Enabler Test Specification for Instant Messaging using SIMPLE Interoperability

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1. Scope

This document describes in detail available test cases for Instant Messaging using SIMPLE V2.0, (http://www.openmobilealliance.org).

The test cases are split in two categories, conformance and interoperability test cases. This document covers interoperability test cases only.

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

2. References

2.1 Normative References

[3GPP_TS26141] "IP Multimedia System (IMS) Messaging and Presence; Media formats and codecs", TS 26.141, V6.1.0 (2005-03), URL: http://www.3gpp.org/

[ERELD] "Enabler Release Document for IM SIMPLE", Version 1.0, Open Mobile Alliance™, OMA-ERELD-SIMPLE_IM-V1_0, URL: http://www.openmobilealliance.org/

[IOPPROC] "OMA Interoperability Policy and Process", Version 1.11, Open Mobile Alliance™, OMA-IOP-Process-V1_11, URL: http://www.openmobilealliance.org/

[OMA_IM_AD] "Instant Messaging using SIMPLE Architecture", Version 1.0, Open Mobile Alliance™, OMA-AD-SIMPLE_IM-V1_0, URL: http://www.openmobilealliance.org/

[OMA_IM_RD] "Instant Messaging Requirements", Version 1.0, Open Mobile Alliance™, OMA-RD-IM-V1_0, URL: http://www.openmobilealliance.org/

[OMA_IM_TS] "Instant Messaging using SIMPLE", Version 1.0, Open Mobile Alliance™, OMA-TS-SIMPLE_IM-V1_0, URL: http://www.openmobilealliance.org/

[OMA_IM_XDM] "IM XDM Specification", Version 1.0, Open Mobile Alliance™, OMA-TS-IM_XDM-V1_0, URL: http://www.openmobilealliance.org/

[RFC2119] "Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL:http://www.ietf.org/rfc/rfc2119.txt

2.2 Informative References

[OMA_DM] "OMA Device Management", Version 1.2 , Open Mobile Alliance™, OMA-ERP-DM-V1_2, URL: http://www.openmobilealliance.org/

[OMA_Pres] "OMA Presence Simple", Version 1.0, Open Mobile Alliance™, OMA-ERP-Presence_SIMPLE-V1_0, URL: http://www.openmobilealliance.org/

[OMA_X1] "OMA XML Document Management", Version 1.0, Open Mobile Alliance™, OMA-ERP-XDM-V1_0, URL: http://www.openmobilealliance.org/

[OMA_X2] "OMA XML Document Management", Version 2.0, Open Mobile Alliance™, URL: http://www.openmobilealliance.org/

Work in progress.

[OMADICT] "Dictionary for OMA Specifications", Version x.y, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_9, URL:http://www.openmobilealliance.org/

[RFC3261] "SIP: Session Initiation Protocol", J. Rosenberg et al, June 2002, URL: http://www.ietf.org/rfc/rfc3261.txt

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-con-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
’con’	Indicating this test is a conformance test case
number	Leap number for the test case

Or

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

1-to-1 IM Session	One user communicates with a single user. It includes Peer-to-Peer, and Ad-hoc Group Session with only two participants.
Ad-hoc Group Session	An IM session for multiple users that does not involve the use of predefined groups. The list of users for the Ad hoc Group Session is created dynamically and is disbanded after the Ad hoc Group session ends.
Chat Alias	A name defined by a user to describe his preferred identity in a chat room. A Chat Alias serves as a temporary, routable identity of an IM User who wants to keep his real identity anonymous from other IM participants in a chat room, and MUST be unique in a particular chat room. Chat alias consist of two parts, Display name part and a URL part. The Display Name part may be temporarily modified by the IM Server to ensure that the Chat Alias is unique within a chat session.
Conference	A multi-party conversation with a central point of control, also called a chat session in SIMPLE IM.
Controlling IM Server	A SIP application server responsible for IM Service functionality in the network side. Function of the Controlling IM Server relates to group communication, e.g., acting as a focus in an IM Session.
Conversation	An ordered exchange of immediate messages in the context of a session between users.
Conversation History	A record of a user's IM communication during all modes of operation (Pager, Large message, and Session modes). The Conversation History includes both the messages exchanged as well as supplementary descriptive information (e.g., topics and time of communication).
Conversation History Function	Conversation History Function provides the capabilities to manage storage, retrieval and manipulation (e.g., delete, rename) of conversation histories including obtaining descriptive information about conversations.
Deferred Message	If an intended recipient of an IM pager-mode or large mode message communication is not available, either due to the recipient's Inbox settings or the recipient being IM offline, the message is stored in the IM server for later delivery (i.e., the IM becomes deferred message).
Event Package	A specification for a set of events to be used with subscription and notification. The event package defines the semantics of the notification message body and of subscriptions to that event. Event packages are defined in [RFC3265].
File Transfer	A one-way transfer of data between entities in real-time fashion. The Session ends when the data has been transferred.
Group	A group is a nested collection of addresses or identifiers such as an address or record called as Group Members, and other information related to the group. A group is identified by a single address called Group Identity.
Group Advertisement	A message advertising a Group to Users. A Group Advertisement typically informs Users about a new Group and contains information about how to get access to the Group.
Group Session	A session at which two or more users participate.
History	Stored conversation, which may also be called Conversation History. There are two types of data related to the history: metadata and the actual conversation.
IM Address	An IM Address identifies an IM User. The IM Address can be used by one IM User to request communication with other IM Users.
IM Client	An IM Service endpoint; The device used by an IM User.
IM Server	A network entity that provides messaging service.
IM Service	The instant message offering presented by a service provider that utilizes the IM Enabler and potentially other enablers.
IM Session Identity	SIP URI received by the IM Client during the IM Session establishment in the Contact header.
Instant Message (IM)	A message delivered to a user in an instant, interactive manner. Generally short, even brief. Instant Messages are often called IMs. IMs are often exchanged back-and-forth between users in a conversational fashion. Defined in [RFC2778]. In other words, a type of messaging service by which the sender expects immediate message delivery in (near) real time fashion.
Invited IM User	An IM User receiving invitation or has been invited to an IM Session.

