Enabler Release Definition for XML Document Management

Candidate Version 1.0 – 15 Apr 2005

Open Mobile Alliance

OMA-ERELD-XDM-V1_0-20050415-C

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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 5.

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 8 and 9 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [CREQ].

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

3.3 Abbreviations

ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
IETF	Internet Engineering Task Force
IM	Instant Messaging
OMA	Open Mobile Alliance
XCAP	XML Configuration Access Protocol
XDM	XML Document Management
XML	Extensible Markup Language
URI	Uniform Resource Identifier
UE	User Equipment
AS	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. Enabler Release Specification Baseline

This section is normative.

The following specifications comprise the XDM Enabler Release:

[XDMSPEC]	OMA-TS-XDM_Core-V1_0
[Shared_XDM]	OMA-TS-XDM_Shared-V1_0
[XDM_RD]	OMA-RD-XDM-V1_0
[XDM_AD]	OMA-AD-XDM-V1_0

6. Minimum Functionality Description for XDM

This section is informative.

6.1 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.

6.2 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.

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 [IOPPROC].

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 [IOPPROC] and it MUST accurately reflect the architectural requirement of the **Item** in question.

8. 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 1 ERDEF for XDM Client-side Requirements

9. 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 2 ERDEF for XDM Server-side Requirements

10.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 3 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-ERELD_XDM-V1_0	29 Jan 2005	All	Updates from Consistency Review
Candidate Version OMA-ERELD-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-ERELD-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-ERELD-XDM-V1_0	15 Apr 2005	XDM Core XDM Shared	CRs 2005-0191R01, 0279R02, 0286R02, 0291R01, 0302. CRs 2005-0192R01.