Ambiguity means that the details do not have several meanings nor have more than one possible implementation path following.

5.1.1.1 SE Registration

	Feature Key	Feature Description	Feature Test Requirements
Normal Flow	SE-REG	SE registers with MSS using MSF-3	The test verifies that MSS process the registration request successfully and return the unique identification for the registering SE in the response message on MSF-3.
	M-REG	SE submits Meta-Index as part of registration using MSF-3	The test verifies that MSS recognize and process the Meta-Index successfully.
Error Flow			

Table 1: Applicability Table for Enabler Specific Mandatory Test Requirements for SE Registration

5.1.1.2 Personalization

	Feature Key	Feature Description	Feature Test Requirements
Normal Flow	PER-1	MSF-Client send search request on MSF-1.	The test verifies that MSAS process the request successfully and forwards the request to MSS.
	PER-2	MSS dispatches the search request to selected SE.	The test verifies that: <ul style="list-style-type: none"> • MSS process the request successfully. • MSS selects the appropriate SE based on the criteria provided in section 6.3.1 of MSrchFramework-TS. • MSS forwards the request to selected SE.
	PER-3	MSS personalize the results received.	The test verifies that: <ul style="list-style-type: none"> • MSS consolidate the result received form different SE removing redundant items. • MSS re-rank the result based on Personalization Score. • MSS return the result to MSAS in
Error Flow			

Table 2: Applicability Table for Enabler Specific Mandatory Test Requirements for Personalization

5.1.2 Optional Test Requirements

Optional test requirements should cover those features and use cases that are not mandated to be tested, but it is still felt that their inclusion will enhance the quality of the enabler validation.

Additionally, important conformance test requirements MAY be listed.

These features and use cases SHOULD cover optional and MAY cover mandatory implementation features. In case a mandatory feature is listed here, the Feature Test Requirements column should provide an explanation why testing of this feature is not mandated.

NOTE: This table needs to be filled out at a level where ambiguity is not present but details are not overwhelming.

Ambiguity means that the details do not have several meanings nor have more than one possible implementation path following.

	Feature Key	Feature Description	Feature Test Requirements
Normal Flow	MI-1	SE updates its Meta-Index	The test verifies that MSS process the request for Meta-Index update from SEs successfully.
	MI-2	Other MSS updates its Meta-Index	The test verifies that MSS process the request for Meta-Index update from other MSS successfully.
	SP-1	MSF-Client subscribe for content/result and gets content periodically.	The test verifies that MSAS process the Subscription request and generates the required search request towards MSS.
	Q&A	MSF-Client send question and gets personalized answers.	The test verifies that MSAS process the question request successfully, selects the appropriate Expert, forwards the request to MSS with the selected Expert identification.
Error Flow			

Table 3: Applicability Table for Enabler Specific Optional Test Requirements

5.2 Backwards Compatibility

There are no previous MSrchFramework Releases to consider.

5.3 Enabler Dependencies

MSrchFramework-1.0 has no dependencies on other Enablers.

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-ETR-MSrchFramework-V1_0	8 Mar 2010	All	Incorporated CR50
	31 May 2010	All	Incorpoated CR57
	3 Aug 2010	A.2	Updating History Box
	05 Aug 2010	All	Applying OMA 2010 ETR template, clerical clean up
Candidate Version: OMA-ETR-MSrchFramework-V1_0	07 Dec 2010	All	Status changed to Candidate by TP ref # OMA-TP-2010-0499- INP_MSrchFramework_V1_0_ERP_for_Candidate_Approval