



# **Enabler Release Definition for Converged IP Messaging (CPM)**

Candidate Version 1.0 – 10 Mar 2009

---

**Open Mobile Alliance**  
OMA-ERELD-CPM-V1\_0-20090310-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.

© 2009 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
  - INFORMATIVE REFERENCES .....5
  - 2.2 .....5
- 3. TERMINOLOGY AND CONVENTIONS .....6
  - 3.1 CONVENTIONS .....6
  - DEFINITIONS.....6
  - 3.2 .....6
  - ABBREVIATIONS .....6
  - 3.3 .....6
- 4. RELEASE VERSION OVERVIEW .....7
  - 4.1 VERSION 1.0 FUNCTIONALITY .....7
- 5. DOCUMENT LISTING FOR CPM.....9
- 6. CONFORMANCE REQUIREMENTS NOTATION DETAILS .....10
- 7. ERDEF FOR CPM - CLIENT REQUIREMENTS .....11
- 8. ERDEF FOR CPM - SERVER REQUIREMENTS .....12
- APPENDIX A. CHANGE HISTORY (INFORMATIVE).....13
  - A.1 APPROVED VERSION HISTORY .....13
  - A.2 DRAFT/CANDIDATE VERSION <CURRENT VERSION> HISTORY.....13

# Tables

- Table 1: Listing of Documents in CPM Enabler .....9
- Table 2: ERDEF for CPM Client-side Requirements .....11
- Table 3: ERDEF for CPM Server-side Requirements.....12

# 1. Scope

The scope of this document is limited to the Enabler Release Definition of the Converged IP Messaging (CPM) Enabler according to OMA Release process and the Enabler Release specification baseline listed in section 5.

## 2. References

### 2.1 Normative References

- [OMA-CPM-AD] “Converged IP Messaging Architecture”, Open Mobile Alliance™, OMA-AD-CPM-V1\_0, URL:<http://www.openmobilealliance.org/>
- [OMA-CPM-RD] “Converged IP Messaging Requirements”, Open Mobile Alliance™, OMA-RD-CPM-V1\_0, URL:<http://www.openmobilealliance.org/>
- [OMA-CPM-SD] “Converged IP Messaging System Description”, Open Mobile Alliance™, OMA-TS-CPM\_System\_Description-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>
- [SCRRULES] “SCR Rules and Procedures”, Open Mobile Alliance™, OMA-ORG-SCR\_Rules\_and\_Procedures, URL:<http://www.openmobilealliance.org/>

### 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/>

## 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”, "Release Version Overview" and “Conformance Requirements Notation Details”, are normative, unless they are explicitly indicated to be informative.

The formal notation convention used in sections 7 and 8 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [SCRRULES].

### 3.2 Definitions

<b>CPM Ad-hoc Group</b>	See [OMA-CPM-RD].
<b>CPM Conversation</b>	See [OMA-CPM-RD].
<b>CPM Group Conversation</b>	See [OMA-CPM-RD].
<b>CPM Message</b>	See [OMA-CPM-RD].
<b>CPM Pre-defined Group</b>	See [OMA-CPM-RD].
<b>CPM Session</b>	See [OMA-CPM-RD].
<b>CPM Session History</b>	See [OMA-CPM-RD].
<b>Enabler Release</b>	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.
<b>Media</b>	See [OMA-CPM-RD].
<b>Media Type</b>	See [OMA-DICT].
<b>Minimum Functionality Description</b>	Description of the guaranteed features and functionality that will be enabled by implementing the minimum mandatory part of the Enabler Release.
<b>Non-CPM Communication Service</b>	See [OMA-CPM-RD].
<b>User Preferences Profile</b>	See [OMA-CPM-RD].

### 3.3 Abbreviations

<b>CPM</b>	Converged IP Messaging
<b>ERDEF</b>	Enabler Requirement Definition
<b>ERELED</b>	Enabler Release Definition
<b>MMS</b>	Multimedia Messaging Service
<b>OMA</b>	Open Mobile Alliance
<b>SD</b>	System Description
<b>SMS</b>	Short Message Service
<b>VAS</b>	Value Added Service

## 4. Release Version Overview

The CPM Enabler provides common building blocks, by reuse of existing blocks and by defining new ones, to allow for both the consolidation of present and the creation of future interpersonal interactive multimedia communication services which accommodate different user experiences such as deferred and Immediate Messaging, session-based messaging, and half duplex/full duplex conferencing.

CPM supports one-to-one, one-to-many personal communications, and also communication with Applications.

