Enabler Release Definition for XML Document Management

Candidate Version 2.1 – 28 Jul 2009

Open Mobile Alliance

OMA-ERELD-XDM-V2_1-20090728-C

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Figures

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Tables

1. Scope

The scope of this document is limited to the Enabler Release Definition of XML Document Management Version 2.1 according to OMA Release process and the Enabler Release specification baseline listed in section 5.

2. References

2.1 Normative References

[RFC2119]	"Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL: http://www.ietf.org/rfc/rfc2119.txt
[RFC4825]	IETF RFC 4825 "The Extensible Markup Language (XML) Configuration Access protocol (XCAP)", J. Rosenberg, May 2007, URL: http://www.ietf.org/rfc/rfc4825.txt
[SCRRULES]	"SCR Rules and Procedures", Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures, URL: http://www.openmobilealliance.org/
[XDM_AC]	"XDM Application Characteristics file of XDM V2.0", Version 1.0, Open Mobile Alliance™, OMA-SUP-AC_ap0007_xdm-v1_0, URL: http://www.openmobilealliance.org
[XDM_AD]	"XML Document Management Architecture", Version 2.1, Open Mobile Alliance™, OMA-AD-XDM-V2_1, URL: http://www.openmobilealliance.org/
[XDM_appusage]	"XML Schema Definition : XDM Resource List Elements – appusage", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_rsrclist_appusage-V1_0, URL : http://www.openmobilealliance.org/
[XDM_Core]	"XML Document Management (XDM) Specification" Version 2.0, Open Mobile Alliance™, OMA-TS-XDM_Core-V2_0, URL: http://www.openmobilealliance.org/
[XDM_ext]	"XML Schema Definition: XDM Extensions", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_extensions-V1_0, URL: http://www.openmobilealliance.org/
[XDM_Group]	"Shared Group XDM Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-XDM_Shared_Group-V1_0, URL: http://www.openmobilealliance.org/
[XDM_List]	"Shared List XDM Specification ", Version 2.0, Open Mobile Alliance™, OMA-TS-XDM_Shared_List-V2_0, URL: http://www.openmobilealliance.org/
[XDM_MO]	"OMA Management Object for XML Document Management", Version 2.0, Open Mobile Alliance™, OMA-TS-XDM_MO-V2_0, URL: http://www.openmobilealliance.org/
[XDM_Policy]	"Shared Policy XDM Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-XDM_Shared_Policy-V1_0, URL: http://www.openmobilealliance.org/
[XDM_Profile]	"Shared Profile XDM Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-XDM_Shared_Profile-V1_0, URL: http://www.openmobilealliance.org/
[XDM_RD]	"XLM Document Management Requirements" Version 2.1, Open Mobile Alliance™, OMA-RD-XDM-V2_1, URL: http://www.openmobilealliance.org/
[XSD_appusage]	"XML Schema Definition : XDM Resource List Elements – appusage", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_rsrclist_appusage-V1_0, URL : http://www.openmobilealliance.org/
[XSD_commPol]	"XML Schema Definition: "XDM – Common Policy", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_commonPolicy-V1_0, URL: http://www.openmobilealliance.org/
[XSD_Search]	"XML Schema Definition: "XDM – Search", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_search-V2_0,

URL: http://www.openmobilealliance.org/

[XSD_userProf]	"XML Schema Definition: XDM User Profile", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_userProfile-V1_0, URL: http://www.openmobilealliance.org/
[XSD_uriusage]	"XML Schema Definition :XDM Resource List Elements – uriusage", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_rsrclist_uriusage-V1_0, URL: http://www.openmobilealliance.org/
[XSD_xcapDir]	"XML Schema Definition : XDM – XCAP Directory", Version 1.0.1, Open Mobile Alliance™, OMA-SUP-XSD_xdm_xcapDirectory-V1_0_1, URL: http://www.openmobilealliance.org/
[XSD_xcapErr]	"XML Schema Definition : XDM – XCAP Error", Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_xcapError-V1_0, URL: 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/

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 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

Application Usage	Detailed information on the interaction of an application with an XCAP server. (Source: [RFC4825])
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.
Principal	An entity that has an identity, that is capable of providing consent and other data, and to which authenticated actions are done on its behalf. Examples of principals include an individual user, a group of individuals, a corporation, service enablers/applications, system entities and other legal entities. (Source: [OMADICT])
XCAP Server	An HTTP server that understands how to follow the naming and validation constraints defined in this specification. (Source: [RFC4825])

3.3   Abbreviations

CPM	Converged IP Messaging
ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
IM	Instant Messaging
OMA	Open Mobile Alliance
OMNA	Open Mobile Naming Authority
PoC	Push to Talk over Cellular
XCAP	XML Configuration Access Protocol
XDM	XML Document Management
XML	Extensible Markup Language
URI	Uniform Resource Identifier

4. Release Version Overview

4.1 Version 1.1 Functionality

The XML Document Management (XDM) enabler defines a common mechanism that makes user-specific service-related information accessible to the service enablers that need it. XDM specifies how such information is represented in well-structured XML documents, as well as the common protocol for access and manipulation (e.g. created, changed, deleted, etc.) of such XML documents.

