

# Enabler Test Specification for XML Document Management Interoperability

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# 1. Scope

This document describes in detail available test cases for Enabler XDM V2.0 ( <a href="http://www.openmobilealliance.org">http://www.openmobilealliance.org</a> ).

The interoperability test cases are aimed to verify that implementations of the specifications work satisfactory.

The coverage of the tests includes Aggregation Proxy, Aggregation Proxy of Remote Network Shared Group XDMS, Shared Profile XDMS, Shared List XDMS, and Shared Policy XDMS and Search Proxy. These tests will be done using testing of other enablers such as PoC V2.0 and SIMPLE IM, as XDM cannot be tested stand-alone.

For the enabler specific XDM tests, see the corresponding enabler XDM ETS document (s).

### 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

[IOPPROC] "OMA Interoperability Policy and Process", Version 1.8, Open Mobile Alliance<sup>TM</sup>, OMA-ORG-IOP-

Process-V1 8, URL:http://www.openmobilealliance.org/

[OMA\_XDMv1\_ETS] "Enabler Test Specification for XML Document Management Interoperability", Version 1.0, Open Mobile

Alliance<sup>TM</sup>, OMA-ERELD-XDM-V1 0, URL:http://www.openmobilealliance.org/

[OMA\_PoC\_XDMv1\_E "Enabler Test Specification for PoC XDM Interoperability", Version 1.0, Open Mobile Alliance<sup>TM</sup>,

OMA-ETS-PoC XDM-V1 0, URL:http://www.openmobilealliance.org/

[OMA\_XDM\_AD] "XML Document Management Architecture", Version 2.0. Open Mobile Alliance<sup>TM</sup>. OMA-AD-XDM-

V2\_0, URL:http://www.openmobilealliance.org/

[OMA\_XDM\_CORE] "XML Document Management (XDM) Specification", Version 2.0, Open Mobile Alliance™, OMA-TS-

XDM\_Core-V2\_0, URL:http://www.openmobilealliance.org/

[OMA XDM GROUP] "OMA Shared Group XDM Specification", Version 2.0, Open Mobile Alliance™, OMA-TS-

XDM Shared Group-V2 0, URL:http://www.openmobilealliance.org/

[OMA\_XDM\_LIST] "OMA Shared List XDM Specification", Version 2.0, Open Mobile Alliance™, OMA-TS-

XDM\_Shared\_List-V2\_0, URL:http://www.openmobilealliance.org/

[OMA\_XDM\_POLI] "OMA Shared Policy XDM Specification", Version 2.0, Open Mobile Alliance™, OMA-TS-

XDM Shared Policy-V2 0, URL:http://www.openmobilealliance.org/

[OMA\_XDM\_PROF] "OMA Shared Profile XDM Specification", Version 2.0, Open Mobile Alliance™, OMA-TS-

XDM\_Shared\_Profile-V2\_0, URL:http://www.openmobilealliance.org/

[OMA\_XDM\_RD] "OMA XML Document Management Requirements", Version 2.0. Open Mobile Alliance™. OMA-RD-

XDM-V2 0, URL:http://www.openmobilealliance.org/

[OMA\_XDM\_ETR] "Enabler Test Requirements for XML Document Management (XDM)", Draft Version 2.0, Open Mobile

Alliance™, OMA-ETR-XDM-V2 0, URL:http://www.openmobilealliance.org/

### 2.2 Informative References

[OMADICT] "Dictionary for OMA Specifications", Version 2.7 Open Mobile Alliance<sup>TM</sup>,

OMA-ORG-Dictionary-V2 7, URL:http://www.openmobilealliance.org/

[XCAP] "The Extensible Markup Language (XML) Configuration Access protocol (XCAP)", J. Rosenberg,

October 13, 2006, URL: http://www.ietf.org/internet-drafts/draft-ietf-simple-xcap-12.txt

Note: IETF Draft work in progress.

# 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", are normative, unless they are explicitly indicated to be informative.

The following numbering scheme is used:

#### xxx-y.z-int-number where:

xxx Name of enabler, e.g. MMS or Browsing
 y.z Version of enabler release, e.g. 1.2 or 1.2.1
 'int' Indicating this test is a interoperability test case

number Leap number for the test case

#### 3.2 Definitions

**Shared Group** A group which can be used by multiple enablers.

User A person using UE.

User[N] A subscriber assigned to UE, where N is an integer number (i.e User1, User2, etc).

**UE** A client terminal with assigned User[N] used for testing.

URI List A list of URIs.

XDM Client An HTTP client that understands how to follow the naming and validation constraints defined in [XCAP]

XDM Server An HTTP server that understands how to follow the naming and validation constraints defined in [XCAP]

### 3.3 Abbreviations

AD Architecture Document

AUID Application Unique ID

OMA Open Mobile Alliance

RD Requirements Document

URI Uniform Resource Identifier

XCAP XML Configuration Access Protocol

XDM XML Document Management

XDMC XDM Client
XDMS XDM Server

XML Extensible Markup Language

XUI XCAP User Identifier

### 4. Introduction

The purpose of this document is to provide test cases for XDM Enabler Release V2.0.

The implementation of some features is optional for the Clients and/or the Servers in the XDM V2.0 Enabler. The tests associated with these optional features are marked as "(Includes Optional Features)" in the test specification.

