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.

© 2008 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.......................................................................................................................... 5

2. REFERENCES ...................................................................................................................... 6
   2.1 NORMATIVE REFERENCES............................................................................................. 6
   2.2 INFORMATIVE REFERENCES.......................................................................................... 6

3. TERMINOLOGY AND CONVENTIONS ............................................................................. 7
   3.1 CONVENTIONS.................................................................................................................. 7
   3.2 DEFINITIONS...................................................................................................................... 7
   3.3 ABBREVIATIONS................................................................................................................. 7

4. INTRODUCTION .................................................................................................................... 9

5. SHARED PROFILE XDM APPLICATION USAGES ............................................................. 10
   5.1 USER PROFILE ............................................................................................................... 10
      5.1.1 Structure .................................................................................................................... 10
      5.1.2 Application Unique ID .............................................................................................. 11
      5.1.3 XML Schema ........................................................................................................... 11
      5.1.4 Default Namespace ................................................................................................... 11
      5.1.5 MIME Type .............................................................................................................. 11
      5.1.6 Validation constraints .............................................................................................. 11
      5.1.7 Data Semantics ........................................................................................................ 11
      5.1.8 Naming conventions ............................................................................................... 11
      5.1.9 Global documents .................................................................................................... 11
      5.1.10 Resource interdependencies .................................................................................. 12
      5.1.11 Authorization policies ........................................................................................... 12
      5.1.12 Search capabilities ................................................................................................. 12
   5.2 LOCKED USER PROFILE ............................................................................................... 13
      5.2.1 Structure .................................................................................................................... 13
      5.2.2 Application Unique ID .............................................................................................. 13
      5.2.3 XML Schema ........................................................................................................... 13
      5.2.4 Default Namespace ................................................................................................... 13
      5.2.5 MIME Type .............................................................................................................. 13
      5.2.6 Validation constraints .............................................................................................. 13
      5.2.7 Data Semantics ........................................................................................................ 13
      5.2.8 Naming conventions ............................................................................................... 13
      5.2.9 Global documents .................................................................................................... 13
      5.2.10 Resource interdependencies .................................................................................. 13
      5.2.11 Authorization policies ........................................................................................... 13

6. SUBSCRIBING TO CHANGES IN THE XML DOCUMENTS ............................................... 15

APPENDIX A. CHANGE HISTORY (INFORMATIVE) ................................................................. 16
   A.1 APPROVED VERSION HISTORY ..................................................................................... 16
   A.2 DRAFT/CANDIDATE VERSION 1.0 HISTORY .................................................................. 16

APPENDIX B. STATIC CONFORMANCE REQUIREMENTS (NORMATIVE) ......................... 18
   B.1 SHARED PROFILE XDM APPLICATION USAGES (SERVER) ......................................... 18
   B.2 SHARED PROFILE XDM APPLICATION USAGES (CLIENT) ........................................ 19

APPENDIX C. EXAMPLES (INFORMATIVE) .......................................................................... 21
   C.1 OBTAINING A USER PROFILE DOCUMENT .................................................................. 21
   C.2 SEARCH IN THE HOME DOMAIN USER PROFILE XDMS ........................................ 22

© 2008 Open Mobile Alliance Ltd. All Rights Reserved.
Used with the permission of the Open Mobile Alliance Ltd. under the terms as stated in this document.

[OMA-Template-Spec-20080101]
Figures

Figure C.1- XDMC obtains a particular User Profile document .................................................................21
Figure C.2- XDMC performs a search in Shared Profile XDMS in its home domain ...........................................23
1. Scope

This specification describes the data format and Application Usage for the User Profile document, which can be used by all OMA enablers.

The User Profile document contains user information that is stored in the network. Typical ways to use it are through search queries to discover communication partners (e.g., chat) or through requests to obtain information about a specific user.
2. References

2.1 Normative References


[XSD_userProfile] “XML Schema Definition: XDM User Profile”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_xdm_userProfile-V1_0, URL: http://www.openmobilealliance.org/

2.2 Informative References

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.

