



# **Enabler Release Definition for XML Document Management**

## **Candidate Version 1.0 – 10 Jan 2006**

---

**Open Mobile Alliance**  
OMA-ERELED-XDM-V1\_0-20060110-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.

© 2006 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. DESCRIPTION OF DIFFERENCES FROM PREVIOUS VERSION .....	8
6. DOCUMENT LISTING FOR XDM .....	9
7. MINIMUM FUNCTIONALITY DESCRIPTION FOR XDM .....	10
7.1 XDM SPECIFICATION .....	10
7.2 SHARED XDM SPECIFICATION .....	10
8. CONFORMANCE REQUIREMENTS NOTATION DETAILS .....	11
9. ERDEF FOR XDM - CLIENT REQUIREMENTS .....	12
10. ERDEF FOR XDM - SERVER REQUIREMENTS .....	13
11. ERDEF FOR XDM – AGGREGATION PROXY REQUIREMENTS .....	14
APPENDIX A. CHANGE HISTORY (INFORMATIVE) .....	15
A.1 APPROVED VERSION HISTORY .....	15
A.2 DRAFT/CANDIDATE VERSION 1.0 HISTORY .....	15

## Tables

Table 1: Listing of documents in XDM Enabler .....	9
Table 2: ERDEF for XDM Client-side Requirements .....	12
Table 3: ERDEF for XDM Server-side Requirements .....	13
Table 4: ERDEF for Aggregation Proxy Requirements .....	14

# 1. Scope

The scope of this document is limited to the Enabler Release Definition of XML Document Management (XDM) enabler according to OMA Release process and the Enabler Release specification baseline listed in section 6.

## 2. References

### 2.1 Normative References

- [IOPPROC] “OMA Interoperability Policy and Process”, Version 1.1, Open Mobile Alliance™, OMA-IOP-Process-V1\_1, <http://www.openmobilealliance.org/>
- [RFC2119] “Key words for use in RFCs to Indicate Requirement Levels”, S. Bradner, March 1997, <http://www.ietf.org/rfc/rfc2119.txt>
- [RFC2234] “Augmented BNF for Syntax Specifications: ABNF”. D. Crocker, Ed., P. Overell. November 1997, <http://www.ietf.org/rfc/rfc2234.txt>
- [XDM RD] “XLM Document Management Requirements”, Open Mobile Alliance™, OMA-RD-XDM-V1\_0, Version 1.0, <http://www.openmobilealliance.org/>
- [Shared\_XDM] “Shared XDM Specification”, Open Mobile Alliance™, OMA-TS-XDM\_Shared -V1\_0, Version 1.0, , <http://www.openmobilealliance.org/>
- [XDMSPEC] “XML Document Management (XDM) Specification”, Open Mobile Alliance™, OMA-TS-XDM\_Core-V1\_0, Version 1.0, <http://www.openmobilealliance.org/>

### 2.2 Informative References

- [PoC\_XDM] “PoC XDM Specification”, Open Mobile Alliance™, OMA-TS-XDM\_PoC-V1\_0, Version 1.0, <http://www.openmobilealliance.org/>
- [RLS\_XDM] “Resource List Service (RLS) XDM Specification”, Open Mobile Alliance™, OMA-TS-Presence\_SIMPLE\_RLS\_XDM-V1\_0, Version 1.0, <http://www.openmobilealliance.org/>
- [Presence\_XDM] “Presence XML Document Management Specification”, Version 1.0, Open Mobile Alliance™, OMA-TS-Presence\_SIMPLE\_XDM-V1\_0, Version 1.0, <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.

The formal notation convention used in sections 9 and 10 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [CREQ].

### 3.2 Definitions

<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>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>XCAP Application Usage</b>	Detailed information on the interaction of an application with an XCAP server. (Source: [XCAP])
<b>XCAP Server</b>	An HTTP server that understands how to follow the naming and validation constraints defined in this specification. (Source: [XCAP])
<b>XCAP Client</b>	An HTTP client that understands how to follow the naming and validation constraints defined in this specification. (Source: [XCAP])

### 3.3 Abbreviations

<b>ERDEF</b>	Enabler Requirement Definition
<b>ERELED</b>	Enabler Release Definition
<b>IETF</b>	Internet Engineering Task Force
<b>IM</b>	Instant Messaging
<b>OMA</b>	Open Mobile Alliance
<b>XCAP</b>	XML Configuration Access Protocol
<b>XDM</b>	XML Document Management
<b>XML</b>	Extensible Markup Language
<b>URI</b>	Uniform Resource Identifier
<b>UE</b>	User Equipment
<b>AS</b>	Application Server

## 4. Introduction

This document outlines the Enabler Release Definition for the XML Document Management (XDM) enabler and the respective conformance requirements for clients and servers implementing claiming compliance to it as defined by Open Mobile Alliance across the specification baseline.