The following items on an overall level are needed to adequately test the XDM Enabler:

- A Client that is comprised of XDMC plus one or more of the following: IM Client, PoC Client, Watcher and/or Presence Source logical components,
- An Aggregation Proxy, an Aggregation Proxy of Remote Network
- Shared XDMSs (Shared Group, Shared Profile, Shared List or Shared Policy),
- Services specific XDM Servers, for instance, IM XDMS, Presence XDMS and/or RLS XDMS.
- A Search Proxy
- SIP/IP Core network

Detailed information will be included in the specific test cases description.

The XDM Enabler tests are carried out using XCAP and SIP protocols. The transport protocols used are UDP, TCP and/or TLS.

# 5. XDM Interoperability Test Cases

This section lists the steps needed for the execution of the XDM interoperability test cases.

## 5.1 Security Test Cases

### 5.1.1 Normal flow

#### 5.1.1.1 XDM-2.0-int-0100 Authentication of XDMC in the UE

Editor's note: Please refer to [OMA\_XDMv1\_ETS]

#### 5.1.1.2 XDM-2.0-int-0101 GAA authentication (Includes Optional Features)

Test Case Id	XDM-2.0-int-0101
Test Object	UE with XDMC, Aggregation Proxy and Shared XDMS
<b>Test Case Description</b>	Verify that if GAA is supported for client authentication, an XDMC and an Aggregation Proxy interoperate, as required.
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.1, 6.3, 5.1.1
SCR Reference	XDM_Core-SEC-C-004-O, XDM_Core-SEC-S-006-O
ETR Reference	SEC-004
Tool	Not available.
Test code	Not available.
Preconditions	Equipment:
	UE (with User1 credentials)
	o Aggregation Proxy
	Prerequisite for this test:
	<ul> <li>XDM-2.0-int-0150 – authentication failure test case executes successfully. This is to verify that the Aggregation Proxy is challenging the requests.</li> </ul>
	<ul> <li>User1 is preconfigured in the network with valid credentials.</li> </ul>
	o The UE is powered off.
	<ul> <li>Authentication is enabled in the Aggregation Proxy.</li> </ul>
	UE does not have any documents stored locally for User1
	<ul> <li>Logging might be required for this test case, in order to fully verify the successful authentication.</li> </ul>
Test Procedure	1. UE1 is powered on.
	2. XDMS is contacted to retrieve User1 document (s).
Pass-Criteria	2. No failed authentication indication is displayed to the user. X-3GPP-Intended-Identity header of HTTP corresponds to the authenticated identity.

### 5.1.2 Error flow

#### 5.1.2.1 XDM-2.0-int-0150 Too Many Failed Authentication Attempts by XDMC in UE

Editor's note: Please refer to [OMA XDMv1 ETS]

# 5.2 XML Documents Directory Test Cases

### 5.2.1 Normal flow

#### 5.2.1.1 XDM-2.0-int-0200 XCAP Directory Retrieval

Test Case Id	XDM-2.0-int-0200
Test Object	UE with XDMC, Aggregation Proxy, any XDMS
<b>Test Case Description</b>	Verify the interoperability of entities supporting the Application Usage "org.openmobilealliance.xcap-directory".
	TEST CASE GOAL: Verify that a XDMC can retrieve the list of documents from the correct XDMS and for a given XUI.
Specification Reference	[OMA_XDM_CORE] 6.3.1.4, 5.3.2
SCR Reference	XDM_Core-DIR-C-001-O, XDM_Core-DIR-S-001-M, XDM_Core-DIR-S-002-M
ETR Reference	DIR-001
Tool	Not available.
Test code	Not available.
Preconditions	Equipment:
	UE (with User1 credentials)
	o Aggregation Proxy
	o Any XDMS
	Prerequisite for this test:
	o XDM-2.0-int-0100 executes successfully.
	<ul> <li>There is at least one document for User 1. There is a directory.xml file for one XDMS and for User 1.</li> </ul>
	<ul> <li>UE is powered off.</li> </ul>
Test Procedure	1. UE is powered on.
	2. XDMS is contacted via the Aggregation Proxy to retrieve a list of all XML documents for User1.
Pass-Criteria	2. The document directory.xml is delivered to XDMC (compiled by the Aggregation Proxy).

### 5.2.2 Error flow

Not available.

### 5.3 URI List Test Cases

Editor's note: Please refer to [OMA\_XDMv1\_ETS]