3.2 Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Server</td>
<td>A functional entity that implements the service logic for SIP Sessions (e.g. PoC Server or IM Server).</td>
</tr>
<tr>
<td>Application Unique ID</td>
<td>A unique identifier within the namespace of Application Unique IDs created by this specification that differentiates XCAP Resources accessed by one application from XCAP Resources accessed by another. (Source: [RFC4825])</td>
</tr>
<tr>
<td>Application Usage</td>
<td>Detailed information on the interaction of an application with an XCAP Server. (Source: [RFC4825])</td>
</tr>
<tr>
<td>Document Selector</td>
<td>A sequence of path segments, with each segment being separated by a ‘/’, that identify the XML document within an XCAP Root that is being selected. (Source: [RFC4825])</td>
</tr>
<tr>
<td>Document URI</td>
<td>The HTTP URI containing the XCAP Root and Document Selector, resulting in the selection of a specific document. (Source: [RFC4825])</td>
</tr>
<tr>
<td>Global Document</td>
<td>A document placed under the Global Tree that applies to all users of that Application Usage.</td>
</tr>
<tr>
<td>Global Tree</td>
<td>A URI that represents the parent for all Global Documents for a particular Application Usage within a particular XCAP Root. (Source: [RFC4825])</td>
</tr>
<tr>
<td>Service Provider</td>
<td>A legal or administrative entity that provides a service to its clients or customers. Typically it is (but is not restricted to) a network operator.</td>
</tr>
<tr>
<td>User</td>
<td>A User is any entity that uses the described features through the User Equipment.</td>
</tr>
<tr>
<td>User Address</td>
<td>A User Address identifies a User. The User Address can be used by one User to request communication with other Users.</td>
</tr>
<tr>
<td>Users Tree</td>
<td>A URI that represents the parent for all user documents for a particular Application Usage within a particular XCAP Root.</td>
</tr>
<tr>
<td>XCAP Resource</td>
<td>An HTTP resource representing an XML document, an element within an XML document, or an attribute of an element within an XML document that follows the naming and validation constraints of XCAP. (Source: [RFC4825])</td>
</tr>
<tr>
<td>XCAP Root</td>
<td>A context that includes all of the documents across all Application Usages and users that are managed by a server. (Source: [RFC4825])</td>
</tr>
<tr>
<td>XCAP Server</td>
<td>An HTTP server that understands how to follow the naming and validation constraints defined in this specification. (Source: [RFC4825])</td>
</tr>
<tr>
<td>XCAP User Identifier</td>
<td>The XUI is a string, valid as a path element in an HTTP URI, that is associated with each user served by the XCAP Server. (Source: [RFC4825])</td>
</tr>
</tbody>
</table>

3.3 Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABNF</td>
<td>Augmented Backus-Naur Form</td>
</tr>
<tr>
<td>AUID</td>
<td>Application Unique ID</td>
</tr>
<tr>
<td>HTTP</td>
<td>Hypertext Transfer Protocol</td>
</tr>
<tr>
<td>IETF</td>
<td>Internet Engineering Task Force</td>
</tr>
<tr>
<td>IM</td>
<td>Instant Messaging</td>
</tr>
<tr>
<td>MIME</td>
<td>Multipurpose Internet Mail Extensions</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>OMA</td>
<td>Open Mobile Alliance</td>
</tr>
<tr>
<td>SCR</td>
<td>Static Conformance Requirements</td>
</tr>
<tr>
<td>SIP</td>
<td>Session Initiation Protocol</td>
</tr>
<tr>
<td>URI</td>
<td>Uniform Resource Identifier</td>
</tr>
<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
</tr>
<tr>
<td>XCAP</td>
<td>XML Configuration Access Protocol</td>
</tr>
<tr>
<td>XDM</td>
<td>XML Document Management</td>
</tr>
<tr>
<td>XDMC</td>
<td>XDM Client</td>
</tr>
<tr>
<td>XDMS</td>
<td>XDM Server</td>
</tr>
<tr>
<td>XML</td>
<td>Extensible Markup Language</td>
</tr>
<tr>
<td>XUI</td>
<td>XCAP User Identifier</td>
</tr>
</tbody>
</table>
4. Introduction

This specification provides the Application Usage for the User Profile document, which can be searched by Users and Application Servers to find the User Address (and possibly other information) about Users matching a certain criteria.

The Shared Profile XDMS (see [XDM_AD]) is the logical repository for User Profile documents. The common protocol specified in [XDM_C] is used for access and manipulation of such documents by authorized principals.
5. Shared Profile XDM Application Usages

5.1 User Profile

5.1.1 Structure

The User Profile document SHALL conform to the structure of the “user-profile” document described in this subclause. The schema definition is provided in section 5.1.3.

