



# OMA PoC Endorsement of OMA IM TS

Candidate Version 2.1 – 22 Dec 2009

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**Open Mobile Alliance**

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# 1. Scope

This document contains an endorsement of OMA IM Instant Messaging using SIMPLE document for the Discrete Media transmission of the Push to talk over Cellular (PoC) service.

## 2. References

### 2.1 Normative References

- [OMA-IM-TS] "Instant Messaging using SIMPLE", Version 1.0 (2008-09-03), Open Mobile Alliance™, OMA-TS-SIMPLE\_IM-V1\_0-20080903-C  
URL: <http://www.openmobilealliance.org/>
- [OMA-POC-AD] "Push to talk over Cellular (PoC) – Architecture", Version 2.1, Open Mobile Alliance™, OMA-AD-PoC-V2\_1,  
URL: <http://www.openmobilealliance.org/>
- [OMA-POC-CP] "OMA PoC Control Plane Document", Version 2.1, Open Mobile Alliance™, OMA-TS-PoC\_ControlPlane-V2\_1,  
URL: <http://www.openmobilealliance.org/>
- [OMA-POC-UP] "OMA PoC User Plane Document", Version 2.1, Open Mobile Alliance™, OMA-TS-PoC\_UserPlane-V2\_1,  
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>
- [RFC4234] "Augmented BNF for Syntax Specifications: ABNF". D. Crocker, Ed., P. Overell. October 2005,  
URL: <http://www.ietf.org/rfc/rfc4234.txt>

### 2.2 Informative References

- [OMADICT] "Dictionary for OMA Specifications", Version 2.6, Open Mobile Alliance™, OMA-ORG-Dictionary-V2\_6,  
URL: <http://www.openmobilealliance.org/>

## 3. Terminology and Conventions

### 3.1 Conventions

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119].

All sections and appendices, except “Scope” and “Introduction”, are normative, unless they are explicitly indicated to be informative.

### 3.2 Definitions

For the purposes of the present document, the terms and definitions used in the [OMADICT], [OMA-IM-TS], [OMA-POC-AD] and [OMA-POC-CP] apply.

### 3.3 Abbreviations

For the purposes of the present document, the abbreviations used in the [OMADICT], [OMA-IM-TS], [OMA-POC-AD] and [OMA-POC-CP] apply.

## 4. Introduction

This specification contains the endorsement of [OMA-IM-TS] document for Discrete Media transmission in the Push to talk over Cellular (PoC) service on the POC-3, POC-4, POC-10, POC-12 reference points as specified in [OMA-POC-AD] and it is intended to be used together with [OMA-POC-CP] and [OMA-POC-UP].

This specification introduces the possibility for Participants in a PoC Session to share Discrete Media (e.g. audio clips, video clips) or transferring files between each other.

The document is structured in the following way:

Clause 5: "*Endorsement*" contains the endorsement of [OMA-IM-TS] document.

Appendix A: "*Change History*" describes the document version history.

Appendix B: "*Static conformance requirements (SCR)*" is a normative annex containing tables of mandatory and optional features.

### 4.1 Version 2.0

The PoC version 2.0 Enabler Control Plane procedures extend Control Plane procedures described in [OMA-PoC-CP-2.0] and User Plane procedures in [OMA-PoC-UP-2.0] by adding signalling procedures described in [OMA-PoC-SD-2.0].

This specification defines the procedures for the following features:

- Session based messaging; and,
- File transfer.

NOTE: Pager mode messaging as defined in [OMA-IM-TS] is not part of this specification.

### 4.2 Version 2.1

The PoC version 2.1 Enabler Control Plane procedures extend Control Plane procedures described in [OMA-PoC-CP] and User Plane procedures in [OMA-PoC-UP] by adding signalling procedures described in [OMA-PoC-SD].

This specification defines the procedures for the following features:

- Procedures for the PoC Client to reference Media stored in an EMCS.

NOTE: Pager mode messaging as defined in [OMA-IM-TS] is not part of this specification.

## 5. Endorsement

This clause provides an endorsement of [OMA-IM-TS] for Discrete Media transmission.