CPM enables the creation of services that allow users to:

- communicate without knowing what network access technology is being used,
- have parallel conversations,
- concurrently associate several devices with themselves,
- personalise their services by setting preferences to indicate, for example, which device(s) messages should be sent to,
- store any type of message and Media in the network, and
- seamlessly make the transition from legacy voice, video and messaging services such as MMS and SMS to CPM based services by providing interworking between CPM and these legacy services.

The efficient use of resources (e.g. radio bandwidth) by all of CPM's features will be taken into consideration in the design of the CPM Enabler.

### 4.1 Version 1.0 Functionality

This document provides the architecture for the CPM Enabler Version 1.0, which provides the following main functionalities:

- **Conversation Handling:** The CPM Enabler supports the following conversation requirements:
  - Immediate and Deferred Messaging (with temporary server storage of CPM Conversation and subsequent delivery; with mailbox storage, notification, and subsequent retrieval).
  - 1-1, 1-N, and 1-Application CPM Conversation with the selection of any kind of Media (single or multiple).
  - Add or remove Media at the invocation and any time during a CPM Conversation.
  - Add or remove users at the invocation and any time during a CPM Conversation.
  - Start a CPM Conversation by sending a CPM Message or establishing a CPM Session.
  - Change of user's device during a CPM Conversation without disrupting the conversation.
- **Media Support:** CPM supports discrete (text, images, video clip, audio clip, voice clip, binary files) and continuous (e.g. bidirectional voice, streaming video) Media.
- **Group Communication and Management:** The CPM Enabler supports the invocation of CPM Group Conversation for CPM Pre-defined and Ad-hoc Groups, which can be modified during CPM Conversations.
- **User Preferences:** The CPM enablers supports several user preferences profiles per user like Office, Home, Meeting etc.. Those are provided for the configuration of user's Communication Preferences and associate it to the User Preference Profile(s). They are also a way to provide for address/device/access point selection.
- **User Addressing and Multi-device environment (N:M scenario):** Aiming for best user experience in today's heterogeneous world for services, networks and devices, the CPM Enabler supports a multi-addresses and multi-devices environment. Therefore the CPM Enabler supports the following addressing scenarios:
  - Handling of single or multiple addresses on a single device.

- Handling of single or multiple addresses on multiple devices.
- Support for receiving different Media Types over different devices on a per user basis.
- Presence Support: The CPM Enabler provides a flexible interaction with the Presence Enabler. While CPM has to provide the needed support for presence, the invocation of the service itself does not require the presence service, and does not mandate an always-on condition for the CPM Users.
- Interworking with Non-CPM Communication Services: The CPM Enabler defines interworking with Non-CPM Communication Services.
- Network-based Storage: CPM aims to provide a consistent user experience and it therefore includes a network-based storage for the Media as well as the CPM Messages and CPM Session Histories (e.g. stored with contact, time, messages, and shared Media to allow filtering of histories to user's views). All these data can be synchronized to all the devices of the CPM User. The storage capabilities are subject to user preferences and service provider policies.
- Application Support: The CPM Enabler supports a generalized interface for VAS to communicate with.



## 5. Document Listing for CPM

This section is normative.

Doc Ref	Permanent Document Reference	Description
<b>Requirement Document</b>		
[OMA-CPM-RD]	OMA-RD-CPM-V1_0-20090310-C	Requirement Document for CPM Enabler
<b>Architecture Document</b>		
	<i>Not yet available</i>	
<b>Technical Specifications</b>		
	<i>Not yet available</i>	
<b>Supporting Files</b>		
	<i>Not yet available</i>	

**Table 1: Listing of Documents in CPM Enabler**

## 6. 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.
- 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.

## 7. ERDEF for CPM - Client Requirements

This section is normative.

Item	Feature / Application	Requirement
<i>Not yet available</i>		

**Table 2: ERDEF for CPM Client-side Requirements**

## 8. ERDEF for CPM - Server Requirements

This section is normative.

Item	Feature / Application	Requirement
<i>Not yet available</i>		

Table 3: ERDEF for CPM 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 Versions OMA-ERELED-CPM-V1_0	18 Apr 2008	All	Initial version.
	29 Dec 2008	5	Updated document listing
	23 Jan 2009	All	Updated document listing
	02 Feb 2009	All	Editorial clean-up prior to submission to TP for Notification
Candidate Versions OMA-ERELED-CPM-V1_0	10 Mar 2009	All	Status changed to Candidate by TP OMA-TP-2009-0097- INP_CPM_V1_0_RD_for_Candidate_re_Approval