# 5.4 Group Test Cases

#### 5.4.1 Normal flow

#### 5.4.2 Error flow

# 5.5 Extended Group Test Cases

#### 5.5.1 Normal flow

# 5.5.1.1 XDM-2.0-int-0500 Extended Group Advertisement – Group creation (Includes Optional Features)

Test Case Id	XDM-2.0-int-0500
Test Object	UE with XDMC, Aggregation Proxy, SIP/IP Core, Shared Group XDMS
Test Case Description	Verify that a Shared Group XDMS generates and sends the Extended Group Advertisement document to the relevant XDMC(s), and an XDMC handles the Extended Advertisement document.
<b>Specification Reference</b>	[OMA_XDM_GROUP] 7.2
SCR Reference	XDM_Group-GA-S-001-O, XDM_Group-GA-S-002-O, XDM_Group-GA-S-003-O
ETR Reference	GA-001
Tool	Not available.
Test code	Not available.
Preconditions	<ul> <li>Equipment:         <ul> <li>2 UEs (UE1 with User1 and UE2 with User2 credentials)</li> <li>Aggregation Proxy</li> <li>Shared Group XDMS</li> </ul> </li> <li>Prerequisite for this test:         <ul> <li>XDM-2.0-int-0100 executes successfully.</li> <li>UE1 and UE2 are powered off</li> <li>Group with the display name Group1 does not exist in the list of groups for both User1 and User2.</li> <li>UE1 and UE2 are capable of displaying the members of the groups (Groups created by the User provisioned on the UE).</li> </ul> </li> </ul>
Test Procedure	<ol> <li>UE1 and UE2 are powered on.</li> <li>Group1 is created using UE1 (XDMC of UE1 includes the <automatic-group-advertisement> element set to "true" in the group document).</automatic-group-advertisement></li> <li>User1 and User2 members are added to Group1 using UE1.</li> </ol>
Pass-Criteria	3. Shared Group XDMS sends an Extended Group Advertisement message according to the procedures of the SIP/IP Core. Both UE1 and UE2 receive the Extended Group Advertisement message.

### 5.5.2 Error flow

Not available.

### 5.6 User Profile Test Cases

### 5.6.1 Normal flow

# 5.6.1.1 XDM-2.0-int-0600 User Profile creation and retrieval (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0600
Test Object	UE with XDMC, Aggregation Proxy, Shared Profile XDMS
Test Case Description	Verify that an XDMC sends a request for creating a new User Profile document, and a Shared Profile XDMS creates a new User Profile document upon receiving such a request from an XDMC.
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.1.1, 6.2.1
	[OMA_XDM_PROF] 5.1
SCR Reference	XDM_Profile-XOP-C-001-O, XDM_Core-XOP-C-001-M
ETR Reference	XOP-009, XOP-011
Tool	Not available.
Test code	Not available.
Preconditions	<ul> <li>Equipment:         <ul> <li>2 UEs (with User1 credentials)</li> <li>Aggregation Proxy</li> <li>Shared Profile XDMS</li> </ul> </li> <li>Prerequisite for this test:         <ul> <li>XDM-2.0-int-0100 executes successfully.</li> <li>Shared Profile XDMS doesn't have any document for User1.</li> <li>UE1 and UE2 are capable of displaying the User Profile for a given user.</li> <li>UE1 and UE2 are powered off.</li> </ul> </li> </ul>
Test Procedure	<ol> <li>UE1 is powered on.</li> <li>A User Profile is created for User1 using UE1.</li> <li>UE1 is powered off.</li> <li>UE2 is powered on.</li> <li>The User Profile for User1 is retrieved using UE2.</li> </ol>
Pass-Criteria	<ol> <li>UE1 displays the User Profile for User1.</li> <li>UE2 displays the User Profile for User1.</li> </ol>

# 5.6.1.2 XDM-2.0-int-0601 User Profile modification and retrieval (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0601
Test Object	UE with XDMC, Aggregation Proxy, User Profile XDMS
Test Case Description	Verify that an XDMC sends a request for modifying and retrieving a User Profile document, and a Shared Profile XDMS modifies a User Profile document upon receiving such a request from an XDMC.  TEST CASE GOAL: Modify the <display-name> element of the <user-information> belonging to the <shared-user-profile> of a user and verify that the Shared Profile XML document is updated correctly in the Shared Profile XDMS.</shared-user-profile></user-information></display-name>
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.1.1, 6.2.1
	[OMA_XDM_PROF] 5.1
SCR Reference	XDM_Profile-XOP-C-001-O, XDM_Core-XOP-C-001-M
ETR Reference	XOP-010, XOP-011
Tool	Not available.
Test code	Not available.
Preconditions	• Equipment:
	o 2 UEs (with User1 credentials)
	<ul><li>Aggregation Proxy</li><li>Shared Profile XDMS</li></ul>
	Prerequisite for this test:
	O UE1 and UE2 support <display-name> element.</display-name>
	<ul> <li>Shared Profile XDMS has a document for User1 and the value for <display-name> is User2.</display-name></li> </ul>
	<ul> <li>UE1 is powered on and UE2 is powered off.</li> </ul>
	<ul> <li>UE1 and UE2 are capable of displaying the User Profile for a given user.</li> </ul>
Test Procedure	1. User Profile of User2 is selected using UE1.
	2. The URI of User2 is noted.
	3. The <display-name> of the User2 is changed from User2 to User3 using UE1.</display-name>
	4. UE1 is powered off.
	5. UE2 is powered on.
	6. The User Profile for the user named User3 is retrieved using UE2.
	7. The URI of User3 is selected using UE2 and compared to the noted URI in Step 2.
Pass-Criteria	1. UE1 displays the display name for User1.
	2. Optionally, UE2 displays URI for User1.
	7. UE2 displays the URI for UE3. The URI displayed on UE2 is identical to the URI noted in Step 2.