### 5.1 General

The following rules are used when applying the subclauses of the [OMA-IM-TS] apart from the subclause 1, 2 and 3:

- 1. replace "IM Session" with "Discrete Media used in PoC Session"
- 2. replace "IM Conference Session" with "Discrete Media used in PoC Session"
- 3. replace "IM Conference" with "Discrete Media used in PoC Session"
- 4. replace "IM conference Server" with "PoC Server performing the Controlling PoC Function"
- 5. replace "IM Server acting as a MSRP Switch" with "PoC Server performing the Controlling PoC Function"
- 6. replace "Conference Server" with "PoC Server"
- 7. replace "IM" with "PoC"
- 8. replace "Controlling Server" with "PoC Server performing the Controlling PoC Function"
- 9. replace "Controlling Function" with "PoC Server performing the Controlling PoC Function"
- 10. replace "section" with "subclause"
- 11. replace "IMSpec" with "PoCIMSPEC"

In cases where the [OMA-IM-TS] text cannot be endorsed by a set of rules, the whole subclause is copied to this document and the changes are marked as follows:

- the removed text is marked by strikethrough font
- the added text is marked by underline font

Any statement valid for PoC Client applies to PoC Box too.

### 5.2 Subclause endorsement

[OMA-IM-TS] subclauses are endorsed as follows:

NOTE: The rules defined in the subclause 5.1 "*General*" are applied when the [OMA-IM-TS] subclauses are applicable.

Document title changes to "OMA PoC Discrete Media using OMA Instant Messaging".

Clause 1 "*Scope*" in [OMA-IM-TS] does not apply and is replaced by the clause 1 "*Scope*" in the present document.

Clause 2 "*References*" in [OMA-IM-TS] applies and is extended with the references in subclause 2 "*References*" of this document.

Clause 3 "*Terminology and Conventions*" in [OMA-IM-TS] applies and is extended with the terms and definitions in subclause 3 "*Terminology and Conventions*" of this document.

Clause 4 "*About Messaging Services*" in [OMA-IM-TS] does not apply.

Clause 5 "*Common Procedures*" in [OMA-IM-TS] applies as follows:



- clause headline applies.
  
- subclause 5.1 "Authenticated Originator's IM Address" applies and is modified as follows:
  - subclause heading applies;
  - the subclause text is replaced by the following text:
    - Authenticated Originator's PoC Address is specified in [OMA-PoC-CP] "Authenticated Originator's PoC Address".
  
- subclause 5.5 "Display name" applies and is modified as follows:
  - subclause heading applies;
  - the subclause text is replaced by the following text:
    - The Nick Name is specified in the [OMA-PoC-CP] "Nick Name".
  
- subclause 5.6 "Warning header" applies and is modified as follows:
  - subclause heading applies;
  - the subclause text is replaced by the following text:
    - The Warning header is specified in the [OMA-PoC-CP] "Warning header".
  
- subclause 5.7 "Final Delivery Repor" applies and is modified as follows:
  - subclause heading applies;
  - the subclause text is replaced by the following text:
    - The Discrete Media reports are specified in [OMA-PoC-UP] "Discrete Media Transfer Final Report" and [OMA-PoC-UP] "Discrete Media Transfer Progress Report"
  
- other subclauses of clause 5 "Common Procedures" do not apply.

Clause 6 "Procedures At The Im Server" in [OMA-IM-TS] applies as follows:

- clause headline applies.
  
- subclause 6.1 "Participating IM Functions procedures" headline applies.
  
- subclause 6.1.1 "Originating Participating Function" headline applies.
  
- subclause 6.1.1.1 "General" applies and is modified as follows:
  - subclause heading applies;
  - the initial line and the bullets 4. and 4.a. of the received SIP request handling apply, other bullets of the received SIP request handling do not apply;
  - the initial line and all the bullets of the received SIP 200 "OK" final response handling do not apply;

- the initial line and all the bullets of the received SIP final response other than SIP 200 "OK" handling do not apply;
- the statement stating the behaviour with the SIP/IP Core corresponding with 3GPP/3GPP2 IMS applies.
  
- subclause 6.1.1.3 "*Pager Mode Messaging*" headline applies.
  
