



Enabler Test Requirements for Mobile Email 1.0

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Contents

- 1. SCOPE4
- 2. REFERENCES5
 - 2.1 NORMATIVE REFERENCES5
 - 2.2 INFORMATIVE REFERENCES5
- 3. TERMINOLOGY AND CONVENTIONS6
 - 3.1 CONVENTIONS6
 - 3.2 DEFINITIONS6
 - 3.3 ABBREVIATIONS6
- 4. INTRODUCTION7
- 5. TEST REQUIREMENTS8
 - 5.1 ENABLER TEST REQUIREMENTS8
 - 5.1.1 Mandatory Test Requirements8
 - 5.1.2 Optional Test Requirements10
 - 5.2 BACKWARDS COMPATIBILITY10
 - 5.3 ENABLER DEPENDENCIES10
- APPENDIX A. CHANGE HISTORY (INFORMATIVE)11
 - A.1 APPROVED VERSION HISTORY11
 - A.2 DRAFT/CANDIDATE VERSION <CURRENT VERSION> HISTORY11
- APPENDIX B. <ADDITIONAL INFORMATION>12
 - B.1 APP HEADERS12
 - B.1.1 More Headers12

Figures

- Figure 1: Example Figure12

Tables

- Table 1: Applicability Table for Enabler Specific Mandatory Test Requirements9
- Table 2: Applicability Table for Enabler Specific Mandatory Test Requirements9
- Table 3: Applicability Table for Enabler Specific Mandatory Test Requirements9
- Table 4: Applicability Table for Enabler Specific Mandatory Test Requirements10
- Table 5: Applicability Table for Enabler Specific Optional Test Requirements10

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)
- [ERELED] “Enabler Release Document for <Enabler>”, Open Mobile Alliance™, OMA-ERELED-<EnablerName>-Vx_y, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)

2.2 Informative References

- [OMADICT] “Dictionary for OMA Specifications”, Version x.y, Open Mobile Alliance™, OMA-ORG-Dictionary-Vx_y, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [OMA_DM] “OMA Device Management”, Version 1.2 , Open Mobile Alliance™, OMA-ERP-DM-V1_2, 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” 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
DM	Device Management
OMA	Open Mobile Alliance
RD	Requirements Document
TS	Technical Specification

4. Introduction

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

The Enabler under consideration comprises the following specifications:

- OMA-TS-Mobile_Email-V1_0: Description of the Mobile Email Specification
- OMA-TS-MEM_MO-V1_0_0: OMA Management Object for Mobile Email

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 Mobile Email-1.0.

This document also intends to provide some guidance on the prioritization of the specifications and features to be tested within Enabler Mobile Email-1.0.

5. Test Requirements

5.1 Enabler Test Requirements

The test requirements collected in this section are related to the Enabler Mobile Email-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 are covering mandatory features/functions of an Enabler which shall always be implemented in the client/server

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 Mobile Email fundamental requirements

	Feature Key	Feature Description	Feature Test Requirements
Normal Flow	MOB-01	Establishing MEM Session	Verify that the MEM Client is able to establish aMEM session with the MEM Server
	MOB-02	Receiving new email	Verify that the MEM Client is able to receive new email as soon as possible after the email server receives the email
	MOB-03	Reading new email	Verify that the MEM Client is able to read new email
	MOB-04	Viewing email attachments	Verify that the MEM Client is able to view attachments on a device (adapted as needed to the device)

	Feature Key	Feature Description	Feature Test Requirements
	MOB-05	Sending email	Verify that the MEM Client is able to compose and send an email from the device
	MOB-06	Events Filtering rules	Verify that the client can set filtering rules that specify what, when and how emails arriving at the email server or email server events must be reflected or sent in the MEM Client. (e.g. events/notifications)
Error Flow			

Table 1: Applicability Table for Enabler Specific Mandatory Test Requirements

5.1.1.2 Attachements transmission

	Feature Key	Feature Description	Feature Test Requirements
Normal Flow	ATT-01	Email Attachements	Verify that the client can send and receive attachments
	ATT-02	Email Attachements forwarding	Verify that the client can forward an email to another address by email without having to downloaded it
Error Flow			

Table 2: Applicability Table for Enabler Specific Mandatory Test Requirements

5.1.1.3 Out band Notifications

	Feature Key	Feature Description	Feature Test Requirements
Normal Flow	NOTIF-01	Email events using out-band notifications	Verify that the client is notified when a new email has arrived
Error Flow			

Table 3: Applicability Table for Enabler Specific Mandatory Test Requirements

5.1.1.4 Security Requirements

	Feature Key	Feature Description	Feature Test Requirements
Normal Flow	SEC-01	Security issues	Verify that client and server can perform authentication, data integrity, data confidentiality between each other.
Error Flow	SEC-02	Security related error	Verify that client and server can handle the security related errors during the authentication, integrity, and confidentiality.

Table 4: Applicability Table for Enabler Specific Mandatory Test Requirements

5.1.2 Optional Test Requirements

Optional test requirements are covering optional features/functions of an Enabler.

If an optional requirement of the Enabler is implemented in the client/server, this requirement SHALL be tested.

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			
Error Flow			

Table 5: Applicability Table for Enabler Specific Optional Test Requirements

5.2 Backwards Compatibility

<Clarification on which previous Releases the current version of the Enabler SHALL be compatible with and what, if any, test requirements there are for backwards compatibility>

5.3 Enabler Dependencies

The Mobile Email Management Object [MEM MO] can be used to configure MEM parameters based on OMA DM V1.2 [DM_1.2].

Therefore, Mobile Email 1.0 has dependencies with the following:

OMA Device Management Version 1.2

Appendix A. Change History (Informative)

A.1 Approved Version History

Reference	Date	Description
n/a	n/a	No prior version

A.2 Draft/Candidate Version <current version> History

Document Identifier	Date	Sections	Description
Draft Versions	17 Nov 2008	All	Initial document to initiate a ETR of Mobile Email Enabler
OMA-ETR-Mobile_Email-V1_0	06 Jan 2009	All	Default text boxes from the template removed and the "Notif-02" Feature Key deleted
Candidate Versions	18 Aug 2009	All	Status changed to Candidate by TP
OMA-ETR-Mobile_Email-V1_0			OMA-TP-2009-0355- INP_Mobile_Email_V1_0_ERP_for_Candidate_Approval

Appendix B. <Additional Information>

B.1 App Headers

<More text>

B.1.1 More Headers

<More text>

B.1.1.1 Even More Headers

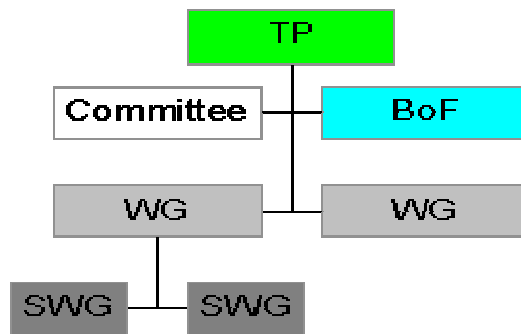


Figure 1: Example Figure