Inviting IM Client	An IM Client either initiating or triggering initiation of the IM Session.
Joining IM Client	An IM Client joining in a Group Session.
Large Message Mode	This mode is used to send a single large instant message using MSRP. Since MSRP is used, a SIP session must be established, but it is torn down after the single message is transmitted.
Notification	A message, delivered in response to a subscription, which delivers information about an associated event in the format defined by the relevant event package. Defined in [RFC3265].
Pager Mode Message	A small size, one-shot message from an IM User to other IM User(s). SIP MESSAGE is used for carrying the message.
Participating IM Server	A SIP application server responsible for IM Service functionality in the network side. Function of the Participating IM Server relates to either originating or terminating user. The Participating IM Server is responsible for e.g. access control for a user.
Pre-defined Group	A Group whose members are permanently stored in XDMS before the actual group communication starts. The IM Server creates the IM Group Session according to the definition in the group, e.g., when the creator of the group definition joins in, the IM Server may invite other users to the IM Group Session.
Public Conference	A Pre-defined Group that is uniquely identified by a URI. A Public Conference is usually hosted by a Service Provider which creates, maintains and manipulates the conferencing features.
Session	A stateful association of presence and other user preference, capability and identity data through which it is possible to communicate immediate messages. A session may be established between IM users or between an IM user and an IM Server.
Session based messaging	A type of IMS Messaging service by which the sender expects immediate message delivery in (near) real time fashion. In addition the sender(s) and the receiver(s) have to join to a messaging session e.g. chat room, before message exchange can take place [3GPP TS 22.340].
SIMPLE	A methodology and set of extensions to SIP supporting the Instant Messaging requirements defined by IETF.
SIP Session	A SIP Session is a SIP dialog. From [RFC 3261], a SIP dialog is defined as follows: A dialog is a peer-to-peer SIP relationship between two UAs that persists for some time. A dialog is established by SIP messages, such as a 2xx response to an INVITE request.
Subscription	A persistent relation between a subscriber and an event source (often a presence server for a presentity) by which the subscriber requests notifications of a specific even for a set duration. Defined in [RFC3265].
System	Assembly of entities comprising a whole with each and every element interacting or related to one another.
System Message	A special type of message sent by the IM Server for different purposes (e.g. advice of charge, service notifications, advertisements, instructions, etc). System Messages MAY contain a list of possible options and require actions or response from the user.
TestFest	Multi-lateral interoperability testing event
URI-list	A list of URIs issued by an IM Client to IM Server for exploding a SIP request to URIs contained in the list. The IM Client uses a URI-list for either creating an Ad-hoc Group Session or exploding a one-shot message to multiple recipients. The IM Server takes care of sending individual requests to URIs.
User	A human using the described features through a terminal device.

3.3 Abbreviations

Note: Abbreviations defined in the OMA Dictionary complements this section.

4. Introduction

The purpose of this document is to provide test cases for Instant Messaging using SIMPLE Enabler Release V2.0 as well as 1.0. Those test cases which are associated with Simple Enabler Release v2.0 only have been clearly identified.

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

5. IM Interoperability Test Cases

5.1 Session Mode Messaging

5.1.1 IM-2.0-int-101 – Establish 1-to-1 IM Session

Test Case Id	IM-2.0-int-101
Test Object	IM Client, IM Server
Test Case Description	Verify that the Inviting IM Client is able to establish a 1-to-1 IM Session with the Invited IM Client as well as exchanges of messages.
Specification Reference	[OMA_IM_TS] 7.1.1.2, 7.2
SCR Reference	IMSpec-SMM-C-001-M, IMSpec-SMM-S-001-M
ETR Reference	SMM-001
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client has the other as a contact. (optional) o Each client appears online to the other. (optional)
Test Procedure	1. Client A invites Client B to a 1-to-1 IM Session. 2. Client B accepts the invitation to the 1-to-1 IM Session. 3. Client A sends the message “Hello B” to Client B. 4. Client B replies with “Hello A”.
Pass-Criteria	At step 1, the invitation sent by Client A was successfully accepted by Client B. At step 2, a 1-to-1 IM Session begins between Clients A and B. At step 3, Client B receives “Hello B” from Client A. At step 4, Client A receives “Hello A” from Client B.

Table 1: Test Information for Establishing 1-to-1 IM Session Interoperability Test

5.1.2 IM-2.0-int-102 – IM Ad-hoc Conference

Test Case Id	IM-2.0-int-102
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to establish an Ad-hoc IM Conference and invited participants are able to join the Conference and exchange messages.
Specification Reference	[OMA_IM_TS] 7.1.1.3, 7.2.1.2
SCR Reference	IMSpec-SMM-C-002-M, IMSpec-SMM-S-004-M, IMSpec-SMM-S-007-M
ETR Reference	SMM-002
Tool	Not Available
Test code	Not Available

Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Clients B and C as contacts). (optional) o Each client appears online to the other clients. (optional)
Test Procedure	1. Client A invites Clients B and C to an Ad-hoc IM Conference. 2. Clients B and C accept the invitation to the Ad-hoc IM Conference. 3. Client A sends the message “Hello B C” to the Ad-hoc Conference. 4. Client B sends the message “Hello A C” to the Ad-hoc Conference. 5. Client C sends the message “Hello A B” to the Ad-hoc Conference.
Pass-Criteria	At step 1, Clients B and C accept the invitation to the Ad-hoc IM Conference. At step 2, an Ad-hoc IM Conference begins between Clients A, B and C. At step 3, Clients B and C receive “Hello B C” from Client A. At step 4, Clients A and C receive “Hello A C” from Client B. At step 5, Clients A and B receive “Hello A B” from Client C.