- subclause 6.1.1.3.1 "*Receiving SIP MESSAGE request for Pager mode*" applies and is modified as follows:
  - subclause heading applies;
  - the initial line and the bullets 1., 2., 3. of the received SIP request handling apply, other bullets of the received SIP request handling do not apply;
  - the received SIP final response handling applies;
  - the text related to IM user's history setting "his-settings" does not apply;
  - the statement stating the behaviour with the SIP/IP Core corresponding with 3GPP/3GPP2 IMS applies.
  
- subclause 6.1.2 "" headline applies.
  
- subclause 6.1.2.1 "*Terminating Participating Function*" applies and is modified as follows:
  - subclause heading applies;
  - the initial line and the bullets 3., 3.a. and 4. of the received SIP request handling apply, other bullets of the received SIP request handling do not apply;
  - the received SIP final response handling applies;
  - the statement stating the behaviour with the SIP/IP Core corresponding with 3GPP/3GPP2 IMS applies.
  
- subclause 6.1.2.3 headline applies.
  
- subclause 6.1.2.3.1 "*Receiving SIP MESSAGE request*" applies and is modified as follows:
  - subclause heading applies;
  - the initial line, the bullet 1. of the received SIP request handling and the NOTE apply, other bullets of the received SIP request handling do not apply;
  
- subclause 6.1.3 "*User Plane*" applies.
  
- other subclauses of clause 6 "*Procedure at the IM Server*" do not apply.

Clause 7 "*Im Sessions*" in [OMA-IM-TS] applies as follows:

- clause headline applies.
  
- subclause 7.1 "*IM Client procedures for IM Sessions*" headline applies.

- subclause 7.1.3 "User Plane" headline applies.
- subclause 7.1.3.1 "General" applies and is modified as follows:
  - subclause heading applies;
  - the 2<sup>nd</sup> bullet applies, other bullets do not apply;
- subclause 7.1.3.2 "Generating MSRP requests in an IM Session" applies:
- subclause 7.1.3.2.1 "Generating MSRP requests in an IM Conference" applies and is modified as follows:
  - subclause heading applies;
  - the initial line applies;
  - the bullet 1. applies
  - the bullet 2. applies and is modified as follows:
    - 2. when the IMPoC User wants to send the request to all the Participants of the Discrete Media used in PoC Session~~IM Conference~~, The "To" header of the message/CPIM wrapper SHALL be set to the IM Group Identity in case of Pre-defined Group and PoCIM Session Identity in case of Ad-hoc Group;
  - the bullet 4. applies and is modified as follows:
    - 4. The "From" header of the message/CPIM wrapper SHALL be set to the value of the entity attribute of the <user> element, which has "yourown" attribute extension as defined in Appendix M "Conference Event Package", in the SIP NOTIFY response received from subscribing to conference event package. ~~If "yourown" attribute extension is not available, the "From" header of the Message/CPIM SHALL be set to the value of the entity attribute of the <user> element belonging to the User as defined in [RFC4575], if the PoC User requested privacy;~~
  - after the bullet 4. another bullet 4a. is inserted as follows:
    - 4a. the "From" header of the message/CPIM wrapper SHALL be set to the PoC Address of the PoC User, if the PoC User did not request privacy;
  - the bullet 5. applies
  - the bullet 6. applies and is modified - the reference is changed to 5.7 "Final Delivery Report";
  - other bullets do not apply;
- subclause 7.1.3.3 "Receiving MSRP requests in an IM Conference Session" applies and is modified as follows:
  - subclause heading applies;
  - the 1<sup>st</sup> paragraph does not apply;
  - 2<sup>nd</sup> paragraph applies and is modified - the reference is changed to 5.7 "Final Delivery Report".
- subclause 7.2 "IM Controlling Functions for IM sessions" headline applies.
- subclause 7.2.3 "User plane" headline applies.
- subclause 7.2.3.1 "MSRP Switch" applies and is modified as follows:

## 7.2.3.1 MSRP Switch

MSRP switch functions in a similar way as a conference mixer because it handles media sessions with each of the participants and bridges these streams together. However, unlike a conference mixer, the MSRP switch merely relays messages between participants but doesn't actually mix the streams in any way. Each conference participant establishes MSRP Session with the MSRP Switch.