The <user-profile> element:

a) SHALL include a “uri” attribute that contains the XUI of the User for whom this User Profile is intended;

b) MAY include any other attribute for the purposes of extensibility

c) MAY include a <communication-addresses> element, containing a list of elements representing the communication associated with the User. These elements MAY be of the following kind:
   1. SIP URI as defined in [RFC3261];
   2. TEL URI as defined in [RFC3966];
   3. E.164 number;
   4. email address.

d) MAY include a <display-name> element, containing a suggested name to display in user interfaces (e.g. in the IM buddy list);

e) MAY include a <birth-date> element, containing the birth date of the User;

f) MAY include a <name> element containing the human identity of the User. It MAY contain:
   1. a <given-name> element;
   2. a <family-name> element;
   3. a <middle-name> element;
   4. a <name-suffix> element;
   5. a <name-prefix> element;
   6. any other elements from any other namespaces for the purpose of extensibility.

g) MAY include an <address> element containing a postal address of the User. It MAY contain:
   1. a <country> element, corresponding to the country in which this address is located;
   2. a <region> element, corresponding to the region (e.g. state, province…) in which this address is located;
   3. a <locality> element, which represents the locality in which this address is located (e.g. village, city, town…);
   4. an <area> element, which represents the subdivision of the locality in which this address is located (e.g. neighbourhood, suburb, district…);
   5. a <street-name> element, which represents the name of the street in which this address is located;
   6. a <street-number> element, which represents the house number in the street in which this address is located;
7. a <postal-code> element, which represents the code for postal delivery (e.g. ZIP code) for this address;
8. any other elements from any other namespaces for the purpose of extensibility.

h) MAY include a <gender> element, containing the gender of the User;
i) MAY include a <freetext> element containing a description of the User;
j) MAY include a <communication-types> element containing a list of the communication abilities of the User for human consumption;
k) MAY include a <hobbies> element listing the User's hobbies;
l) MAY include a <favourite-links> element listing the User's favourite links;
m) MAY include any other elements from any other namespaces for the purposes of extensibility.

5.1.2 Application Unique ID
The AUID SHALL be “org.openmobilealliance.user-profile”.

5.1.3 XML Schema
The “user-profile” XML document SHALL be composed according to the XML schema described in [XSD_userProfile].

5.1.4 Default Namespace
The default namespace used in expanding URIs SHALL be “urn:oma:xml:xdm:user-profile” defined in Section 5.1.3.

5.1.5 MIME Type
The MIME type for the User Profile document SHALL be “application/vnd.oma.user-profile+xml”.

5.1.6 Validation constraints
The User Profile document SHALL conform to the XML Schema described in subclause 5.1.3 “XML Schema”, with the clarifications given in this sub-clause.

The value of the “uri” attribute of the <user-profile> element SHALL be the same as the XUI value of the Document URI for the User Profile document. If not, the XDMS SHALL return an HTTP “409 Conflict” response as described in [RFC4825], including the <constraint-failure> error element. If included, the “phrase” attribute SHOULD be set to “Wrong User Profile URI”.

5.1.7 Data Semantics
The value of the “uri” attribute in the <user-profile> element SHALL represent a valid User Address for communication, as well as an XUI that can be used as a path segment to retrieve the User Profile document.

The <country> element SHALL be used to indicate the country using a two-letter “Alpha-2” format, as specified in [ISO3166-1].

5.1.8 Naming conventions
The name of User Profile document SHALL be “user-profile”.

5.1.9 Global documents
This Application Usage defines no Global Documents.
5.1.10 Resource interdependencies

This Application Usage defines no additional resource interdependencies.

5.1.11 Authorization policies

The authorization policies for manipulating a User Profile SHALL conform to those described in [XDM_Core] Section 5.1.5 “Authorization” with the following exceptions:

1) Principals SHALL have permission to perform retrieve operations of any User Profile document in the Users Tree;
2) Principals SHALL have permission to perform subscribing to changes operations of any User Profile document in the Users Tree.

Principals SHALL have permission to perform search operations of any collection of User Profile documents in the Users Tree.

5.1.12 Search capabilities

The User Profile Application Usage MAY support search. If the search feature is supported, it SHALL be possible to search for contacts based on the data stored in User Profiles, and the following rules apply:

The Shared Profile XDMS SHALL support a collection “org.openmobilealliance.user-profile/users/”, a collection “org.openmobilealliance.user-profile/users/[XUI]/” and a collection “org.openmobilealliance.user-profile/users/[XUI]/<document name>” as defined in [XDM_Core].

The basic XQuery expression [XDM_Core] supported by the Shared Profile XDMS for this Application Usage SHALL be as follows:

```xquery
xquery version "1.0";
declare default element namespace "urn:oma:xml:xdm:user-profile";

for $g in collection([Data_Source])/user-profiles/user-profile
where [Condition]
  return <user-profile>{$g/@uri} {$g/display-name} </user-profile>
```

where:

[Data_Source] represents collection that SHALL be searched. In case that the value:
- “org.openmobilealliance.user-profile/users/” is used, the Search SHALL be executed over all User Profile documents stored in the Shared Profile XDMS.
- “org.openmobilealliance.user-profile/users/[XUI]/” is used, the Search SHALL be executed over the User Profile document stored in the home directory of the User identified by XUI.
- “org.openmobilealliance.user-profile/users/[XUI]/<document name>” is used, the Search SHALL be executed over the User Profile document identified by <document name>.