# 5.6.1.3 XDM-2.0-int-0602 User Profile deletion (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0602
Test Object	UE with XDMC, Aggregation Proxy, User Profile XDMS
Test Case Description	Verify that an XDMC sends a request for deleting a User Profile document, and a Shared Profile XDMS deletes a User Profile document upon receiving such a request from an XDMC.
Specification Reference	[OMA_XDM_CORE] 6.1.1, 6.2.1
	[OMA_XDM_PROF] 5.1
SCR Reference	XDM_Profile-XOP-C-001-O, XDM_Core-XOP-C-001-M
ETR Reference	XOP-0012
Tool	Not available.
Test code	Not available.
Preconditions	Equipment:
	o 2 UEs (with User1 credentials)
	o Aggregation Proxy
	o Shared Profile XDMS
	Prerequisite for this test:
	o XDM-2.0-int-0100 executes successfully.
	<ul> <li>UE1 and UE2 support <display-name> element.</display-name></li> </ul>
	<ul> <li>Shared Profile XDMS has a document for User1 and the value for <display-name> is User1.</display-name></li> </ul>
	<ul> <li>UE1 is powered on and UE2 is powered off.</li> </ul>
	<ul> <li>UE1 and UE2 are capable of displaying the User Profile for a given user.</li> </ul>
Test Procedure	1. User Profile of User1 is retrieved using UE1.
	2. User1 User Profile is selected and deleted using UE1.
	3. UE1 is powered off.
	4. UE2 is powered on.
	5. User1 User Profile manipulated in Step 2 is retrieved using UE2.
Pass-Criteria	1. UE1 displays the User Profile for User1.
	2. There is no User Profile for User1.
	5. There is no User Profile for User1.

### 5.6.2 Error flow

Not available.

### 5.7 Locked User Profile Test Cases

#### 5.7.1 Normal flow

#### 5.7.2 Error flow

Not available.

# 5.8 User Access Policy Test Cases

#### 5.8.1 Normal flow

# 5.8.1.1 XDM-2.0-int-0800 User Access Policy creation and retrieval (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0800
Test Object	UE with XDMC, Aggregation Proxy, Shared Policy XDMS
Test Case Description	Verify that an XDMC sends a request for creating a new User Access Policy document, and a Shared Policy XDMS creates a new User Access Policy document upon receiving such a request from an XDMC.
Specification Reference	[OMA_XDM_CORE] 6.1.1, 6.2.1
	[OMA_XDM_POLI] 5.1
SCR Reference	XDM_Policy-XOP-C-001-O, XDM_Core-XOP-C-001-M
ETR Reference	XOP-0017, XOP-0019
Tool	Not available.
Test code	Not available.
Preconditions	<ul> <li>Equipment:         <ul> <li>2 UEs (UE1 and UE2 with User1 credentials).</li> <li>Aggregation Proxy.</li> <li>Shared Policy XDMS.</li> </ul> </li> <li>Prerequisite for this test:         <ul> <li>XDM-2.0-int-0100 executes successfully.</li> <li>Shared Policy XDMS doesn't have any document for User1.</li> <li>UE1 XDMC supports User Access Policy creation.</li> </ul> </li> </ul>
	<ul> <li>UE1 and UE2 are capable of displaying the User Access Policy document</li> <li>UE1 and UE2 are powered off.</li> </ul>
Test Procedure	<ol> <li>UE1 is powered on.</li> <li>A User Access Policy is created for User1 using UE1</li> <li>UE1 is powered off.</li> <li>UE2 is powered on.</li> <li>The User Access Policy for User1 is retrieved using UE2.</li> </ol>
Pass-Criteria	<ol> <li>The User Access Policy for User1 is displayed on UE1</li> <li>The User Access Policy for User1 is displayed on UE2</li> </ol>

# 5.8.1.2 XDM-2.0-int-0801 User Access Policy modification and retrieval (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0801
Test Object	UE with XDMC, Aggregation Proxy, Shared Policy XDMS
Test Case Description	Verify that an XDMC sends a request for modifying and retrieving a User Access Policy document, and a Shared Policy XDMS modifies a User Access Policy document upon receiving such a request from an XDMC.  TEST CASE GOAL: Modify the policy rule <allow-reject-invite> element of a user and verify that the Shared Policy XML document is updated</allow-reject-invite>
	correctly in the Shared Policy XDMS.
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.1.1, 6.2.1
	[OMA_XDM_POLI] 5.1
SCR Reference	XDM_Policy-XOP-C-001-O, XDM_Core-XOP-C-001-M
ETR Reference	XOP-018, XOP-019
Tool	Not available.
Test code	Not available.
Preconditions	<ul> <li>Equipment:         <ul> <li>2 UEs (UE1 and UE2 with User1 credentials).</li> <li>Aggregation Proxy</li> <li>Shared Policy XDMS</li> </ul> </li> <li>Prerequisite for this test:         <ul> <li>XDM-2.0-int-0100 executes successfully.</li> <li>Shared Policy XDMS has a document for User1 with the following values of <allow-reject-invite> element: "false" for User2.</allow-reject-invite></li> <li>UE1 is powered on and UE2 is powered off.</li> <li>UE1 XDMC supports User Access Policy modification.</li> <li>UE2 XDMC supports User Access Policy retrieval.</li> <li>UE1 and UE2 are capable of displaying the policy rule <allow-reject-invite> element for contacts.</allow-reject-invite></li> </ul> </li> </ul>
Test Procedure	<ol> <li>User1 on UE1 sets the access policy rule <allow-reject-invite> element to "true" for User2 (indicating "accept").</allow-reject-invite></li> <li>UE1 is powered off.</li> <li>UE2 is powered on.</li> <li>The <allow-reject-invite> elements for User1 contacts are retrieved using UE2.</allow-reject-invite></li> </ol>
Pass-Criteria	<ol> <li>The contacts for User1 are displayed on UE1 with the following values of <allow-reject-invite> element: "true" for User2 (indicating "accept").</allow-reject-invite></li> <li>The contacts for User1 are displayed on UE2 with the following values of <allow-reject-invite> element: "true" for User2 (indicating "accept").</allow-reject-invite></li> </ol>

