Enabler Release Definition for SIMPLE IM

Candidate Version 1.0 – 13 May 2011

Open Mobile Alliance

OMA-ERELD-SIMPLE_IM-V1_0-20110513-C

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1. Scope

The scope of this document is limited to the Enabler Release Definition of SIMPLE IM according to OMA Release process and the Enabler Release specification baseline listed in section 5.

2. References

2.1   Normative References

[3GPP_TS26141]	"IP Multimedia System (IMS) Messaging and Presence; Media formats and codecs", TS 26.141 V6.1.0 (2005-03), URL: http://www.3gpp.org/
[OMA_IM_AD]	"Instant Messaging using SIMPLE Architecture", Version 1.0, Open Mobile Alliance™, OMA-AD-SIMPLE_IM-V1_0, URL: http://www.openmobilealliance.org/
OMA_IM_RD]	"Instant Messaging Requirements", Version 1.0, Open Mobile Alliance™, OMA-RD-IM-V1_0, URL: http://www.openmobilealliance.org/
[OMA_IM_TS]	"Instant Messaging using SIMPLE", Version 1.0, Open Mobile Alliance™, OMA-TS-SIMPLE_IM-V1_0, URL: http://www.openmobilealliance.org/
[OMA_IM_XDM]	"IM XDM Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-IM_XDM-V1_0, URL: http://www.openmobilealliance.org/
[OMA_IM_Charging]	"OMA SIMPLE IM Charging Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-SIMPLE_IM_Charging-V1_0-20070716-D, URL: http://www.openmobilealliance.org/
[OMA_IM_XDM_Schema]	"OMA-SUP-XSD_im_service_settings-V1_0-20070816-C", Version 1.0, Open Mobile Alliance™,
[OMA_IM_SUP_AC]	"OMA SUP AC SIMPLE IM", Version 1.0, Open Mobile Alliance™, OMA-SUP-AC_ap0008_SIMPLE_IM-V1_0_0-20070614-A, URL: http://www.openmobilealliance.org/
[OMA-SUP-XSD_im_hist_def_meta]	"XDM - IM Conversation History and Deferred Message Metadata", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_hist_and_def_metadata-V1_0, 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
[RFC2234]	"Augmented BNF for Syntax Specifications: ABNF". D. Crocker, Ed., P. Overell. November 1997, URL: http://www.ietf.org/rfc/rfc2234.txt
[SCRRULES]	"SCR Rules and Procedures", Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures, URL: http://www.openmobilealliance.org/

2.2   Informative References

[OMA_DM]	"OMA Device Management", Version 1.2 , Open Mobile Alliance™, OMA-ERP-DM-V1_2, URL: http://www.openmobilealliance.org/
[OMA_Pres]	"OMA Presence Simple", Version 1.0, Open Mobile Alliance™, OMA-ERP-Presence_SIMPLE-V1_0, URL: http://www.openmobilealliance.org/
[OMA_X1]	"OMA XML Document Management", Version 1.0, Open Mobile Alliance™, OMA-ERP-XDM-V1_0, URL: http://www.openmobilealliance.org/
[OMA_X2]	"OMA XML Document Management", Version 2.0, Open Mobile Alliance™, *work in progress.*
[RFC3261]	"SIP: Session Initiation Protocol", J. Rosenberg et al, June 2002, URL: http://www.ietf.org/rfc/rfc3261.txt

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.

The formal notation convention used in sections 8 and 9 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [SCRRULES].

3.2 Definitions

Enabler Release	Collection of specifications that combined together form an enabler for a service area, e.g. a download enabler, a browsing enabler, a messaging enabler, a location enabler, etc. The specifications that are forming an enabler should combined fulfil a number of related market requirements.
Minimum Functionality Description	Description of the guaranteed features and functionality that will be enabled by implementing the minimum mandatory part of the Enabler Release.

3.3 Abbreviations

ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
IETF	Internet Engineering Task Force
IM	Instant Messaging
MSRP	Message Session Relay Protocol
OMA	Open Mobile Alliance
SIP	Session Initiation Protocol
XDM	XML Document Management

4. Release Version Overview

4.1   Version 1.0 Functionality

This document outlines the Enabler Release Definition for SIMPLE IM version 1.0 and the respective conformance requirements for SIMPLE IM clients and servers implementations claiming compliance to it as defined by Open Mobile Alliance across the specification baseline.