[Condition] represents a logical expression defined by XDMC. It MAY include any combination of elements/attributes from the User Profile document.

Example of the Condition:

`($g/user-information/hobbies/hobby="Football")and($g/user-information/address/country="JP")`
All Search Requests that does not comply with the basic XQuery expression as defined in this chapter SHALL be responded with an HTTP “409 Conflict” error response as defined by [XDM_Core].

5.2 Locked User Profile

5.2.1 Structure

The Locked User Profile document SHALL conform to the structure of the “user-profile” document described in this sub-clause. The schema definition is provided in section 5.2.3.

The <user-profile> element:
   a) SHALL include a <birth-date> element containing the birth date of the user.
   b) MAY include any other elements from any other namespaces for the purposes of extensibility
   c) MAY include any attribute for the purposes of extensibility

5.2.2 Application Unique ID

The AUID SHALL be “org.openmobilealliance.locked-user-profile”.

5.2.3 XML Schema

The “locked-user-profile” XML document SHALL be composed according to the XML schema described in [XSD_userProfile].

5.2.4 Default Namespace

The default namespace used in expanding URIs SHALL be “urn:oma:xml:xdm:user-profile” defined in Section 5.2.3.

5.2.5 MIME Type

The MIME type for the Locked User Profile document SHALL be “application/vnd.oma.user-profile+xml”

5.2.6 Validation constraints

This Application Usage defines not additional validation constraints.

5.2.7 Data Semantics

The <birth-date> element SHALL express the date of birth of the user as provisioned by the Service Provider.

5.2.8 Naming conventions

The name of the Locked User Profile document SHALL be “lockedprofile”.

5.2.9 Global documents

This Application Usage defines no Global Documents.

5.2.10 Resource interdependencies

This Application Usage defines no additional resource interdependencies.
5.2.11 Authorization policies

The Service Provider SHALL be the only entity allowed to create the document on behalf of the Primary Principal. The Service Provider SHALL have all permissions on the document. The Primary Principal SHALL only have the read permission to this document.
6. Subscribing to changes in the XML documents

The Shared Profile XDMS SHALL support subscriptions to changes in the XML documents as specified in [XDM_Core] “Subscriptions to changes in the XML documents”, subchapters “Initial subscription” and “Generating a SIP NOTIFY request.”
Appendix A. Change History

A.1 Approved Version History

<table>
<thead>
<tr>
<th>Reference</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td>n/a</td>
<td>No prior version</td>
</tr>
</tbody>
</table>