In a ~~group session /IM conference~~ PoC Session, the ~~MSRP~~ msrp switch

- SHALL support media type message/cpim
  - SHALL maintain mappings of PoC Session ~~IM conference~~ participants' msrp sessions with their corresponding user identities (PoC Address, Nick name ~~SIP, display name~~), SDP attributes such as max-size, etc within a duration of an active session
  - ~~SHALL check the 'From' header of the message/cpim in each MSRP SEND against the identity of the sender in its mapping table, and if the 'From' header of the message/cpim corresponds to the sender's identity in the mapping table, the msrp switch shall relay message to intended recipient(s), otherwise reject the message as described in 7.2.3.3 "Receiving and Sending messages in an IM conference"~~
  - ~~SHALL allow the use of anonymity to keep participants real SIP URI identities hidden in the PoCIM conference without downgrading participant's services as defined in 7.2.3.2 "Chat Alias in an IM Conference"~~
  - SHALL relay or distribute received message to the entire participants of the PoC Session ~~IM conference~~ as defined in 7.2.3.3 "Receiving and Sending messages in an ~~PoCIM~~ conference"
  - ~~SHALL support sending of Private messages as define in 7.2.3.4 "Receiving and Sending Private messages in an IM conference"~~
  - SHOULD start relaying the MSRP chunks once the message/cpim wrapper information is received.
- subclause 7.2.3.3 "Receiving and Sending messages in an IM conference Server" applies and is modified as follows:
    - subclause heading applies;
    - the initial line of the received MSRP request handling apply;
    - the bullet 1. of the received MSRP request handling apply;
    - the bullet 2 including subbullets of the received MSRP request handling applies and is modified as follows:
      - 2. The ~~PoCIM~~ Server SHALL check the "To" header field(s) of the Message/CPIM of a MSRP request.
        - If the "To" header field(s) contains the ~~PoCIM Session Identity or IM Group Identity~~, the ~~PoCIM~~ Server SHALL consider the request as a message to be distributed to all Participants of the ~~IM Conference Session~~ Discrete Media used in PoC Session, otherwise continue at step 3. The ~~PoCIM~~ Server:
          - a) SHALL check if the "max-size" SDP attribute ~~was negotiated by a PoC Client using the Discrete Media of SDP had been received from the invited IM user in the SIP 200 OK response to the invite~~. If it has not been ~~negotiated~~ received, the ~~PoCIM~~ Server will continue processing. If it has been ~~negotiated~~ received, the ~~PoCIM~~ Server SHALL compare the "max-size" value with the total size of the message received in the Byte-Range parameter in a SEND request of a chunked message.
            - i. If the total message size is larger than the "max-size", the ~~PoCIM~~ Server shall not the send the message to this particular ~~invited PoCIM Client~~ user and SHALL indicate that a Failure report is to be returned to the sender.
          - b) SHALL send the MSRP request to ~~PoCIM~~ Address of each Participant of the ~~IM Conference Session~~ Discrete Media used in PoC Session except the sender user's ~~PoCIM~~ Address as follows:
            - The PoC Server inserts the "From" header into the Message/CPIM of the body of the received MSRP request, if not there;
            - The PoC Server sets the value of the "From" header of the Message/CPIM
              - a) to the PoC Address of the sending PoC Client and Nick Name of the sending PoC Client as specified in [OMA-POC-CP] "Nick Name", if privacy was not requested at the PoC Session initiation or modification; or,

- b) to the Anonymous PoC Address of the sending PoC Client as specified in [OMA-POC-CP] "Anonymous PoC Address" and the Nick Name of the sending PoC Client as specified in [OMA-POC-CP] "Nick Name", if privacy was requested at the PoC Session initiation or modification.
  - The PoC Server sends the modified SEND request;
  - ~~The IM Server SHALL copy the originally received SEND request and SHALL not modify the body included in the original MSRP SEND request.~~ The IMPoC Server should start distributing the MSRP request once received the message/CPIM wrapper information.
  - If the "To" header field(s) does not contains the PoC Session Identity, the PoC Server SHALL reject the request with MSRP 403 response and does not continue with the rest of steps;
  - other bullets of the received MSRP request handling do not apply;
  - the 2<sup>nd</sup> paragraph applies and is modified - the reference is changed to 5.7 "Final Delivery Report".
- other subclauses of clause 7 "IM Sessions" do not apply.