The XDM Specification [XDM_Core] defines the features of the XDM enabler, which include the following:

- The common protocol, XML Configuration Access Protocol (XCAP) [RFC4825], by which Principals can store and manipulate their service-related data, stored in the network as XML documents.

Documents accessed and manipulated via XCAP are stored in logical repositories in the network, called XML Document Management Servers (XDMS). Each repository may be associated with a functional entity which uses its data to perform its functions.

Each XML document stored in an XDMS is described as an Application Usage, which enables applications to use the document via XCAP. The XDM enabler describes Application Usages which can be reused by multiple enablers and are stored in logical entities called Shared XDMSs. The documents defined by the XDM V1.1 enabler are as follows:

- URI List and Group Usage List documents stored in the Shared XDMS.

4.2 Version 2.0 Functionality

The XDM V2.0 enabler defines new functionality that extends XDM to support the OMA SIMPLE Instant Messaging (IM) V1.0 and Push-to-talk over Cellular (PoC) V2.0 enablers.

To accommodate the needs of these enablers, the following functionality is added in XDM V2.0:

- Search for information in documents stored in an XDMS;

- Network to Network Interface to enable search and retrieval of information across multiple domains; and

- The SIP subscription/notification mechanism by which Principals can be notified of changes to XML documents.

XDM V2.0 inherits the Shared XDMS from XDM V1.0, but renames it as the Shared List XDMS [XDM_List] to accommodate several new documents that are stored in separate Shared XDMS logical entities:

- Group document stored in the Shared Group XDMS [XDM_Group];

- User Access Policy document stored in the Shared Policy XDMS [XDM_Policy]; and

- User Profile document stored in the Shared Profile XDMS [XDM_Profile].

The Group and User Access Policy document structures are based on those of the PoC Group and PoC User Access Policy documents [PoC_XDM], respectively. The XDM V2.0 enabler defines how to handle backwards compatibility with the PoC V1.0 enabler when the Shared Group XDMS and Shared Policy XDMS are introduced in the network.

4.3 Version 2.1 Functionality

The XDM V2.1 enabler defines new functionality that extends XDM to support the OMA Converged IP Messaging (CPM), OMA Converged Address Book (CAB) and OMA PoC 2.1 (Push to Talk over Cellular) enablers.

To accommodate the needs of this enabler, the following functionality is added in XDM V2.1:

- Access permissions to define which Principals have rights to perform XDM functions to an XML document;

- Document history management in order to capture some (or all) changes applied to an XML document;

- Forwarding of an XML document by a Principal with appropriate permissions to other principals

- User Preferences Profile document stored in an XDMS; and

5. Document Listing for XML Document Management

This section is normative.

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[XDM_RD]	OMA-RD-XDM-V2_1-20090728-C	Requirement Document for XDM Enabler
Architecture Document		
Technical Specifications		

Table 1: Listing of documents in XDM Enabler

6. OMNA Considerations

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.

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 XDM - Client Requirements

This section is normative.

Item	Feature / Application	Requirement

Table 2: ERDEF for XDM Client-side Requirements

9.　ERDEF for XDM - Server Requirements

This section is normative.

Item	Feature / Application	Requirement

Table 3: ERDEF for XDM 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 2.1 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ERELD-XDM-V2_1	22 Oct 2008	n/a	Baseline document (OMA-PAG-2008-0666R01)

	28 Oct 2008	5	Changes to:
			  OMA-RD-XDM-V2_1
			  Section 5 of the ERELD updated to reflect this.

	26 Feb 2009	5	Changes to:
			  OMA-RD-XDM-V2_1
			  Section 5 of the ERELD updated to reflect this.

	27 Feb 2009	4.3	Incorporated CR: OMA-PAG-2009-0061

	03 Mar 2009	5	Application of the 2009 template to:
			  OMA-RD-XDM-V2_1
			  Section 5 of the ERELD updated to reflect this.

	06 Mar 2009	2.1	Incorporated CR: OMA-PAG-2008-0872
Candidate Version OMA-ERELD-XDM-V2_1	31 Mar 2009	n/a	Status changed to Candidate by TP TP ref # OMA-TP-2009-0115-INP_XDM_V2_1_RD_for_Candidate_Approval
Draft Versions OMA-ERELD-XDM-V2_1	23 Apr 2009	2.2, 3.3, 5	Incorporated CR: OMA-PAG-2008-0824 Section 5 of the ERELD updated
	14 May 2009	5	Section 5 of the ERELD updated
	16 Jun 2009	2.1, 4.3, 5	Section 5 of the ERELD updated and changes (agreed 07 July PAG CC)
	08 Jul 2009	5	Section 5 of the ERELD updated
Candidate Version OMA-ERELD-XDM-V2_1	28 Jul 2009	n/a	Status changed to Candidate by TP TP ref # OMA-TP-2009-0322-INP_XDM_V2_1_RD_for_Candidate_re_approval