Table 2: Test Information for IM Ad-hoc Conference Interoperability Test

5.1.3 IM-2.0-int-103 – Pre-defined IM Conference

Test Case Id	IM-2.0-int-103
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to join a Pre-defined IM Conference and is able to exchange messages.
Specification Reference	[OMA_IM_TS] 7.1.1.4, 7.2.1.3
SCR Reference	IMSpec-SMM-C-003-M, IMSpec-SMM-S-005-M
ETR Reference	SMM-003
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o Server has IM Group 1. o Clients A, B and C are members of IM Group 1. o All clients are logged in the IMS network. o Each client has IM Group 1 as a contact. (optional) o Each client appears online to the other clients. (optional)

Test Procedure	1. A Pre-Defined IM Conference is created by Client A. 2. Client A invites IM Group 1 to a Pre-defined IM Conference. 3. Clients B and C accept the invitation to the Pre-defined IM Conference. 4. Client A sends the message “Hello B C” to the Pre-defined Conference. 5. Client B sends the message “Hello A C” to the Pre-defined Conference. 6. Client C sends the message “Hello A B” to the Pre-defined Conference.
Pass-Criteria	At step 2, Clients B and C accept the invitation to the Pre-defined Conference. At step 3, a Pre-defined IM Conference begins between Clients A, B and C. At step 4, Clients B and C receive “Hello B C” from Client A. At step 5, Clients A and C receive “Hello A C” from Client B. At step 6, Clients A and B receive “Hello A B” from Client C.

Table 3: Test Information for Pre-defined IM Conference Interoperability Test

5.1.4 IM-2.0-int-104 – Joining a Chat Room

Test Case Id	IM-2.0-int-104
Test Object	IM Client, IM Server
Test Case Description	Verify that when joining a chat room with a Chat Alias, the chat room ensures that the Chat Alias is unique. The joining client later leaves the chat room.
Specification Reference	[OMA_IM_TS] 7.1.1.10, 7.1.1.15, 7.2.3.2
SCR Reference	IMSpec-SMM-C-004-M, IMSpec-MSRP-S-001-M
ETR Reference	SMM-004
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o Server contains an open IM Chat Group called ‘ChatRoom1’. o All clients are logged in the IMS network.

Test Procedure	1. Client A joins the ChatRoom1 Conference using 'ChatAliasX' as an alias. 2. Client B joins chat group 'ChatRoom1'. 3. Client C tries to join 'Chatroom1' using the alias 'ChatAliasX'. 4. Client C joins 'Chatroom1' using the alias 'ChatAliasY'. 5. Client A sends "Hello from A" to the chat room. 6. Client B sends the message "Hello from B" to the chat room. 7. Client C sends the message "Hello from C" to the chat room. 8. Client A leaves chat group 'ChatRoom1'. 9. Client B tries to send a message to Client C.
Pass-Criteria	At step 3, the alias 'ChatAliasX' is already in use by Client A so Client C fails to join 'Chatroom1'. At step 5, Clients B and C receive "Hello from A" from 'ChatAliasX'. At step 6, Clients A and C receive "Hello from B" from Client B. At step 7, Clients A and B receive "Hello from C" from Client 'ChatAliasY'. At step 9, Clients B and C can no longer send and receive messages from 'ChatRoom1'.

Table 4: Test Information for Joining a Chat Room Interoperability Test

5.1.5 IM-2.0-int-105 – Sending Private Message

Test Case Id	IM-2.0-int-105
Test Object	IM Client, IM Server
Test Case Description	Verify that Private Message(s) can be sent and received in a Conference session.
Specification Reference	[OMA_IM_TS] 7.2.3.4, 7.1.1.1
SCR Reference	IMSpec-SMM-C-021-M, IMSpec-MSRP-S-002-M
ETR Reference	SMM-006
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Clients B and C as contacts). (optional) o Clients appears online to the other clients. (optional) o Clients A, B and C have an ongoing IM Conference (type does not matter).
Test Procedure	1. Client A sends a private message "Private 1" to Client B. 2. Client B sends a private message "Private 2" to Client A.

Pass-Criteria	At step 1, Client B receives “Private 1” from Client A. At step 2, Client A receives “Private 2” from Client B. At steps 1 and 2, Client C does not see private messages between Clients A and B.

Table 5: Test Information for Sending Private Message Interoperability Test

5.1.6 IM-2.0-int-106 – Adding Users to an IM Conference

Test Case Id	IM-2.0-int-106
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to add users to the existing IM Conference session.
Specification Reference	[OMA_IM_TS] 7.1.1.7, 7.2.2.7, 7.2.1.7
SCR Reference	IMSpec-SMM-C-007-M, IMSpec-SMM-S-011-M
ETR Reference	SMM-007
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Four clients (A, B, C, and D) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Clients B, C and D as contacts). (optional) o Each client appears online to the other clients. (optional) o Clients A, B and C have an ongoing IM Conference.
Test Procedure	1. Client A invites Client D to the ongoing Conference. 2. Client D accepts invitation to Conference. 3. Client D sends the message “New Member” to the Conference.
Pass-Criteria	At step 1, Client D receives the invitation to the IM Conference. (OPTIONAL) Clients B and C are notified that Client D has joined the Conference. At step 3, Clients A, B and C receive “New Member” from Client D.

Table 6: Test Information for Adding Users to an IM Conference Interoperability Test

5.1.7 IM-2.0-int-107 – Extending 1-to-1 to 1-to-Many

Test Case Id	IM-2.0-int-107
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to add additional users to start or join a 1-to-Many Session and that the initial 1-to-1 Session is converted to Ad-hoc Conference.
Specification Reference	[OMA_IM_TS] 7.1.1.6, Appendix L
SCR Reference	IMSpec-SMM-C-008-M
ETR Reference	SMM-008

Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Clients B and C as contacts). (optional) o Each client appears online to the other clients. (optional) o Clients A and B have an ongoing 1-to-1 IM Session.
Test Procedure	1. Client A invites Client C to the 1-to-1 IM Session. 2. Client C accepts the invitation to the 1-to-1 IM Session. 3. Client C sends “Now we are 3” to the Ad-hoc Conference. 4. Client B sends “Now we are in Ad-hoc Conference”
Pass-Criteria	At step 1, Client C receives the invitation to the 1-to-1 IM Session. (OPTIONAL) Client B is recognizes Client C joined the IM Session. At step 3, Clients A and B receive the message “Now we are 3” from Client C. At step 4, Clients A and C receive the message “Now we are in Ad-hoc Conference”.