Clause 8 "*Im Pager Mode*" in [OMA-IM-TS] applies as follows

- clause headline applies.
  - subclause 8.1 "*Originating Client Procedures*" applies and is modified as follows:
    - subclause heading applies;
    - 1<sup>st</sup> paragraph including the bullet list applies;
    - other paragraphs do not apply.
  - subclause 8.1.1 "*Sending SIP MESSAGE for Pager Mode*" applies and is modified as follows:
    - subclause heading applies;
    - the initial line of the received SIP request handling applies;
    - the bullets 2., 3.,4. and NOTE 1 of the received SIP request handling apply,
    - The initial text for bullet 6 and subbullet 6a. applies and is modified as follows:
    - 6. If the message is to be sent to a subset of the Participants more than one IM user, then the PoC Client SHALL;
      - a. include a MIME resource-list body with the PoC Addresses of the receiving ParticipantsIM Users as specified in [RFC5365].
    - Add the following NOTE below the subbullet 6a.
- NOTE: Anonymous PoC Addresses obtained from Participant Information can be used.
- No other subbullets apply.
- the bullet 8 of the received SIP request handling applies and is modified as follows:
    - ~~7. If the message is to be sent to the Participants of an on-going Session other than an IM Session, the Client:~~
      - SHALL set the Request-URI of the SIP MESSAGE request to the PoCSIP Session Identity of the on-going PoC Session;
  - the bullets 9. Applies.
  - the bullet 10. apply of the received SIP request handling apply,
  - other bullets of the received SIP request handling do not apply;
  - the statement stating the behaviour with the SIP/IP Core corresponding with 3GPP/3GPP2 IMS applies;
  - NOTE 2 and NOTE 3 applies.

- subclause 8.2 "*Terminating Client procedures*" headline applies.
- subclause 8.2.1 "*IM Client receives SIP MESSAGE*" applies and is modified as follows:
  - subclause heading applies;
  - the initial line and the bullets 1., 5. and 6. of the received SIP request handling apply; other bullets of the received SIP request handling do not apply;
  - The NOTE applies;
  - the initial line and all the bullets of the 2<sup>nd</sup> paragraph apply; and,
  - the statement stating the behaviour with the SIP/IP Core corresponding with 3GPP/3GPP2 IMS applies;
- subclause 8.3 "*Controlling Server procedures for Pager Mode*" headline applies.
- subclause 8.3.1 "*Requests Terminated at the Controlling Function*" headline applies.
- subclause 8.3.1.1 "*Receiving SIP MESSAGE request for group communication*" applies and is modified as follows:
  - subclause heading applies;
  - the initial line of the received SIP request handling apply;
  - the following NOTE is inserted after the initial line
 

NOTE: In PoC 2 this subclause covers also the 1-1 message transfer case, when PoC Client sends a SIP MESSAGE during a PoC Session.
  - the bullet 3 of the received SIP request handling applies and is modified as follows:
    - 3. SHALL check if the received PoC Session Identity is that of an on-going PoC Session known by the PoC Server ~~If the SIP MESSAGE received is destined for an on-going SIP Session and~~ ~~and~~ ~~if not, then it will return a SIP 403 "Forbidden" response; Otherwise, continue with the rest of the steps;~~
  - the bullet 4. of the received SIP request handling applies;
  - the bullet 6. of the received SIP request handling applies and is modified as follows:
    - 7. SHALL, if the ~~SIP MESSAGE was received for an adhoc group and~~ anonymity is requested, check whether anonymity ~~was negotiated by the sending Participant at the PoC Session initiation~~ is allowed by the IM server. If not ~~allowed~~ negotiated, the ~~PoC-IM~~ PoC-IM Server SHALL respond with a SIP 403 "Forbidden" error response to the originating network network with the warning text set to '119 Anonymity not allowed' as specified in subclause 5.6 "Warning header". Otherwise, continue with the rest of the steps.
  - the bullets 9. and 12. of the received SIP request handling apply;
  - other bullets of the received SIP request handling do not apply; and,
  - the statement stating the behaviour with the SIP/IP Core corresponding with 3GPP/3GPP2 IMS applies;
- subclause 8.3.1.2 "*Receiving a Delivery Notification*" applies.
- subclause 8.3.1.3 "*Delivery Notification Aggregation Timer Expired*" applies.