Instant Messaging (IM) is a set of capabilities allowing exchange of Instant Messaging messages between users in near real-time, whether using mobile networks or fixed Internet connections. The SIMPLE IM enabler uses the IETF SIP protocol [RFC3261] with SIMPLE extensions. SIMPLE IM features are described in terms of actions taken by IM Clients and Servers. The SIMPLE IM enabler relies on common OMA enablers such as Presence [OMA_Pres], XDM [OMA_X1, OMA_X2], Device Management Services [OMA_DM] to provide complementary features and capabilities.

The SIMPLE IM enabler includes the following capabilities:

- – Session based IM capabilities:
  - – Requires a SIP session to be established before exchanging instant messages. Uses SIP to setup a session and MSRP to exchange instant messages between clients.
- – Pager mode messaging:
  - – Independent Instant messages can be sent and received without requiring a session between the users. Uses SIP MESSAGE to exchange instant messages.
- – Large message mode: Allows the exchange of arbitrarily large and independent instant messages. Uses MSRP and SIP to setup the MSRP session. Once the (large) instant message has been transferred from the sender to the receiver, the session is closed. Large message mode is a form of pager mode but makes use of a session oriented protocol.
- – Various content types, including:
  - – Text
  - – Audio clips/files
  - – Video clips/files
- – One-to-one and group conversations
- – Group conversation includes both:
  - – Predefined group: Created either by a service provider or a user
  - – Ad hoc group:
    - – Does not require prior creation of the group before sending messages
    - – Group created dynamically just prior to sending a message
- – File transfer to transfer files during an IM session
- – Deferred messaging to allow a user to retrieve his/her messages received when he/she was not online
- – Conversation history: To record a conversation on the server
- – Charging
- – Interaction with XML Document Management (XDM) for accessing:
  - – User's profile to create communities
  - – Group repository
  - – Contact lists, black and white lists
- – Interaction with the presence server for:
  - – Retrieving and update user/client online status
- – Other functionalities include:
  - – Operator-specific system messages
  - – Lawful Interception

5. Document Listing for SIMPLE IM

This section is normative.

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[OMA_IM_RD]	OMA-RD-IM-V1_0-20070816-C	Requirement Document for the SIMPLE IM Enabler
Architecture Document		
[OMA_IM_AD]	OMA-AD-SIMPLE_IM-V1_0-20080903-C	Architecture Document of the SIMPLE IM Enabler
Technical Specifications		
[OMA_IM_TS]	OMA-TS-SIMPLE_IM-V1_0-20110513-C	Specification that defines the SIMPLE IM control Plane and user plane protocol for the SIMPLE IM client and server.
[OMA_IM_XDM]	OMA-TS-IM_XDM-V1_0-20070816-C	Specification that defines the SIMPLE IM enabler conversation history and deferred messages data formats and XCAP application usages.
[OMA_IM_Charging]	OMA-TS-SIMPLE_IM_Charging-V1_0-20080903-C	Specification that defines charging for SIMPLE IM.
Supporting Files		
[OMA_IM_XDM_Schema]	OMA-SUP-XSD_im_service_settings-V1_0-20070816-C	IM XDM Schema for conversation history and deferred messages. Working file in schema directory: file: im:service-settings.xds path: http://www.openmobilealliance.org/tech/profiles/
[OMA_IM_SUP_AC]	OMA-SUP-AC_ap0008_SIMPLE_IM-V1_0-20070816-C	Description of the SIMPLE IM Application Characteristics. Working file in Application characteristics directory: file: ap0008_SIMPLE_IM-V1_0.txt path: http://www.openmobilealliance.org/tech/omna/dm-ac/
[OMA-SUP-XSD_im_hist_def_meta]	OMA-SUP-XSD_im_hist_def_metadata-V1_0-20070903-C	Description of XDM IM Conversation History and Deferred Message Metadata. Working file in schema directory: file: im_hist_def_metadata-V1_0.txt path: http://www.openmobilealliance.org/tech/profiles/

Table 1: Listing of Documents in SIMPLE IM Enabler

6. OMNA Considerations

The following service-id have been defined for the service description element in OMNA Presence service-description Registry:

-   org.openmobilealliance:IM-pager-mode 1.0
-   service org.openmobilealliance:IM-session
-   service org.openmobilealliance:File-Transfer

The XML schema for "im_service_settings" is available from OMNA OMA Profile Data page.

The APPID value identifying the SIMPLE IM enabler in the Application Characteristics file was reserved in OMNA Device Management (DM) Application Characteristic (AC) Registry.

7. Conformance Requirements Notation Details

This section is informative

The tables in following chapters use the following notation:

Item: Entry in this column MUST be a valid ScrItem according to [SCRRULES].

Feature/Application: Entry in this column SHOULD be a short descriptive label to the **Item** in question.