Table 7: Test Information for Extending 1-to-1 to 1-to-Many Interoperability Test

5.1.8 IM-2.0-int-108 – Expelling a User from a Session

Test Case Id	IM-2.0-int-108
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Server is able to remove a user from an IM Session.
Specification Reference	[OMA_IM_TS] 7.1.1.14, 7.2.2.12
SCR Reference	IMSpec-SMM-C-009-M
ETR Reference	SMM-009
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Clients B and C as contacts). (optional) o Each client appears online to the other clients. (optional) o Clients A, B and C have an ongoing IM Conference (type does not matter) which was initiated by Client A.
Test Procedure	1. The initiator of the Conference (Client A) removes Client C from the IM Conference. 2. Client C attempts to send the message “Hello” to the IM Conference.

Pass-Criteria	At step 1, Client C is no longer in the IM Conference. (OPTIONAL) Clients A and B are notified that Client C is no longer in the IM Conference. At step 2, Client C is unable to send the "Hello" message to the IM Conference.

Table 8: Test Information for Expelling a User from a Session Interoperability Test

5.1.9 IM-2.0-int-109 – Rejoining a Group Messaging Session (Includes Optional Features)

Test Case Id	IM-2.0-int-109
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to rejoin an Ad-hoc IM Conference.
Specification Reference	[OMA_IM_TS] 7.1.1.9, 7.2.1.5
SCR Reference	IMSpec-SMM-C-015-O, IMSpec-SMM-S-010-M
ETR Reference	None
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Clients B and C as contacts). (optional) o Each client appears online to the other clients. (optional)
Test Procedure	1. Client A invites Clients B and C to an Ad-hoc IM Conference. 2. Clients B and C accept the invitation to the Ad-hoc IM Conference. 3. Client A sends the message "Hello B C" to the Ad-hoc Conference. 4. Client B sends the message "Hello A C" to the Ad-hoc Conference. 5. Client C sends the message "Bye A B" to the Ad-hoc Conference. 6. Client C hangs up. 7. Client C rejoins the Ad-hoc Conference.
Pass-Criteria	At step 1, Clients B and C accept the invitation to the Ad-hoc IM Conference. At step 2, an Ad-hoc Conference begins between Clients A, B and C. At step 3, Clients B and C receive "Hello B C" from Client A. At step 4, Clients A and C receive "Hello A C" from Client B. At step 5, Clients A and B receive "Bye A B" from Client C. At step 6, Clients A and B are informed that Client C has left the Conference. At step 7, Clients A and B are informed that Client C has joined the Conference.

Table 9: Test Information for Rejoining a Group Messaging Session Interoperability Test

5.2 Pager Mode Messaging

5.2.1 IM-2.0-int-201 – Sending a Page Mode Message to a User

Test Case Id	IM-2.0-int-201
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to send a Page Mode Message to a user.
Specification Reference	[OMA_IM_TS] 8.1.1
SCR Reference	IMSpec-PMM-C-001-M
ETR Reference	PMM-001
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client has the other as a contact. (optional) o Each client appears online to the other. (optional)
Test Procedure	1. Client A sends “Hello 1” to Client B.
Pass-Criteria	At step 1, Client B receives “Hello 1” from Client A.

Table 10: Test Information for Sending a Page Mode Message to a User Interoperability Test

5.2.2 IM-2.0-int-202 – Sending a Page Mode Message to a Group

Test Case Id	IM-2.0-int-202
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to send a Page Mode Message to a Pre-defined Group.
Specification Reference	[OMA_IM_TS] 8.1.1
SCR Reference	IMSpec-PMM-C-003-M
ETR Reference	PMM-002
Tool	Not Available
Test code	Not Available

Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o Server has IM Group 1. o Clients A, B and C are members of IM Group 1. o All clients are logged in the IMS network. o Each client has IM Group 1 as a contact. (optional) o Each client appears online to the other clients. (optional)
Test Procedure	1. Client A sends “Hello Group 1” to IM Group 1.
Pass-Criteria	At step 1, Clients B and C receive “Hello Group 1” from Client A.

Table 11: Test Information for Sending a Page Mode Message to a Group Interoperability Test

5.2.3 IM-2.0-int-203 – Sending a Page Mode Message to Multiple Users

Test Case Id	IM-2.0-int-203
Test Object	IM Client, IM Server
Test Case Description	Test that the IM Client is able to send a Page Mode Message to multiple users using a URI-List (Ad-hoc-Group) and the receiving clients are able to receive the message.
Specification Reference	[OMA_IM_TS] 8.1.1
SCR Reference	IMSpec-PMM-C-002-M
ETR Reference	PMM-003
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Client B and C as contacts). (optional) o Each client appears online to the other clients. (optional)
Test Procedure	1. Client A sends “Hello Ad-hoc Group” to Clients B and C.
Pass-Criteria	At step 1, Clients B and C receive “Hello Ad-hoc Group” from Client A.

Table 12: Test Information for Sending a Page Mode Message to Multiple Users Interoperability Test

5.2.4 IM-2.0-int-204 – IM Server Sending System Message (Includes Optional Features)

Test Case Id	IM-2.0-int-204
Test Object	IM Client, IM Server
Test Case Description	Test that the IM Server is able to send system messages to its users.
Specification Reference	[OMA_IM_TS] 5.4
SCR Reference	IMSpec-SM-S-001-O

ETR Reference	PMM-004
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o One client (A) and one server • State: o Client A is logged in the IMS network. o Client A is online. (optional)
Test Procedure	1. The server sends a system message.
Pass-Criteria	At step 1, Client A receives the system message.