- subclause 8.3.1.4 "Receiving SIP Failure response" applies.
- subclause 8.3.2 "Requests Originated by the Controlling Function" headline applies.
  - subclause 8.3.2.1 "SIP MESSAGE requests" applies and is modified as follows:
    - subclause heading applies;
    - the initial line of the received SIP request handling applies and is modified as follows:
 

When the ~~IM~~PoC Server sends a SIP MESSAGE request, the PoC~~IM~~ Server:
    - the bullets 1., 5., 6. including subbullets of the received SIP request handling apply;
    - include the following NOTE below the bullet 6
 

NOTE:           Anonymous PoC Addresses are mapped to the real PoC Address by the PoC Server.
    - the bullet 7. of the received SIP request handling applies and is modified as follows:
      - 7. SHALL perform ~~one of the following if the SIP MESSAGE is to be sent to more than one IM User:~~
    - the bullet 7.c. of the received SIP request handling apply;
    - other bullets of the received SIP request handling do not apply;
    - the statement stating the behaviour with the SIP/IP Core corresponding with 3GPP/3GPP2 IMS applies;
  - other subclauses of clause 8 "IM Pager Mode" do not apply.

Clause 9 "Im Large Message Mode" in [OMA-IM-TS] does not apply.

Clause 10 "File Transfer" in [OMA-IM-TS] applies as follows:

- clause headline applies.
- subclause 10.1 "File Transfer" applies and is modified as follows:

#### 10.1 File Transfer with the extended SDP information

When an ~~IM~~PoC Client receives instruction to send one or more files or to request one or more files with the extended SDP information, the PoC~~IM~~ Client:

- 1. If the file is to be transferred during an ongoing session, SHALL send a re-INVITE as described in [OMA-PoC-CP] "PoC Client PoC Session modification" ~~7.2.1.6 "IM session Modification"~~ with the description of the file to be transferred in the SDP ~~as described in~~ according to rules and procedures of [draft-mmusic-file-transfer-mech];
- 2. If there is no ongoing session, SHALL follow the procedures defined in [OMA-PoC-CP] "PoC Client PoC Session modification" ~~7.1.1.2 "Establishment of a one to one session"~~ if the file transfer is to one recipient or in 7.1.1.3 "IM Client initiates an Ad Hoc Conference" ~~if the file transfer is to a list of recipients, or in 7.1.1.4 "IM Client initiates a Pre-Defined IM Conference"~~ if the file transfer is to a pre-defined group and with the description of the file to be transferred in the SDP according to rules and procedures of [draft -mmusic-file-transfer-mech-];
- 3. SHALL add media attribute to the SDP settings as specified in [draft-mmusic-file-transfer-mech]
- 4. If more than one file is attached/~~r~~Requested, each set of file descriptors SHALL be separated as described in [draft-mmusic-file-transfer-mech]

After the PoC Session initiation or the PoC Session modification successfully finishes, the PoC Client sends the file using the appropriate Discrete Media MSRP transport:

~~5. When the 200 OK response for the last MSRP SEND of a file transferring Discrete Media is received, the PoCIM Client SHALL continue close the MSRP session for that particular file transfer by setting the m line to zero i.e. m=0, according to the procedures defined in 10.2 "File Transfer Session Release".~~

- subclause 10.2 "File Transfer Session Release" applies and is modified as follows:

#### 10.2 File Transfer with the extended SDP information Session Release

When a ~~f~~File with the extended SDP information has been transferred, the ~~PoCIM~~ Client

- 1. MAY start a timer for a suitable amount of time to (e.g. 30 seconds) determine if instruction to send another file with the extended SDP information or series of files with the extended SDP information to the same destination will be received from the PoCIM User, unless it is already running due to another previously finished file transferring with the extended SDP information Discrete Media of the same PoC Session. If the PoC Client does not receive the instruction till the timer expires, the PoC Client SHALL remove the file transferring Discrete Media from the PoC Session; or
- 2. MAY remove the file transferring Discrete Media from the PoC Session immediately.