A.2 Draft/Candidate Version 1.0 History

<table>
<thead>
<tr>
<th>Document Identifier</th>
<th>Date</th>
<th>Sections</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft Versions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OMA-TS-XDM_Shared_Profile-V1_0</td>
<td>09 Jan 2006</td>
<td>n/a</td>
<td>Initial Version OMA-PAG-2005-0613</td>
</tr>
<tr>
<td></td>
<td>12 Apr 2006</td>
<td>5.1.1, 5.1.4</td>
<td>Incorporation of OMA-PAG-2005-0679</td>
</tr>
<tr>
<td></td>
<td>12 Apr 2006</td>
<td>5.1.6</td>
<td>Incorporation of OMA-PAG-2006-0012R01</td>
</tr>
<tr>
<td></td>
<td>12 Apr 2006</td>
<td>2.1, 2.2, 3.3</td>
<td>Incorporation of OMA-PAG-2005-0111</td>
</tr>
<tr>
<td></td>
<td>26 Jun 2006</td>
<td>2.1, 5.1.1, 5.1.2</td>
<td>Incorporated CRs: OMA-PAG-2006-0239R01 OMA-PAG-2006-0259</td>
</tr>
<tr>
<td></td>
<td>26 Jun 2006</td>
<td></td>
<td>OMA-PAG-2006-0284R01 OMA-PAG-2006-0337 Document History moved as Appendix A</td>
</tr>
<tr>
<td></td>
<td>24 Nov 2006</td>
<td>1, 2, 1, 2.2</td>
<td>Incorporated CRs: OMA-PAG-2006-0751 OMA-PAG-2006-0753R01</td>
</tr>
<tr>
<td></td>
<td>18 Dec 2006</td>
<td>App B.1, App B.2</td>
<td>Incorporated CR: OMA-PAG-2006-0781R01</td>
</tr>
<tr>
<td></td>
<td>20 Dec 2006</td>
<td>5.1.1.1, 5.1.3, 5.1.4,</td>
<td>Incorporated CRs: OMA-PAG-2006-0850R04 OMA-PAG-2006-0861R02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.1.5, 5.1.6, 5.1.7, 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>05 Feb 2007</td>
<td>Various</td>
<td>Incorporated CRs: OMA-PAG-2007-0046</td>
</tr>
<tr>
<td></td>
<td>14 Feb 2007</td>
<td>1, 2, 3.2, 5.2, 7, 5.1.7</td>
<td>Incorporated CRs: OMA-PAG-2006-0754R03 OMA-PAG-2007-0072R01</td>
</tr>
<tr>
<td></td>
<td>03 Apr 2007</td>
<td>2.1, 4, 3.2, 5.1.1, 5.1.3,</td>
<td>Incorporated CRs: OMA-PAG-2007-0128R02 (change to 5.1.5 not implemented assumed an editorial error)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.1.6, 5.1.7, 5.1.8, 6</td>
<td>OMA-PAG-2007-0146R02 OMA-PAG-2007-0159R01 OMA-PAG-2007-0176</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B.1, B.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.1.7, 5.1.12, 5.2.1,</td>
<td>OMA-PAG-2007-0231R01 OMA-PAG-2007-0242</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.2.4, 5.2.5, 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.1.11</td>
<td>OMA-PAG-2007-0316R01</td>
</tr>
<tr>
<td></td>
<td>05 Jun 2007</td>
<td>all</td>
<td>Incorporated CR: OMA-PAG-2007-0334R02</td>
</tr>
<tr>
<td>Document Identifier</td>
<td>Date</td>
<td>Sections</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------</td>
<td>------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>14 Jun 2007</td>
<td>5.1.5, 5.1.6</td>
<td>Incorporated CR: OMA-PAG-2007-0416R01</td>
</tr>
<tr>
<td></td>
<td>30 Jun 2007</td>
<td>5.2.3</td>
<td>Incorporated CR (correction): OMA-PAG-2007-0220R01</td>
</tr>
<tr>
<td></td>
<td>01 Jul 2007</td>
<td>5.2.3</td>
<td>Editorial correction of schema ref.</td>
</tr>
<tr>
<td>Candidate Version</td>
<td>24 Jul 2007</td>
<td>n/a</td>
<td>Status changed to Candidate by TP (2007-07-11 to 2007-07-24)</td>
</tr>
<tr>
<td>OMA-TS-XDM_Shared_Profile-V1_0</td>
<td></td>
<td></td>
<td>TP ref # OMA-TP-2007-0284-INO_XDM_V2_0_ERP_for_Candidate_approval</td>
</tr>
<tr>
<td>OMA-TS-XDM_Shared_Profile-V1_0</td>
<td></td>
<td></td>
<td>OMA-PAG-2007-0343R01</td>
</tr>
<tr>
<td>Candidate Version</td>
<td>16 Sep 2008</td>
<td>n/a</td>
<td>Status changed to Candidate by TP (2008-09-03 to 2008-09-16)</td>
</tr>
<tr>
<td>OMA-TS-XDM_Shared_Profile-V1_0</td>
<td></td>
<td></td>
<td>TP ref # OMA-TP-2008-0332R01-INO_XDM_V2_0_ERP_for_Candidate_Re_Approval</td>
</tr>
</tbody>
</table>
Appendix B. Static Conformance Requirements

The notation used in this appendix is specified in [SCRRULES]. The SCR’s defined in the following tables include SCR for:

- Shared User Profile XDM Application Usages

## B.1 Shared Profile XDM Application Usages (Server)

<table>
<thead>
<tr>
<th>Item</th>
<th>Function</th>
<th>Reference</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>XDM_Profile-XOP-S-001-M</td>
<td>Support User Profile structure</td>
<td>5.1.1</td>
<td>XDM_Core-XCAP-S-001-M</td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-002-M</td>
<td>Support Application Unique ID in User Profile</td>
<td>5.1.2</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-003-M</td>
<td>Support XML schema of User Profile</td>
<td>5.1.3</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-004-M</td>
<td>User Profile conforms to MIME type</td>
<td>5.1.5</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-005-M</td>
<td>Support validation constraints, in addition to the XML schema</td>
<td>5.1.6</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-006-M</td>
<td>Support data semantics of User Profile</td>
<td>5.1.7</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-007-M</td>
<td>Support naming conventions for Shared User Profile</td>
<td>5.1.8</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-008-M</td>
<td>Authorization policies</td>
<td>5.1.11</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-SUB-S-001-M</td>
<td>Subscribing to changes in XML documents</td>
<td>6</td>
<td>XDM_Core-SUB-S-001-O AND XDM_Core-SUB-S-002-O</td>
</tr>
<tr>
<td>XDM_Profile-SRC-S-001-O</td>
<td>Search capabilities</td>
<td>5.1.12</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-009-M</td>
<td>Support Locked User Profile structure</td>
<td>5.2.1</td>
<td>XDM_Core-XCAP-S-001-M</td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-010-M</td>
<td>Support Application Unique ID in Locked User Profile</td>
<td>5.2.2</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-011-M</td>
<td>Support XML schema of Locked User Profile</td>
<td>5.2.3</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-012-M</td>
<td>Locked User Profile conforms to MIME type</td>
<td>5.2.5</td>
<td></td>
</tr>
<tr>
<td>XDM_Profile-XOP-S-013-M</td>
<td>Support validation constraints, in addition to the XML schema</td>
<td>5.2.6</td>
<td></td>
</tr>
</tbody>
</table>
### B.2 Shared Profile XDM Application Usages (Client)

<table>
<thead>
<tr>
<th>Item</th>
<th>Function</th>
<th>Reference</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>XDM_Profile-XOP-C-001-O</td>
<td>Support User Profile Application Usage</td>
<td>5.1</td>
<td>XDM_Profile-XOP-C-002-O AND XDM_Profile-XOP-C-003-O AND XDM_Profile-XOP-C-004-O AND XDM_Profile-XOP-C-005-O AND XDM_Profile-XOP-C-006-O AND XDM_Profile-XOP-C-007-O AND XDM_Profile-XOP-C-008-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-002-O</td>
<td>Support User Profile structure</td>
<td>5.1.1</td>
<td>XDM_Core-XOP-C-003-M AND XDM_Profile-XOP-C-001-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-003-O</td>
<td>Support Application Unique ID in User Profile</td>
<td>5.1.2</td>
<td>XDM_Profile-XOP-C-001-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-004-O</td>
<td>Support XML schema of User Profile</td>
<td>5.1.3</td>
<td>XDM_Profile-XOP-C-001-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-005-O</td>
<td>User Profile conforms to MIME type</td>
<td>5.1.5</td>
<td>XDM_Profile-XOP-C-001-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-006-O</td>
<td>Support validation constraints, in addition to the XML schema</td>
<td>5.1.6</td>
<td>XDM_Profile-XOP-C-001-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-007-O</td>
<td>Support data semantics of User Profile</td>
<td>5.1.7</td>
<td>XDM_Profile-XOP-C-001-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-008-O</td>
<td>Support naming conventions for User Profile</td>
<td>5.1.8</td>
<td>XDM_Profile-XOP-C-001-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-009-O</td>
<td>Support Locked User Profile Application Usage</td>
<td>5.2</td>
<td>XDM_Profile-XOP-C-010-O AND XDM_Profile-XOP-C-011-O AND XDM_Profile-XOP-C-012-O AND XDM_Profile-XOP-C-013-O AND XDM_Profile-XOP-C-014-O AND XDM_Profile-XOP-C-015-O AND XDM_Profile-XOP-C-016-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-010-O</td>
<td>Support Locked User Profile structure</td>
<td>5.2.1</td>
<td>XDM_Core-XOP-C-003-M AND XDM_Profile-XOP-C-009-O</td>
</tr>
<tr>
<td>Item</td>
<td>Function</td>
<td>Reference</td>
<td>Requirement</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-011-O</td>
<td>Support Application Unique ID in Locked User Profile</td>
<td>5.2.2</td>
<td>XDM_Profile-XOP-C-009-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-012-O</td>
<td>Support XML schema of Locked User Profile</td>
<td>5.2.3</td>
<td>XDM_Profile-XOP-C-009-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-013-O</td>
<td>Locked User Profile conforms to MIME type</td>
<td>5.2.5</td>
<td>XDM_Profile-XOP-C-009-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-014-O</td>
<td>Support validation constraints, in addition to the XML schema</td>
<td>5.2.6</td>
<td>XDM_Profile-XOP-C-009-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-015-O</td>
<td>Support data semantics of Locked User Profile</td>
<td>5.2.7</td>
<td>XDM_Profile-XOP-C-009-O</td>
</tr>
<tr>
<td>XDM_Profile-XOP-C-016-O</td>
<td>Support naming conventions for Locked User Profile</td>
<td>5.2.8</td>
<td>XDM_Profile-XOP-C-009-O</td>
</tr>
<tr>
<td>XDM_Profile-SRC-C-001-O</td>
<td>Search capabilities</td>
<td>5.1.12</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C. Examples