Table 13: Test Information for IM Server Sending System Message Interoperability Test

5.3 Large Message Mode

5.3.1 IM-2.0-int-301 – Sending Large Message to One User

Test Case Id	IM-2.0-int-301
Test Object	IM Client, IM Server
Test Case Description	Test if the IM Client is able to send a large message to one user.
Specification Reference	[OMA_IM_TS] 9.1.1.2
SCR Reference	IMSpec-LMM-C-001-M
ETR Reference	LMM-001
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o All clients are logged in the IMS network. o Each client appears online to the other client. (optional)
Test Procedure	1. Client A sends a multimedia message to Client B.
Pass-Criteria	At step 1, Client B receives the multimedia message from Client A.

Table 14: Test Information for Sending Large Message to One User Interoperability Test

5.3.2 IM-2.0-int-302 – Sending a Large Message to a Pre-defined Group

Test Case Id	IM-2.0-int-302
Test Object	IM Client, IM Server
Test Case Description	Test if the IM Client is able to send a large message a Pre-defined Group.
Specification Reference	[OMA_IM_TS] 9.1.1.2
SCR Reference	IMSpec-LMM-C-003-M

ETR Reference	LMM-002
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o Server has IM Group 1. o Clients A, B and C are members of IM Group 1. o All clients are logged in the IMS network. o Each client has IM Group 1 as a contact. (optional) o Clients appear online to the other clients. (optional)
Test Procedure	1. Client A sends a multimedia message to IM Group 1.
Pass-Criteria	At step 1, Clients B and C receive the multimedia message from Client A.

Table 15: Test Information for Sending a Large Message to a Pre-defined Group Interoperability Test

5.3.3 IM-2.0-int-303 – Sending a Large Message to an Ad-hoc Group

Test Case Id	IM-2.0-int-303
Test Object	IM Client, IM Server
Test Case Description	Test if the IM Client is able to send a large message to an Ad-hoc Group.
Specification Reference	[OMA_IM_TS] 9.1.1.2
SCR Reference	IMSpec-LMM-C-002-M
ETR Reference	LMM-003
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Clients B and C as contacts). (optional) o Each client appears online to the other clients. (optional)
Test Procedure	1. Client A sends a multimedia message to Clients B and C.
Pass-Criteria	At step 1, Clients B and C receive the multimedia message from Client A.

Table 16: Test Information for Sending a Large Message to an Ad-hoc Group Interoperability Test

5.4 Deferred Messages

5.4.1 IM-2.0-int-401 – Retrieving Deferred Message Metadata

Test Case Id	IM-2.0-int-401

Test Object	IM Client, IM Server
Test Case Description	Test that the IM Client is able to retrieve Deferred Message metadata.
Specification Reference	[OMA_IM_TS] 12.1.2
SCR Reference	IMSpec-DM-C-001-M, IMSpec-DM-C-004-M
ETR Reference	DM-001
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to the other client. (optional) o There are no stored messages for Clients A and B.
Test Procedure	1. Client B disables offline delivery via the UI. 2. Client B goes offline. 3. Client A sends an IM message to Client B. 4. Client B goes online. This will result in the metadata being pushed to Client B by the IM Server.
Pass-Criteria	At step 4, Client B retrieves the Deferred Message metadata.

Table 17: Test Information for Retrieving Deferred Message Metadata Interoperability Test

5.4.2 IM-2.0-int-402 – Deferred Message Pushed to an IM Client

Test Case Id	IM-2.0-int-402
Test Object	IM Client, IM Server
Test Case Description	Verify that Deferred Messages are automatically pushed to the IM Client when the client comes back online.
Specification Reference	[OMA_IM_TS] 12.2.2.5
SCR Reference	IMSpec-DM-S-003-M
ETR Reference	DM-002
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to the other client. (optional) o There are no stored messages for Clients A and B.

Test Procedure	1. Client B enables offline delivery via the UI. 2. Client B goes offline. 3. Client A sends more than one message to Client B. 4. Client B goes online. This will result in the stored messages being pushed to Client B by the IM Server.
Pass-Criteria	At step 4, Client B receives stored messages.

Table 18: Test Information for Deferred Messages Pushed to an IM Client Interoperability Test

5.4.3 IM-2.0-int-403 – IM Client Retrieves Deferred Messages (Includes Optional Features)

Test Case Id	IM-2.0-int-403
Test Object	IM Client, IM Server
Test Case Description	Test the IM Client is able to retrieve one Deferred Message, some selected Deferred Messages and all Deferred Messages.
Specification Reference	[OMA_IM_TS] 12.1.1
SCR Reference	IMSpec-DM-C-002-O, IMSpec-DM-C-003-M
ETR Reference	DM-003
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to the other client. (optional) o Client B disables offline delivery. o There are no stored messages for Clients A and B.
Test Procedure	1. Client B goes offline. 2. Client A sends one message to Client B. 3. Client B goes online. 4. Client B retrieves the stored message. 5. Client B goes offline. 6. Client A sends five messages to Client B. 7. Client B goes online. 8. Client B selects second of five Deferred Messages. 9. Client B retrieves the second selected Deferred Messages. 10. Client B goes offline. 11. Client A sends three messages to Client B. 12. Client B goes online. 13. Client B retrieves all Deferred Messages.

Pass-Criteria	At step 4, Client B retrieves the initial Deferred Message. At step 9, Client B retrieves the contents of second of five Deferred Messages. At step 13, Client B retrieves the remaining seven Deferred Messages.