When the PoC Client removes the file transferring Discrete Media from the PoC Session, the PoC Client:

If the timer set by the client expires, the IM Client

- SHALL release the PoC session as specified in [OMA-POC-CP] "PoC Client leaving a PoC Session" send SIP BYE, if there is no other used Media Stream in the PoC Session had been only the MSRP file or the MSRP file is the last remaining media stream in the SDP file; or,
- SHALL disconnect from all the file transferring Discrete Media that have already been transferred by PoC Session modification as specified in [OMA-POC-CP] "PoC Client PoC Session modification" send re-INVITE to set the media line to zero i.e. m=0 of the MSRP file that has been transferred, if there is any other used Media Stream than the MSRP file transfer media stream in the SDP file in the PoC Session.
- In case of multiple media lines for multiple different file transfer, the IM Client SHALL send the re-INVITE to set to zero i.e. m=0, of all the media lines corresponding to the MSRP files that have been transferred

- subclause 10.3 "Client Receiving File Transfer Request" applies and is modified as follows:

#### 10.3 Client Receiving File Transfer Request

When the ~~PoCIM~~ Client receives a SIP INVITE request or a SIP re-INVITE with SDP offer containing a "File-Selector" parameter, the ~~PoCIM~~ Client

- 1. SHOULD render to the PoCIM user the file description parameters received; ~~When the IM user accepts some or all of the offered files;~~
- 2. The client SHALL accept from the IM user input regarding the file (s) he is willing to accept;
- 3. The IM Client SHALL include in the generate a SIP 200 "OK" with an SDP answer containing the file identities of the requested files as described in [draft-mmusic-file-transfer-mech], if the Media Stream offering the file is accepted by the PoC Client.;
- 4. The IM Client SHALL send the SIP 200 "OK"

- other subclauses of clause 10 "File Transfer" do not apply.

Clause 11 "Error Handling" in [OMA-IM-TS] applies.

Clause 12 "Deferred Messages" in [OMA-IM-TS] does not apply.

Clause 13 "Conversation History Function" in [OMA-IM-TS] does not apply.



Clause 14 "System Concepts" in [OMA-IM-TS] does not apply.

Clause 15 "Timers" in [OMA-IM-TS] applies with exception of the timer Ts1 and the timer Tc3.

Appendix A "Change History" in [OMA-IM-TS] does not apply.

Appendix B "Static Conformance Requirements" in [OMA-IM-TS] applies as follows:

- appendix headline applies.
  
- subclause B.1 "SCR for Session Mode Messaging" heading applies.
  
- subclause B.1.1 "Originating Client Procedures for Session Mode Messaging" applies and is modified as follows:
  - subclause heading applies;
  - the subclause text is replaced with the following text:

<u>Item</u>	<u>Function</u>	<u>Reference</u>	<u>Requirement</u>
<u>PoCIMSspec-SMM-C-501-O</u>	<u>PoC Client sending User Plane message</u> <u>PoCv2.0</u>	<u>7.1.3</u>	

- subclause B.1.2 "Terminating Client Procedures for Session Mode Message" applies and is modified as follows:
  - subclause heading applies;
  - the subclause text is replaced with the following text:

<u>Item</u>	<u>Function</u>	<u>Reference</u>	<u>Requirement</u>
<u>PoCIMSspec-SMM-C-502-O</u>	<u>PoC Client receiving User Plane message</u> <u>PoCv2.0</u>	<u>7.1.3</u>	

- subclause B.1.3 "Controlling Server Procedures for Session Mode Messaging" applies and is modified as follows:
  - subclause heading applies;
  - the subclause text is replaced with the following text:

<u>Item</u>	<u>Function</u>	<u>Reference</u>	<u>Requirement</u>
<u>PoCIMSspec-SMM-S-501-M</u>	<u>Controlling PoC Function User Plane</u> <u>PoCv2.0</u>	<u>7.2.3</u>	

- subclause B.1.4 "Participating Server Procedures for Session Mode Messaging" applies and is modified as follows:
  - subclause heading applies;
  - the subclause text is replaced with the following text:

<u>Item</u>	<u>Function</u>	<u>Reference</u>	<u>Requirement</u>
<u>PoCIMSPEC-SMM-S-601-M</u>	<u>Participating PoC Function User Plane</u> <u>PoCv2.0</u>	<u>6.1.3</u>	

- subclause B.3 "*SCR for Pager Mode*" heading applies.