The XML Document Management defines a common mechanism that makes user-specific service-related information accessible to the service enablers (e.g., PoC, IM) that need them. Such information is expected to be stored in the network where it can be located, accessed and manipulated (created, changed, deleted). XDM specifies how such information will be defined in well-structured XML documents, as well as the common protocol for access and manipulation of such XML documents, by authorized principals. The XML Configuration Access Protocol (XCAP) [XCAP], as defined by IETF, has been chosen as the common XML Document Management protocol.

The XDM Specification [XDMSPEC] defines two main features:

- The use of the common protocol, XML Configuration Access Protocol (XCAP), by which principals can store and manipulate their service-related data, stored in a network as XML documents.
- The SIP subscription/notification mechanism by which principals can be notified of changes to such documents

Documents accessed and manipulated via XCAP are stored in (logical) repositories in the network, called generically XML Document Management Servers (XDMS), each repository being associated with a functional entity which uses the data in its associated repository to perform its functions. For example, a POC server accesses a POC XDMS to obtain a particular type of user document, a POC Group document, which provides the member list for a POC group session, and uses this information to invite such members for a POC session.

The Shared XDM Specification [Shared\_XDM] specifies a specific type of repository, called a Shared XDMS, which stores documents which can be reused by other enablers. For this release, one such document, the URI List, has been identified. This is a convenient way for a principal to group together a number of end users (e.g., “Friends” or “Family) or other resources, where such a list is expected to be reused by a number of different enablers. For example, a POC Group member list can include a reference to a URI list as one of its entries.

Due to the reusable nature of the XDM enabler, there will be interactions with other service enablers, and therefore, the architectural design of the XDM enabler (see [XDMAD]) accommodates the needs of those enablers.

## 5. Description of Differences from Previous Version

None. No previous version.



## 6. Document Listing for XDM

This section is normative.

Doc Ref	Permanent Document Reference	Description
<b>Requirement Document</b>		
[XDM_RD]	OMA-RD-XDM-V1_0-20050317-C	Requirement Document for XDM Enabler
<b>Architecture Document</b>		
[XDM_AD]	OMA-AD-XDM-V1_0-20060110-C	Architecture Document for XDM Enabler
<b>Technical Specifications</b>		
[XDMSPEC]	OMA-TS-XDM_Core-V1_0-20060110-C	Specification that defines common protocols, data access conventions, common data application usages and two entities that are needed to provide XDM services to other enablers.
[Shared_XDM]	OMA-TS-XDM_Shared-V1_0-20060110-C	Specification that describes the data format and XCAP application usage for the shared document, URI List, which can be used by all OMA enablers
<b>Supporting Files</b>		
N/A		

**Table 1: Listing of documents in XDM Enabler**

## 7. Minimum Functionality Description for XDM

This section is informative.

### 7.1 XDM Specification

The XDM Specification [XDMSPEC] defines two main features:

1. This specification defines the common protocol for access and manipulation of such XML documents by authorized principals. This specification reuses the IETF XML Configuration Access Protocol (XCAP), which defines:
  - A convention for describing elements and attributes of an XML document as a HTTP resource, i.e., accessible via an HTTP URI
  - A technique for using HTTP GET, PUT and DELETE methods for various document manipulation operations (e.g., retrieving/adding/deleting elements/attributes, etc.)
  - The concept and structure of an XCAP Application Usage by which service or enabler specific documents can be described
2. A technique by which changes to such XML documents can be conveyed to an XCAP Client. This reuses an IETF-defined SIP event package by which an XDM Client subscribes to changes to all documents that it owns.

### 7.2 Shared XDM Specification

This specification describes the data format and XCAP Application Usage for the shared document, URI List, which can be used by all OMA enablers.

## 8. Conformance Requirements Notation Details

This section is informative

The tables in following chapters use the following notation:

<b>Item:</b>	Entry in this column <b>MUST</b> be a valid ScrItem according to [IOPPROC].
<b>Feature/Application:</b>	Entry in this column <b>SHOULD</b> be a short descriptive label to the <b>Item</b> in question.
<b>Status:</b>	Entry in this column <b>MUST</b> accurately reflect the architectural status of the <b>Item</b> in question. <ul style="list-style-type: none"><li>• M means the <b>Item</b> is mandatory for the class</li><li>• O means the <b>Item</b> is optional for the class</li><li>• NA means the <b>Item</b> is not applicable for the class</li></ul>
<b>Requirement:</b>	Expression in the column <b>MUST</b> be a valid TerminalExpression according to [IOPPROC] and it <b>MUST</b> accurately reflect the architectural requirement of the <b>Item</b> in question.