Table 19: Test Information for IM Client Retrieves Deferred Messages Interoperability Test

5.4.4 IM-2.0-int-404 – Deleting Deferred Messages

Test Case Id	IM-2.0-int-404
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to delete one Deferred Message, some Deferred Messages and all Deferred Messages. Deferred Message metadata is updated when each Deferred Message function procedure occurs.
Specification Reference	[OMA_IM_TS] 12.1.3.2, 12.1.3.3, 12.1.3.4
SCR Reference	IMSpec-DM-C-005-M
ETR Reference	DM-004
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to each other. (optional) o Client B disables offline delivery. o There are no stored messages for Clients A and B.
Test Procedure	1. Client B goes offline. 2. Client A sends ten messages to Client B. 3. Client B goes online. 4. Client B selects first of ten messages and deletes it. 5. Client B selects first four of the remaining messages and deletes them. 6. Client B chooses to delete all remaining messages.
Pass-Criteria	At step 2, Client B has ten Deferred Messages. At step 3, Client B is notified of the awaiting messages. At step 4, Client B has nine Deferred Messages. At step 5, Client B has five Deferred Messages. At step 6, Client B has zero Deferred Message.

Table 20: Test Information for Deleting Deferred Messages Interoperability Test

5.4.5 IM-2.0-int-405 – Storing Deferred Messages

Test Case Id	IM-2.0-int-405
Test Object	IM Client, IM Server

Test Case Description	Verify that a message is deferred when a recipient is unavailable, and that Deferred Messages are stored and their corresponding metadata are updated in IM XDMS.
Specification Reference	[OMA_IM_TS] 12.2.2.3
SCR Reference	IMSpec-DM-S-001-M
ETR Reference	DM-005
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to each other. (optional) o There are no stored messages for Clients A and B.
Test Procedure	1. Client B disables offline delivery. 2. Client B goes offline. 3. Client A sends one IM message to Client B. 4. Client B goes online. 5. Client B retrieves the Deferred Message.
Pass-Criteria	At step 1, Client B does not get stored messages pushed when online. At step 3, one message is stored for Client B. At step 4, Client B retrieves the Deferred Message metadata. At step 5, Client B has the Deferred Message.

Table 21: Test Information for Storing Deferred Messages Interoperability Test

5.5 Conversation History

5.5.1 IM-2.0-int-501 – Invoking IM History function (Optional Feature)

Test Case Id	IM-2.0-int-501
Test Object	IM Client, IM Server
Test Case Description	Test if the IM Client can invoke IM history.
Specification Reference	[OMA_IM_TS] 13.1.1
SCR Reference	IMSpec-HIST-C-001-O
ETR Reference	HIST-001
Tool	Not Available
Test code	Not Available

Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients support the Conversation History feature. o IM SP has a reliable system for Conversation History management. o IM SP must have enough storage space for all conversations of all users. o Both clients are logged in the IMS network. o Each client appears online to each other. (optional)
Test Procedure	1. Client A invites Client B to a 1-to-1 IM Session. 2. Client B accepts the invitation to the 1-to-1 IM Session. 3. Client A sends “Message 1”. 4. Client B replies with “Message 2”. 5. Client A invokes the Conversation History Function. 6. Client A is prompted to enter a conversation file name. 7. Client A enters filename “conversationX”. 8. Client A sends “Message 3”. 9. Client B sends “Message 4”. 10. Client A terminates the recording of the ongoing IM Session. 11. Client A sends “Message 5”. 12. Client B sends “Message 6”. 13. Client A terminates the IM Session. 14. Client A retrieves the stored conversation.
Pass-Criteria	At step 8, the text “Message 3” is stored. At step 9, the text “Message 4” is stored. At step 10, no more messages are being stored in the conversation file. At step 14, the stored conversation is located in the file (i.e., conversationX) and contains the text “Message 3” and “Message 4” from steps 8 and 9.

Table 22: Test Information for Invoking IM History function Interoperability Test

5.5.2 IM-2.0-int-502 – Terminate Recording (Includes Optional Features)

Test Case Id	IM-2.0-int-502
Test Object	IM Client, IM Server
Test Case Description	Test if the IM Client is able to terminate an ongoing recording of an IM Session.
Specification Reference	[OMA_IM_TS] 13.1.2
SCR Reference	IMSpec-HIST-C-002-O
ETR Reference	HIST-002
Tool	Not Available
Test code	Not Available

Preconditions	• Equipment: o Two clients (A and B) / one server • State: o Both clients support the Conversation History feature. o IM SP has a reliable system for Conversation History management. o IM SP must have enough storage space for all conversations of all users. o Both clients are logged in the IMS network. o Each client appears online to each other. (optional)
Test Procedure	1. Client A invites Client B to a 1-to-1 IM Session. 2. Client B accepts the invitation to the 1-to-1 IM Session. 3. Client A sends “Message 1”. 4. Client B replies with “Message 2”. 5. Client A invokes the Conversation History Function. 6. Client A is prompted to enter a conversation file name. 7. Client A enters filename “conversationY”. 8. Client A sends “Message 3”. 9. Client B sends “Message 4”. 10. Client A terminates the recording of the ongoing IM Session. 11. Client A sends “Message 5”. 12. Client B sends “Message 6”. 13. Client A terminates the IM Session. 14. Client A retrieves the stored conversation.
Pass-Criteria	At step 8, the text “Message 3” is stored. At step 9, the text “Message 4” is stored. At step 10, no more messages are being stored. At step 14, the stored conversation is located in the file (i.e., conversationY) and contains the text “Message 3” and “Message 4” from steps 8 and 9.

Table 23: Test Information for Terminate Recording Interoperability Test

5.5.3 IM-2.0-int-503 – Retrieving an IM History (Includes Optional Features)

Test Case Id	IM-2.0-int-503
Test Object	IM Client, IM Server
Test Case Description	Test if the IM Client is able to retrieve an IM history.
Specification Reference	[OMA_IM_TS] 13.1.3
SCR Reference	IMSpec-HIST-C-003-O
ETR Reference	HIST-003
Tool	Not Available
Test code	Not Available

Preconditions	• Equipment: o One client (A) and one server • State: o Client A supports the Conversation History feature. o IM SP has a reliable system for Conversation History management. o IM SP must have enough storage space for all conversations of all users. o Client A is logged in the IMS network. o Test IM-2.0-int-501 or IM-2.0-int-502 has been run just before starting this test.
Test Procedure	1. Client A opens the IM history feature. 2. Client A requests the list with all stored conversations. 3. Client A selects “conversationX”. 4. Client A gets “conversationX”. 5. Client A opens the stored conversation.
Pass-Criteria	At step 2, a list of stored conversations is shown to Client A. At step 5, Client A can read the contents of the conversation.