# 5.8.1.3 XDM-2.0-int-0802 User Access Policy deletion (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0802
Test Object	UE with XDMC, Aggregation Proxy, Shared Policy XDMS
Test Case Description	Verify that an XDMC sends a request for deleting a User Access Policy document, and a Shared Policy XDMS deletes a User Access Policy document upon receiving such a request from an XDMC.
Specification Reference	[OMA_XDM_CORE] 6.1.1, 6.2.1
	[OMA_XDM_POLI] 5.1
SCR Reference	XDM_Policy-XOP-C-001-O, XDM_Core-XOP-C-001-M
ETR Reference	XOP-020
Tool	Not available.
Test code	Not available.
Preconditions	Equipment:
	o 2 UEs (with User1 credentials)
	o Aggregation Proxy
	<ul> <li>Shared Policy XDMS</li> </ul>
	Prerequisite for this test:
	o XDM-2.0-int-0100 executes successfully.
	<ul> <li>Shared Policy XDMS has a document for User1.</li> </ul>
	<ul> <li>UE1 is powered on and UE2 is powered off.</li> </ul>
	<ul> <li>UE1 XDMC supports User Access Policy retrieval and deletion.</li> </ul>
	<ul> <li>UE1 and UE2 are capable of displaying the User Access Policy document.</li> </ul>
Test Procedure	1. The User Access Policy of User1 contacts is retrieved using UE1.
	2. User1 User Access Policy is selected and deleted using UE1.
	3. UE1 is powered off.
	4. UE2 is powered on.
	5. User1 User Access Policy manipulated in Step 2 is retrieved using UE2.
Pass-Criteria	1. UE1 displays the User Access Policy for User1.
	2. There is no User Access Policy for User1.
	5. There is no User Access Policy for User1.

### 5.8.2 Error flow

Not available.

# 5.9 Subscription Test Cases

#### 5.9.1 Normal flow

# 5.9.1.1 XDM-2.0-int-0900 Subscription to changes in URI List documents (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0900
Test Object	UE with XDMC, SIP/IP Core, Shared List XDMS
Test Case Description	Verify that an XDMC subscribes to changes in URI List document and handles the notifications.  TEST CASE GOAL: Verify that a XDMC subscribes to document changes and handles the notification and the Shared List XDMS handles the subscription request and sends the notifications as required.
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.1.2, 6.2.2
	[OMA_XDM_LIST] 6
SCR Reference	XDM_Core-SUB-C-001-O, XDM_Core-SUB-C-002-O
ETR Reference	SUB-001
Tool	Not available.
Test code	Not available.
Preconditions	Equipment:
Test Procedure	<ol> <li>UE1 is powered on.</li> <li>UE2 is powered on.</li> <li>UE2 subscribes to changes in the URI List document of User 1.</li> <li>User2 member is added to the URI List using UE1.</li> </ol>
Pass-Criteria	4. The change made to the URI List is notified to UE2.

# 5.9.1.2 XDM-2.0-int-0901 Subscription to changes in Group documents (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0901
Test Object	UE with XDMC, SIP/IP Core, Shared Group XDMS

Tool Cose Description	Varification VDMC subscribes to about social Comment and housing
<b>Test Case Description</b>	Verify that an XDMC subscribes to changes in Group document and handles the notifications.
	TEST CASE GOAL: Verify that a XDMC subscribes to document changes
	and handles the notification and the Shared Group XDMS handles the subscription request and sends the notifications as required.
Specification Reference	[OMA_XDM_CORE] 6.1.2, 6.2.2
	[OMA_XDM_GROUP] 6
SCR Reference	XDM_Core-SUB-C-001-O, XDM_Core-SUB-C-002-O
ETR Reference	SUB-002
Tool	Not available.
Test code	Not available.
Preconditions	Equipment:
	o 2 UEs (UE1 with User1 and UE2 with User2 credentials)
	o SIP/IP Core
	o Shared Group XDMS
	Prerequisite for this test:
	o XDM-2.0-int-0100 executes successfully.
	<ul> <li>Shared Group XDMS has a Group with display name Group1 document for User1 (User to be added is not in this group).</li> </ul>
	<ul> <li>UE1 and UE2 are capable of displaying the members of the groups (Groups created by the User provisioned on the UE).</li> </ul>
	<ul> <li>UE2 XDMC is authorised to subscribe changes in User1's documents.</li> </ul>
	<ul> <li>UE1 and UE2 are powered off.</li> </ul>
Test Procedure	1. UE1 is powered on.
	2. UE2 is powered on.
	3. UE2 subscribes to changes in the Group document, Group1 of User 1.
	4. Another user member (User2) is added to Group1 using UE1.
Pass-Criteria	4. The change made to the URI List is notified to UE2.