(C.1 Obtaining a User Profile document)

Figure C.1 describes how XDMC obtains a particular User Profile document.

```
The details of the flows are as follows:

1) The user “sip:bob@example.com” wants to obtain the user sip:alice@example.com User Profile document. For this purpose the XDMC sends an HTTP GET request to the Aggregation Proxy.

GET /org.openmobilealliance.user-profile/users/sip:alice@example.com/user-profile HTTP/1.1
Host: xcap.example.com
User-Agent: XDM-client/OMA2.0
Date: Thu, 10 Aug 2007 10:50:33 GMT
X-3GPP-Intended-Identity: "sip:bob@example.com"

2) Upon receiving an unauthorized HTTP GET the Aggregation Proxy chooses to authenticate the XDMC.

HTTP/1.1 401 Unauthorized
Server: XDM-proxy/OMA2.0
Date: Thu, 10 Aug 2007 10:50:33 GMT
WWW-Authenticate: Digest realm="xcap.example.com", nonce="47364c23432d2e131a5fb210812c", qop=auth-int
Content-Length: 0

3) The XDMC sends a HTTP GET request including the Authorization header to the Aggregation Proxy.

GET /org.openmobilealliance.user-profile/users/sip:alice@example.com/user-profile HTTP/1.1
Host: xcap.example.com
User-Agent: XDM-client/OMA2.0
Date: Thu, 10 Aug 2007 10:50:34 GMT
Authorization: Digest realm="xcap.example.com", nonce="47364c23432d2e131a5fb210812c",
username="sip:bob@example.com", qop=auth-int,
uri="/org.openmobilealliance.user-profile/users/sip:alice@example.com/user-profile",
response="28ee200cc7f6e966c932a92d2554e4", cnonce="dcd99gsfgrsa8b7102dd2f0e8b1", nc=00000001
X-3GPP-Intended-Identity: "sip:bob@example.com"
Accept-Encoding: gzip

4) Based on the AUID the Aggregation Proxy forwards the request to Shared Profile XDMS.

HTTP/1.1 200 OK
```

© 2008 Open Mobile Alliance Ltd. All Rights Reserved.
Used with the permission of the Open Mobile Alliance Ltd. under the terms as stated in this document.
6) The Aggregation Proxy routes the response to the XDMC.

C.2 Search in the home domain User Profile XDMS

Figure C.2 describes how an XDMC can do a search in the Shared User Profile XDMS.
The details of the flows are as follows:

1) The user “sip:joebloggs@example.com” wants to obtain user profile data about people from California and with the hobby “Bird watching”. For this purpose the XDMC sends an HTTP POST request to the Aggregation Proxy.

```
POST /org.openmobilealliance.search?target=org.openmobilealliance.user-profile/users/ HTTP/1.1
Host: xcap.example.com
User-Agent: XDM-client/OMA2.0
Date: Thu, 10 Aug 2007 11:50:33 GMT
X-3GPP-Intended-Identity: "sip:joebloggs@example.com"
Accept-Encoding: gzip
Content-Type: application/vnd.oma.search+xml; charset="utf-8"
Content-Length: …

<?xml version="1.0" encoding="UTF-8"?>
<search-set xmlns="urn:oma:xml:xdm:search">
  <search id="1234">
    <request>
      <query>
        <![CDATA[
          xquery version "1.0";
          declare default element namespace "urn:oma:xml:xdm:user-profile";
          for $u in collection("org.openmobilealliance.user-profile/users/")/user-profiles/user-profile
          where ($u/hobbies/hobby="Bird watching") and ($u/address/region="California")
          return <user-profile>{$u/@uri}{$u/display-name}</user-profile>
        ]]> 
      </query>
    </request>
  </search>
</search-set>
```

2) Upon receiving an unauthorized HTTP POST the Aggregation Proxy chooses to authenticate the XDMC.

```
HTTP/1.1 401 Unauthorized
Server: XDM-proxy/OMA2.0
Date: Thu, 10 Aug 2007 11:50:33 GMT
WWW-Authenticate: Digest realm="xcap.example.com", nonce="47364c23432d2e131a5fb210812c", qop=auth-int
Content-Length: 0
```