Table 24: Test Information for Retrieving an IM History Interoperability Test

5.5.4 IM-2.0-int-504 – Retrieving History Metadata (Optional Feature)

Test Case Id	IM-2.0-int-504
Test Object	IM Client, IM Server
Test Case Description	Test if the IM Client is able to retrieve an history metadata.
Specification Reference	[OMA_IM_TS] 13.1.4
SCR Reference	Not Available
ETR Reference	HIST-004
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o One client (A) and one server • State: o Client A supports the Conversation History feature. o Client A is logged in the IMS network. o Client A is online. (optional)
Test Procedure	1. Client A opens the IM history feature. 2. Client A requests the history metadata.
Pass-Criteria	At step 2, the history metadata for stored messages is shown.

Table 25: Test Information for Retrieving History Metadata Interoperability Test

5.5.5 IM-2.0-int-505 – Deleting IM Conversation (Includes Optional Features)

Test Case Id	IM-2.0-int-505
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to delete one or more, or all IM history conversation messages. IM conversation message metadata is updated when each IM history function procedure occurs.
Specification Reference	[OMA_IM_TS] 13.2.5
SCR Reference	IMSpec-HIST-C-004-O , IMSpec-HIST-S-006-O
ETR Reference	HIST-005
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients support the Conversation History feature. o IM SP has a reliable system for Conversation History management. o IM SP must have enough storage space for all conversations of all users. o Both clients are logged in the IMS network. o Each client appears online to each other. (optional)
Test Procedure	1. Client A invites Client B to a 1-to-1 IM Session. 2. Client B accepts the invitation to the 1-to-1 IM Session. 3. Client A invokes the Conversation History Function. 4. Client A sends “Message 1”. 5. Client B replies with “Message 2”. 6. Client A terminates the recording of the ongoing IM Session. 7. Repeat steps 3 to 6 until Client A has at least five stored conversations. 8. Client A requests the history metadata. 9. Client A deletes first stored conversation. 10. Client A request the history metadata. 11. Client A deletes first two of remaining stored conversations. 12. Client A requests the history metadata. 13. Client A deletes the remaining stored conversations. 14. Client A requests the history metadata.

Pass-Criteria	At step 9, Client A has four stored conversations. At step 10, Client A has four history elements. At step 11, Client A has two stored conversations. At step 12, Client A has two history elements. At step 13, Client A has no stored conversations. At step 14, Client A has no history elements.

Table 26: Test Information for Deleting IM Conversation Interoperability Test

5.6 File Transfer

5.6.1 IM-2.0-int-601 – File Transfer Request of One File (Includes Optional Features)

Test Case Id	IM-2.0-int-601
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client can send a file transfer request that consists of a file to another user.
Specification Reference	[OMA_IM_TS] 10
SCR Reference	IMSpec-FT-C-001-O, IMSpec-FT-C-002-O, IMSpec-FT-C-003-O
ETR Reference	FT-001
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to each other. (optional) o There is active 1-to-1 IM session between Clients A and B. o Clients A and B's UI provides some indicator of all incoming file transfer requests.
Test Procedure	1. Client A selects Client B from the contact list. 2. Client A selects File Transfer. 3. Client A selects a file to send. 4. Client A attempts to sends the file. 5. The file transfer notification is not acknowledged by the Client B. 6. Later Client B notices that a file transfer was missed. 7. Client B sends a file transfer request to Client A for the file that was not received earlier. 8. Client B waits for the file transfer to complete.
Pass-Criteria	At step 8, Client B can open the file and view the content.

Table 27: Test Information for File Transfer Request of One File Interoperability Test

5.6.2 IM-2.0-int-602 – File Transfer Request of Multiple Files (Includes Optional Features)

Test Case Id	IM-2.0-int-602
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client can send a file transfer request to another user that consists of multiple files.
Specification Reference	[OMA_IM_TS] 10
SCR Reference	IMSpec-FT-C-001-O, IMSpec-FT-C-002-O, , IMSpec-FT-C-003-O
ETR Reference	FT-001
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to each other. (optional) o There is active 1-to-1 IM session between Clients A and B. o Clients A and B's UI provides some indicator of all incoming file transfer requests.
Test Procedure	1. Client A selects Client B from the contact list. 2. Client A selects File Transfer. 3. Client A selects more than one file to send. 4. Client A attempts to send the files. 5. The file transfer notifications are not acknowledged by the Client B. 6. Later Client B notices that file transfers were missed. 7. Client B sends a file transfer request to Client A for the files that were not received earlier. 8. Client B waits for the file transfers to complete.
Pass-Criteria	At step 8, Client B can open the files and view the contents.

Table 28: Test Information for File Transfer Request of Multiple Files Interoperability Test

5.6.3 IM-2.0-int-603 – Sending One File to One User Outside an IM Session (Includes Optional Features)

Test Case Id	IM-2.0-int-603
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client can send one file to one user. This file transfer does not occur in an IM Session.
Specification Reference	[OMA_IM_TS] 10
SCR Reference	IMSpec-FT-C-001-O, IMSpec-FT-C-002-O

ETR Reference	FT-003
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to each other. (optional)
Test Procedure	1. Client A selects Client B from the contact list. 2. Client A selects a file and sends it to Client B. 3. Client B accepts the file transfer. 4. Client B waits for the file transfer to complete.
Pass-Criteria	At step 4, Client B can open the file and view its contents.