# 5.9.1.3 XDM-2.0-int-0902 Subscription to changes in User Profile documents (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0902
Test Object	UE with XDMC, SIP/IP Core, Shared Profile XDMS
Test Case Description	Verify that an XDMC subscribes to changes in User Profile document and handles the notifications.  TEST CASE GOAL: Verify that a XDMC subscribes to document changes and handles the notification and the Shared Profile XDMS handles the subscription request and sends the notifications as required.
Specification Reference	[OMA_XDM_CORE] 6.1.2, 6.2.2 [OMA_XDM_PROF] 6
SCR Reference	XDM_Core-SUB-C-001-O, XDM_Core-SUB-C-002-O

ETR Reference	SUB-003
Tool	Not available.
Test code	Not available.
Preconditions	Equipment:     O 2 UEs (UE1 with User1 and UE2 with User2 credentials)
	o SIP/IP Core
	<ul> <li>Shared Profile XDMS</li> </ul>
	Prerequisite for this test:
	o XDM-2.0-int-0100 executes successfully.
	<ul> <li>Shared Profile XDMS has a User Profile document for User1.</li> </ul>
	<ul> <li>UE2 XDMC is authorised to subscribe changes in User1's documents.</li> </ul>
	<ul> <li>UE1 and UE2 are powered off.</li> </ul>
Test Procedure	1. UE1 is powered on.
	2. UE2 is powered on.
	3. UE2 subscribes to changes in the User Profile document of User 1.
	4. User1 changes its profile (one of the <user-information> elements) using UE1.</user-information>
Pass-Criteria	4. The change made to the User Profile is notified to UE2.

# 5.9.1.4 XDM-2.0-int-0903 Subscription to changes in User Access Policy documents (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-0903
Test Object	UE with XDMC, SIP/IP Core, Shared Policy XDMS
<b>Test Case Description</b>	Verify that an XDMC subscribes to changes in User Policy document and handles the notifications.
	TEST CASE GOAL: Verify that a XDMC subscribes to document changes and handles the notification and the Shared Policy XDMS handles the subscription request and sends the notifications as required.
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.1.2, 6.2.2
	[OMA_XDM_POLI] 6
SCR Reference	XDM_Core-SUB-C-001-O, XDM_Core-SUB-C-002-O, XDM_Core-XOP-C-001-M
ETR Reference	SUB-004
Tool	Not available.
Test code	Not available.

Preconditions	Equipment:
	o 2 UEs (UE1 with User1 and UE2 with User2 credentials)
	o Aggregation Proxy
	<ul> <li>Shared Policy XDMS</li> </ul>
	Prerequisite for this test:
	o XDM-2.0-int-0100 executes successfully.
	<ul> <li>Shared Policy XDMS has a document for User1 with the following values of <allow-invite> element: 0 for User2 (indicating "pass").</allow-invite></li> </ul>
	<ul> <li>Shared Policy XDMS has a document for User1.</li> </ul>
	<ul> <li>UE2 XDMC is authorised to subscribe changes in User1's documents.</li> </ul>
	<ul> <li>UE1 and UE2 are powered off.</li> </ul>
Test Procedure	1. UE1 is powered on.
	2. UE2 is powered on.
	3. UE2 subscribes to changes in the User Policy document of User 1.
	4. User1 on UE1 sets the access policy rule <allow-invite> element to 2 for User2 (indicating "accept").</allow-invite>
Pass-Criteria	4) The change made to the User Policy is notified to UE2.
	a) The contacts for User1 are displayed on UE1 with the following values of <allow-invite> element: 2 for User2 (indicating "accept").</allow-invite>
	b) The contacts for User1 are displayed on UE2 with the following values of <allow-invite> element: 2 for User2 (indicating "accept").</allow-invite>

# 5.9.1.5 XDM-2.0-int-0904 Subscription to changes in Group Usage List documents (Includes Optional Features)

Test Case Id	XDM-2.0-int-0904
Test Object	UE with XDMC, SIP/IP Core, Shared List XDMS
<b>Test Case Description</b>	Verify that an XDMC subscribes to changes in Group Usage List document and handles the notifications.
	TEST CASE GOAL: Verify that a XDMC subscribes to document changes and handles the notification and the Shared List XDMS handles the subscription request and sends the notifications as required.
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.1.2, 6.2.2
	[OMA_XDM_LIST] 6
SCR Reference	XDM_Core-SUB-C-001-O, XDM_Core-SUB-C-002-O
ETR Reference	LSU-002
Tool	Not available.
Test code	Not available.