3) The XDMC sends a HTTP POST request including the Authorization header to the Aggregation Proxy.
4) Based on the “org.openmobilealliance.search” part of the Request URI, the Aggregation Proxy forwards the Search Request to the Search Proxy.

```xml
POST /org.openmobilealliance.search?target=org.openmobilealliance.user-profile/users/ HTTP/1.1
Host: xcap.example.com
User-Agent: XDM-client/OMA2.0
Date: Thu, 10 Aug 2007 11:50:33 GMT
Authorization: Digest realm="xcap.example.com", nonce="47364c23432d2e131a5fb210812c",
    username="sip:joebloggs@example.com", qop="auth-int,
    uri="/org.openmobilealliance.search?target=org.openmobilealliance.user-profile/users/",
    response="2c8ee200cecf6de966c932a9242554a4", cnonce="dcd99a9gf9a8b71102dd2d0e8b1", nc=00000001
X-3GPP-Intended-Identity: "sip:joebloggs@example.com"
Accept-Encoding: gzip
Content-Type: application/vnd.oma.search+xml; charset="utf-8"
Content-Length: ...

<?xml version="1.0" encoding="UTF-8"?>
<search-set xmlns="urn:oma:xml:xdm:search">
    <search id="1234">
        <request>
            <query><![CDATA[
            xquery version "1.0";
            declare default element namespace "urn:oma:xml:xdm:user-profile";
            for $u in collection("org.openmobilealliance.user-profile/users/")/user-profiles/user-profile
            where ($u/hobbies/hobby="Bird watching")and($u/address/region="California")
            return <user-profile>{$u/@uri}{$u/display-name}</user-profile>
            ]]>)
        </query>
    </request>
</search>
</search-set>
```

NOTE 1: If the “X-3GPP-Intended-Identity” is not included in the message (3), the Aggregation Proxy will include the “X-3GPP-Asserted-Identity” header.

5) Based on the target parameter “target=org.openmobilealliance.user-profile/users/” in the Request URI, the Search Proxy forwards the Search Request to the Shared Profile XDMS. When forwarding, the Search Proxy removes the “target” query parameter from the HTTP URI.
POST /org.openmobilealliance.search HTTP/1.1
Host: xcap.example.com
User-Agent: XDM-client/OMA2.0
Date: Thu, 10 Aug 2007 11:50:33 GMT
X-3GPP-Intended-Identity: "sip:joebloggs@example.com"
Accept-Encoding: gzip
Content-Type: application/vnd.oma.search+xml; charset=utf-8
Content-Length: ...

<?xml version="1.0" encoding="UTF-8"?>
<search-set xmlns="urn:oma:xml:xdm:search">
 <search id="1234">
 <request>
 <query>
 <![CDATA[
 xquery version "1.0";
 declare default element namespace "urn:oma:xml:xdm:user-profile";
 for $u in collection("org.openmobilealliance.user-profile/users")/user-profile
 where ($u/hobbies/hobby="Bird watching") and ($u/region="California")
 return <user-profile>{$u/@uri}{$u/display-name}</user-profile>
 ]]> 
 </query>
 </request>
 </search>
</search-set>

6) After the Shared Profile XDMS has performed the search operation, the Shared Profile XDMS sends an HTTP “200 OK” response including the requested results in the body.

HTTP/1.1 200 OK
Server: XDM-serv/OMA2.0
Date: Thu, 10 Aug 2007 11:50:39 GMT
Content-Type: application/vnd.oma.search+xml; charset=utf-8
Content-Length: (...)

<?xml version="1.0" encoding="UTF-8"?>
 <search id="1234">
 <response>
 <up:user-profile uri="alice@example.com"><up:display-name>Alice</up:display-name></up:user-profile>
 <up:user-profile uri="seth@example.com"><up:display-name>Seth</up:display-name></up:user-profile>
 </response>
 </search>
</search-set>

7) The Search Proxy routes the response to the Aggregation Proxy.

HTTP/1.1 200 OK
Server: XDM-serv/OMA2.0
Date: Thu, 10 Aug 2006 10:50:39 GMT
Content-Type: application/vnd.oma.search+xml; charset=utf-8
Content-Length: (...)

<?xml version="1.0" encoding="UTF-8"?>
 <search id="1234">
 <response>
 <up:user-profile uri="alice@example.com"><up:display-name>Alice</up:display-name></up:user-profile>
 <up:user-profile uri="seth@example.com"><up:display-name>Seth</up:display-name></up:user-profile>
 </response>
 </search>
</search-set>

8) The Aggregation Proxy encodes (optionally) the content and routes the response back to the XDMC.

HTTP/1.1 200 OK
Server: XDM-serv/OMA2.0
<?xml version="1.0" encoding="UTF-8"?>
    <search id="1234">
        <response>
            <up:user-profile uri="alice@example.com"><up:display-name>Alice</up:display-name></up:user-profile>
            <up:user-profile uri="seth@example.com"><up:display-name>Seth</up:display-name></up:user-profile>
        </response>
    </search>
</search-set>