Status: Entry in this column MUST accurately reflect the architectural status of the **Item** in question.

- M means the **Item** is mandatory for the class

- O means the **Item** is optional for the class

- NA means the **Item** is not applicable for the class

Requirement: Expression in the column MUST be a valid TerminalExpression according to [SCRRULES] and it MUST accurately reflect the architectural requirement of the **Item** in question.

8. ERDEF for SIMPLE IM - Client Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-SIMPLE_IM-C-001	SIMPLE_IM Client	M	OMA_IM_TS:MCF
OMA-ERDEF-SIMPLE_IM-C-002	SIMPLE_IM Client	O	OMA_IM_TS:OCF
OMA-ERDEF-SIMPLE_IM-XDM-C-003	SIMPLE_IM XDM	M	OMA_IM_TS:MCF
OMA-ERDEF-SIMPLE_IM_XDM-C-004	SIMPLE_IM XDM	O	OMA_IM_XDM:OCF

Table 2: ERDEF for the SIMPLE IM Client-side Requirements

9. ERDEF for SIMPLE IM - Server Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-SIMPLE_IM-S-001	SIMPLE_IM server participating function	M	OMA_IM_TS:MSF
OMA-ERDEF-SIMPLE_IM-S-002	SIMPLE_IM server controlling function	M	OMA_IM_TS:MSF
OMA-ERDEF-SIMPLE_IM-S-003	SIMPLE_IM server participating function	O	OMA_IM_TS:OSF
OMA-ERDEF-SIMPLE_IM-S-004	SIMPLE_IM server controlling function	O	OMA_IM_TS:OSF
OMA-ERDEF-SIMPLE_IM-XDM-S-005	SIMPLE_IM XDM	M	OMA_IM_TS:MSF
OMA-ERDEF-SIMPLE_IM_XDM-S-006	SIMPLE_IM XDM	O	OMA_IM_XDM:OSF
OMA-ERDEF-SIMPLE_IM_CRG-S-007	SIMPLE IM Charging	O	OMA_IM_CRG:OSF

Table 3: ERDEF for SIMPLE IM Server-side Requirements

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 1.0 History

Document Identifier	Date	Sections	Description
Draft version: OMA-ERELD-Simple_IM-V1_0	04 Dec 2006	all	Initial version of the SIMPLE IM ERELD
	07 Dec 2006	all	Editorial clean-up prior to consistency review.
	15 Dec 2006	n/a	Final version of ERP for Consistency Review (review reports included).
	16 Jul 2007	2, 6 and 10	Editorial updates of the references, the documents identification and the requirements.
	19 Jul 2007	6	Editorial updates to the document listing
	20 Jul 2007	6	Editorials
Candidate Version: OMA-ERELD-SIMPLE_IM-V1_0	16 Aug 2007	All	Status changed to Candidate TP doc #: OMA-TP-2007-0301R02-INP_SIMPLE_IM_ERP_for_Candidate_approval
Draft version OMA-ERELD-SIMPLE_IM-V1_0	23 Jul 2008	6	Document listing updated
	12 Aug 2008	All	Used 2008 Template Added the contents of section 6 (OMNA Considerations) Added the missing document OMA-SUP-XSD_im_hist_def_metadata-V1_0-20070611-D in section 5and section 2.1 Removed section 7 "Minimum Functionality..." of the previous version of the ERELD since it is not included in the new template. Corrected the reference [OMA_IM_XDM_Schema] in section 2.1
	20 Aug 2008	All	Editorial update
Candidate Version: OMA-ERELD-SIMPLE_IM-V1_0	03 Sep 2008	All	Status changed to Candidate TP doc #: OMA-TP-2008-0330R01-INP_SIMPE_IM_V1_0_ERP_for_notification
Draft versions OMA-ERELD-SIMPLE_IM-V1_0	17 Aug 2009	5	Updated to 2009 Template Document listing updated
	01 Sep 2009	5	Document listing updated
	03 Mar 2010	All	2010 template Document Listing updated
Candidate Version: OMA-ERELD-SIMPLE_IM-V1_0	22 Mar 2010	All	Status changed to Candidate OMA-TP-2010-0136-INP_SIMPLE_IM_ERP_V1_0_For_Notification
Draft Version: OMA-ERELD-SIMPLE_IM-V1_0	27 Apr 2011	All	2011 template Document Listing updated
Candidate Version: OMA-ERELD-SIMPLE_IM-V1_0	13 May 2011	All	Status changed to Candidate by TP: OMA-TP-2011-0171-INP_SIMPLE_IM_V1_0_ERP_for_Notification