Preconditions	Equipment:
	o 2 UEs (UE1 with User1 and UE2 with User2 credentials)
	o SIP/IP Core
	<ul> <li>Shared List XDMS</li> </ul>
	• Prerequisite for this test:
	o XDM-2.0-int-0100 executes successfully.
	<ul> <li>Shared List XDMS has a Group Usage List document for User1.</li> </ul>
	<ul> <li>Shared List XDMS has a Group document with name Group1.</li> </ul>
	<ul> <li>UE2 XDMC is authorised to subscribe changes in User1's documents.</li> </ul>
	<ul> <li>UE1 and UE2 are powered off.</li> </ul>
Test Procedure	1. UE1 is powered on.
	2. UE2 is powered on.
	3. UE2 subscribes to changes in the Group Usage List document of User 1.
	4. Group1 is added to the Group Usage List using UE1.
Pass-Criteria	4. The change made to the URI List is notified to UE2.

### 5.9.2 Error flow

Not available.

# 5.10 Search Proxy Test Cases

### 5.10.1 Normal flow

### 5.10.1.1 XDM-2.0-int-1000 Search request (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-1000
Test Object	UE with XDMC, Aggregation Proxy, Search Proxy, Shared Profile XDMS
<b>Test Case Description</b>	Verify the interoperability of entities supporting the Application Usage "org.openmobilealliance.search".
	TEST CASE GOAL: Verify that if a XDMC can make search requests and handle the responses, and other entities such as Aggregation Proxy, Search Proxy and Shared Profile XDMS collaborate to handle the search requests.
<b>Specification Reference</b>	[OMA_XDM_CORE] 5.4.1, 6.1.3, 6.2.3, 6.3.1.1, 6.4.1, 6.4.2
SCR Reference	XDM_Core-SRC-C-001-O, XDM_Core-SRC-C-002-O, XDM_Core-SRC-S-001-O
ETR Reference	SRC-001
Tool	Not available.
Test code	Not available.

Preconditions	Equipment:
	<ul> <li>UE (with User1 credentials)</li> </ul>
	o Aggregation Proxy
	<ul> <li>Search Proxy</li> </ul>
	<ul> <li>Shared Profile XDMS</li> </ul>
	Prerequisite for this test:
	<ul> <li>XDM-2.0-int-0100 executes successfully.</li> </ul>
	<ul> <li>There is a user (User2) which User1 wants to search that matches the search profile.</li> </ul>
	<ul> <li>UE1 is powered off.</li> </ul>
Test Procedure	1. UE1 is powered on.
	2. User1 submits a query to find users that have a given profile (Age, Gender, Intention, City or Country).
	3. XDMC forwards the query to the Search Proxy via the Aggregation Proxy.
	4. The Search Proxy routes the query to the Shared Profile XDMS based on the AUID.
	5. Shared Profile XDMS returns the results to the Search Proxy.
	6. The Aggregation Proxy returns the identifier of User 2 to the XDMC of UE1.
	7. UE1 displays the search result to User1.
Pass-Criteria	7. User1 can see the result with User2 data.

### 5.10.2 Error flow

# 5.10.2.1 XDM-2.0-int-1050 Invalid search request – no HTTP POST method (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-1050
Test Object	UE with XDMC, Aggregation Proxy, Search Proxy
<b>Test Case Description</b>	Verify that a Search Proxy provides error response back when using a method other than HTTP POST to do a search request.
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.4.1.1
SCR Reference	XDM_Core-SRC-C-001-O
ETR Reference	SRC-002
Tool	Not available.
Test code	Not available.

Preconditions	Equipment:
	UE (with User1 credentials)
	o Aggregation Proxy
	o Search Proxy
	Prerequisite for this test:
	o XDM-2.0-int-0100 executes successfully.
	<ul> <li>XDMC uses an HTTP method other than POST to submit search requests.</li> </ul>
Test Procedure	1. UE1 is powered on.
	2. User 1 submits a search to find User2 by a given profile (Age, Gender, Intention, City or Country).
	3. XDMC forwards the query to the Search Proxy via the Aggregation Proxy.
Pass-Criteria	3. Search Proxy rejects the request with an HTTP 405 (Method Not Allowed) error response.

# 5.10.2.2 XDM-2.0-int-1051 Invalid search request – invalid XML (Includes Optional Features for XDMC)

	<u> </u>		
Test Case Id	XDM-2.0-int-1051		
Test Object	UE with XDMC, Aggregation Proxy, Search Proxy		
<b>Test Case Description</b>	Verify that a Search Proxy provides error response back when the body of the search request is not a valid XML.		
Specification Reference	[OMA_XDM_CORE] 6.4.1.1		
SCR Reference	XDM_Core-SRC-C-001-O		
ETR Reference	SRC-002		
Tool	Not available.		
Test code	Not available.		
Preconditions	Equipment:         UE (with User1 credentials)         Aggregation Proxy         Search Proxy          Prerequisite for this test:         XDM-2.0-int-0100 executes successfully.         XDMC uses an invalid XML in the body of the search request.		
Test Procedure	<ol> <li>UE1 is powered on.</li> <li>User 1 submits a search to find User 2 by a given profile (Age, Gender, Intention, City or Country).</li> <li>XDMC forwards the query to the Search Proxy via the Aggregation Proxy.</li> </ol>		
Pass-Criteria	3. Search Proxy rejects the request with an HTTP 400 (Bad request) error response.		