## 9. ERDEF for XDM - Client Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-XDM-C-001	XCAP protocol, common XCAP application usages and manipulation of shared URI Lists	M	XDMSPEC: MCF AND Shared_XDM: MCF

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

## 10.ERDEF for XDM - Server Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-XDM-S-002	Shared XDMS functions	M	Shared_XDM: MSF

**Table 3: ERDEF for XDM Server-side Requirements**

## 11.ERDEF for XDM – Aggregation Proxy Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-XDM-S-001	XCAP protocol and common XCAP Application Usages	M	XDMSPEC: MSF

**Table 4: ERDEF for Aggregation Proxy 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-ERELED_XDM-V1_0	29 Jan 2005	All	Updates from Consistency Review
Candidate Version OMA-ERELED-XDM-V1_0	04 Feb 2005	n/a	Status changed to Candidate by TP: OMA-TP-2005-0060-XDM_1_0--for-candidate-approval
Candidate Version OMA-ERELED-XDM-V1_0	17 Mar 2005	RD AD	CRs PAG-2004-0835R03 and TP-2005-0095 implemented. CR TP-2005-0095 implemented.
Candidate Version OMA-ERELED-XDM-V1_0	15 Apr 2005	XDM Core XDM Shared	CRs 2005-0191R01, 0279R02, 0286R02, 0291R01, 0302. CRs 2005-0192R01.
Candidate Version OMA-ERELED-XDM-V1_0	17 May 2005	XDM Core	CRs 2005-0157, 0312 and 0315R1.
Candidate Version OMA-ERELED-XDM-V1_0	31 May	XDM Core	CR 2005-0331R02
Candidate Version OMA-ERELED-XDM-V1_0	13 Jun	XDM Core	CR 2005-0334R01
Candidate Version OMA-ERELED-XDM-V1_0	28 Jun 2005	XDM Core  XDM Shared  AD XDM	CR 2005-0130R03 CR 2005-0361R01 CR 2005-0323R03 CR 2005-0364 CR 2005-0363
Candidate Version OMA-ERELED-XDM-V1_0	05 Oct 2005	AD XDM          XDM Core          XDM Shared	CR 2005-0432R01 CR 2005-0477 CR 2005-0490 CR 2005-0494 CR 2005-0402 CR 2005-0250 CR 2005-0384R03 CR 2005-0456R01 CR 2005-0417R02 CR 2005-0476 CR 2005-0391R05 CR 2005-0458 CR 2005-0478R04 CR 2005-0502 CR 2005-0469
Candidate Version OMA-ERELED-XDM-V1_0	03 Nov 2005	XDM Core	Incorporated CR 2005-0531 Incorporated CR 2005-0532R01 The font colour of the text "403 Forbidden" section 6.5 was changed from blue to black.
Candidate Version OMA-ERELED-XDM-V1_0	22 Nov 2005	XDM Core       XDM Shared	Incorporated CR 2005-0578 Incorporated CR 2005-0467R02 Section B.5, 2 <sup>nd</sup> example a semicolon was added after <i>aid="org.openmobilealliance.poc-groups"</i> Incorporated CR 2005-0569R01 Incorporated CR 2005-0527R02

Document Identifier	Date	Sections	Description
Candidate Version OMA-ERELED-XDM-V1_0	10 Jan 2006	AD XDM	Incorporated Cr OMA-PAG-2005-0637
			Incorporated CR OMA-PAG-2005-0677
		XDM Core	Incorporated CR OMA-PAG-2005-0579R01
			Incorporated CR OMA-PAG-2005-0597R02
			Incorporated CR OMA-PAG-2005-0604
			Incorporated CR OMA-PAG-2005-0607
			Incorporated CR OMA-PAG-2005-0636
			Incorporated CR OMA-PAG-2005-0662
			Incorporated CR OMA-PAG-2005-0655R01
		XDM Shared	Incorporated CR OMA-PAG-2005-0608
			Incorporated CR OMA-PAG-2005-0627
			Incorporated CR OMA-PAG-2005-0628
			Incorporated CR OMA-PAG-2005-0676
		ERELED	New template applied. Sections 5 and 6 changed.