Table 29: Test Information for Sending One File to One User Outside an IM Session Interoperability Test

5.6.4 IM-2.0-int-604 – Sending One File to One User in an IM Session (Includes Optional Features)

Test Case Id	IM-2.0-int-604
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client can send one file to one user during a 1-to-1 IM Session.
Specification Reference	[OMA_IM_TS] 10
SCR Reference	IMSpec-FT-C-001-O, IMSpec-FT-C-002-O
ETR Reference	FT-003
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Two clients (A and B) and one server • State: o Both clients are logged in the IMS network. o Each client appears online to each other. (optional)
Test Procedure	1. Client A selects Client B from the contact list. 2. Client A invites Client B to a 1-to-1 IM Session. 3. Client A sends the text “Sending you a file” to Client B. 4. Client A selects a file and sends it. 5. Client B accepts the file transfer. 6. Client B waits for the file transfer to complete.
Pass-Criteria	At step 6, Client B can open the file and view its contents.

Table 30: Test Information for Sending One File to One User in an IM Session Interoperability Test

5.6.5 IM-2.0-int-605 – Sending One File to Many Users Outside an IM Session (Includes Optional Features)

Test Case Id	IM-2.0-int-605
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client can send a file to multiple users outside an IM Session.
Specification Reference	[OMA_IM_TS] 10
SCR Reference	IMSpec-FT-C-001-O, IMSpec-FT-C-002-O
ETR Reference	FT-002
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client appears online to each other. (optional)
Test Procedure	1. Client A selects Clients B and C from the contact list. 2. Client A selects File Transfer. 3. Client A selects a file to send. 4. Client A sends the file. 5. Clients B and C accept the file transfer. 6. Clients B and C wait for the file transfer to complete.
Pass-Criteria	At step 6, Clients B and C can open the file and view the content.

Table 31: Test Information for Sending One File to Many Users Outside an IM Session Interoperability Test

5.6.6 IM-2.0-int-606 – One File to Many Users in an IM Session (Includes Optional Features)

Test Case Id	IM-2.0-int-606
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client is able to select a gallery item and then send the file in the group messaging session.
Specification Reference	[OMA_IM_TS] 10
SCR Reference	IMSpec-FT-C-001-O, IMSpec-FT-C-002-O, IMSpec-FT-C-003-O
ETR Reference	FT-002, FT-003
Tool	Not Available
Test code	Not Available

Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client has the other clients as contacts (e.g., Client A has Clients B and C as contacts). (optional) o Each client appears online to the other clients. (optional)
Test Procedure	1. Client A invites Clients B and C to an Ad-hoc IM Conference. 2. Clients B and C accept the invitation to the Ad-hoc IM Conference. 3. Client A sends the message “Hello B C” to the Ad-hoc Conference. 4. Client B sends the message “Hello A C” to the Ad-hoc Conference. 5. Client C sends the message “Sending a picture” to the Ad-hoc Conference. 6. Client C selects one image file (e.g., BMP, JPG, etc.) and sends it.
Pass-Criteria	At step 2, an Ad-hoc Conference begins between Clients A, B, and C. At step 3, Clients B and C receive “Hello B C” from Client A. At step 4, Clients A and C receive “Hello A C” from Client B. At step 5, Clients A and B receive “Sending a picture” from Client C. At step 6, Clients A and B receive the image file. Clients A and B can open the file and view the image.

Table 32: Test Information for One File to Many Users in an IM Session Interoperability Test

5.6.7 IM-2.0-int-607 – Sending Many Files to Many Users Outside an IM Session (Includes Optional Features)

Test Case Id	IM-2.0-int-607
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client can send multiple files to multiple users outside an IM Session.
Specification Reference	[OMA_IM_TS] 10
SCR Reference	IMSpec-FT-C-001-O, IMSpec-FT-C-002-O
ETR Reference	FT-002, FT-003
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client appears online to each other. (optional)

Test Procedure	1. Client A selects Clients B and C from the contact list. 2. Client A selects File Transfer. 3. Client A selects more than one file to send. 4. Client A sends the files. 5. Clients B and C accept the file transfers. 6. Clients B and C wait for the file transfers to complete.
Pass-Criteria	At step 6, Clients B and C can open the files and view the content.

Table 33: Test Information for Sending Many Files to Many Users Outside an IM Session Interoperability Test

5.6.8 IM-2.0-int-608 – Sending Many Files to Many Users in an IM Session (Includes Optional Features)

Test Case Id	IM-2.0-int-608
Test Object	IM Client, IM Server
Test Case Description	Verify that the IM Client can send multiple files to multiple users in an IM Session.
Specification Reference	[OMA_IM_TS] 10
SCR Reference	IMSpec-FT-C-001-O, IMSpec-FT-C-002-O
ETR Reference	FT-002, FT-003
Tool	Not Available
Test code	Not Available
Preconditions	• Equipment: o Three clients (A, B, and C) and one server • State: o All clients are logged in the IMS network. o Each client appears online to each other. (optional)
Test Procedure	1. Client A selects Clients B and C from the contact list. 2. Client A invites Clients B and C to an Ad-hoc Conference. 3. Client A sends “Sending some files” to the Conference. 4. Client A selects more than one file and sends them. 5. Clients B and C accept the file transfers. 6. Clients B and C wait for the file transfers to complete.
Pass-Criteria	At step 6, Clients B and C can open the files and view the content.

Table 34: Test Information for Sending Many Files to Many Users in an IM Session Interoperability Test

Appendix A. Change History (Informative)

A.1 Approved Version History

Reference	Date	Description
OMA-ETS-SIMPLE_IM_INT-V1_0-20090904-C	04 Sep 2009	Candidate Version

A.2 Draft/Candidate Version 2.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ETS-SIMLE_IM_INT-V2_0	16 Feb 2012	All	First Draft
	23 Apr 2012	All	CR incorporated: OMA-IOP-MEC-2012-0041R02
Candidate Version OMA-ETS-SIMLE_IM_INT-V2_0	03 Jun 2014	n/a	Status changed to Candidate by TP TP Ref # OMA-TP-2014-0131-INP_SIMPLE_IM_V2_0_INT_ETS_for_Candidate_approval