# 5.10.2.3 XDM-2.0-int-1052 Invalid search request – no collection input function (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-1052		
Test Object	UE with XDMC, Aggregation Proxy, Search Proxy		
<b>Test Case Description</b>	Verify that a Search Proxy provides error response back when no collection input function is used in the body of the request.		
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.4.1.1		
SCR Reference	XDM_Core-SRC-C-001-O		
ETR Reference	SRC-002		
Tool	Not available.		
Test code	Not available.		
Preconditions	<ul> <li>Equipment:         <ul> <li>UE (with User1 credentials)</li> <li>Aggregation Proxy</li> <li>Search Proxy</li> </ul> </li> <li>Prerequisite for this test:         <ul> <li>XDM-2.0-int-0100 executes successfully.</li> <li>XDMC doesn't use a collection input function in the request body (XQuery expression).</li> </ul> </li> </ul>		
Test Procedure	<ol> <li>UE1 is powered on.</li> <li>User 1 submits a search to find User 2 by a given profile (Age, Gender, Intention, City or Country).</li> <li>XDMC forwards the query to the Search Proxy via the Aggregation Proxy.</li> </ol>		
Pass-Criteria	3. Search Proxy rejects the request with an HTTP 400 (Bad request) error response.		

# 5.10.2.4 XDM-2.0-int-1053 Invalid search request – invalid collection input function (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-1053			
Test Object	JE with XDMC, Aggregation Proxy, Search Proxy			
<b>Test Case Description</b>	Verify that a Search Proxy provides error response back when using an invalid collection input function in the request body.			
<b>Specification Reference</b>	OMA_XDM_CORE] 6.4.1.1			
SCR Reference	XDM_Core-SRC-C-001-O			
ETR Reference	SRC-002			
Tool	Not available.			
Test code	Not available.			

Preconditions	• Equipment:			
	UE (with User1 credentials)			
	o Aggregation Proxy			
	<ul> <li>Search Proxy</li> </ul>			
	• Prerequisite for this test:			
	o XDM-2.0-int-0100 executes successfully.			
	<ul> <li>XDMC uses a collection input function in the request body (XQuery expression) that is not recognized as known Application Usage.</li> </ul>			
Test Procedure	1. UE1 is powered on.			
	2. User 1 submits a search to find User 2 by a given profile (Age, Gender, Intention, City or Country).			
	3. XDMC forwards the query to the Search Proxy via the Aggregation Proxy.			
Pass-Criteria	3. Search Proxy rejects the request with an HTTP 409 (Conflict) error response.			

# 5.10.2.5 XDM-2.0-int-1054 Invalid search request – unknown user domain (Includes Optional Features for XDMC)

Test Case Id	XDM-2.0-int-1054			
Test Object	UE with XDMC, Aggregation Proxy, Search Proxy			
<b>Test Case Description</b>	Verify that a Search Proxy provides error response back when part of the collection function is not recognized as a known user domain.			
<b>Specification Reference</b>	[OMA_XDM_CORE] 6.4.1.1			
SCR Reference	XDM_Core-SRC-C-001-O			
ETR Reference	SRC-002			
Tool	Not available.			
Test code	Not available.			
Preconditions	Equipment:         UE (with User1 credentials)         Aggregation Proxy         Search Proxy          Prerequisite for this test:         XDM-2.0-int-0100 executes successfully.          XDMC uses a collection input function in the request body (XQuery expression) that is not recognized as known user domain.			
Test Procedure	<ol> <li>UE1 is powered on.</li> <li>User 1 submits a search to find User 2 by a given profile (Age, Gender, Intention, City or Country).</li> <li>XDMC forwards the query to the Search Proxy via the Aggregation Proxy.</li> </ol>			

Pass-Criteria	3.	Search Proxy rejects the request with an HTTP 409 (Conflict) error
		response.

# **5.11 Compression Test Cases**

- 5.11.1 Normal flow
- **5.11.2** Error flow

Not available.

# **5.12 Backwards Compatibility Test Cases**

- 5.12.1 Normal flow
- 5.12.2 Error flow

Not available.

# Appendix A. Change History

# (Informative)

# A.1 Approved Version History

Reference	Date	Description	
n/a	n/a	No prior version –or- No previous version within OMA	

# A.2 Draft/Candidate Version 2.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ETS-XDM_INT-V2_0	09 Jan 2007	All	Based on the template and the ETS from XDM V1.0. Checked for XDM V1.0 test case applicability.
	26 Jan 2007	All	Removed XDM V1.0 test cases and replaced by references to XDM V1.0 ETS. Added XDM V2.0 test cases.
	19 Jun 2007	n/a	IOP-MEC agreed draft
	28 Jan 2008	All	Implemented CRs:
			OMA-IOP-MEC-2007-0164R01
			OMA-IOP-MEC-2007-0165
			OMA-IOP-MEC-2007-0167
			OMA-IOP-MEC-2007-0168
			OMA-IOP-MEC-2007-0169R01
			OMA-IOP-MEC-2007-0170
	01 Aug 2008	5.	CR incorporated:
			OMA-IOP-MEC-2008-0129
	16 Dec 2008	All	Splitted ETS in interoperability and conformance.
	28 Jul 2009	n/a	Editorial updates
Candidate Versions OMA-ETS-XDM_INT-V2_0	18 Aug 2009	n/a	TP approval: OMA-TP-2009-0349-INP_XDM_2.0_ETS_for_Candidate_approval