- subclause B.3.1 "*Originating Client Procedures for Pager Mode*" applies and is modified as follows:

- subclause heading applies;
- item IMSpec-PMM-C-004 apply and is modified as followed:

Item	Function	Reference	Requirements
IMSpec-PMM-C-002-M	IM Client Sending SIP MESSAGE to URI-List( <del>More than one user</del> <u>To a subset of Participants</u> )	<input type="checkbox"/>	
IMSpec-PMM-C-100-O	Support EMCS Retrieval during a PoC Session	8.1.1	

- IMSpec-PMM-C-005 apply;
- other items do not apply.

- subclause B.3.2 "*Terminating Client Procedures for Pager Mode*" applies and is modified as follows

- subclause heading applies;
- all items apply;

- subclause B.3.3 "*Participating Server Procedures for Pager Mode Messaging*" applies and is modified as follows:

- subclause heading applies;
- items IMSpec-PMM-S-001, IMSpec-PMM-S-002 apply;
- other items do not apply.

- subclause B.3.4 "*Terminated at the Controlling Function for Pager Mode*" applies and is modified as follows

- subclause heading applies;
- all items apply;

- subclause B.3.5 "*Originated by the Controlling Function for Pager Mode*" applies and is modified as follows:

- subclause heading applies;
- items and IMSpec-PMM-S-004 and IMSpec-PMM-S-006 apply without the requirement column;
- other items do not apply.

- subclause B.4 "*File Transfer*" heading applies.

- subclause B.4.1 "*Originating Client Procedures for File transfer*" applies and is modified as follows.
- subclause heading applies;
- all items apply without the requirement column;

- subclause B.4.2 "*Terminating Client Procedures for File transfer*" applies and is modified as follows.
- subclause heading applies;
- the subclause text is replaced with the following text:

<u>Item</u>	<u>Function</u>	<u>Reference</u>	<u>Requirement</u>
PoCIMSPEC-FC-C-501-O	PoC Client receiving a transferring File request  PoCv2.0	10.3	

- other subclauses of appendix A do not apply.

Appendix C "*Initial Filter Criteria*" in [OMA-IM-TS] does not apply.

Appendix D "*Examples Of Signalling Flows*" in [OMA-IM-TS] does not apply.

Appendix E "*Im Service Setting*" in [OMA-IM-TS] does not apply.

Appendix F "*OMA IM Parameter Definition and Conventions*" in [OMA-IM-TS] applies as follows:

- appendix headline applies.
- subclause F.1 "*Release version in User-agent and Server headers*" is replaced by the content of the [OMA-PoC-CP] "*Release version in User-agent and Server headers*".
- other subclauses of appendix F "*OMA IM Parameter Definition and Conventions*" do not apply.

Appendix G "*Oma Sec Group Security Threats Analysis*" in [OMA-IM-TS] does not apply.

Appendix H "*Presence Information Elements And Procedures*" in [OMA-IM-TS] does not apply.

Appendix I "*The Parameters To Be Provisioned For Im Service*" in [OMA-IM-TS] does not apply.

Appendix J "*Retrieve Deferred Messages*" in [OMA-IM-TS] does not apply.

Appendix K "*Saving IM Content*" in [OMA-IM-TS] does not apply.

Appendix L "*Extending One To One Session To A Conference*" in [OMA-IM-TS] does not apply.

Appendix M "*Conference Event Package*" in [OMA-IM-TS] applies.

Appendix N "*Emoticons*" in [OMA-IM-TS] does not apply.

Appendix O "*Final report*" in [OMA-IM-TS] applies and is modified as follows:

- subclause heading applies
- the subclause text is replaced by the following text

- The Discrete Media reports XML schemas are specified in [OMA-PoC-UP] "*Discrete Media Transfer Final Report*" and [OMA-PoC-UP] "*Discrete Media Transfer Progress Reports*".

Appendix P "*Use of REFER Method in IM*" in [OMA-IM-TS] does not apply.

Appendix Q "*IM related Shared XDM extensions*" in [OMA-IM-TS] does not apply.

Appendix R "*Access Policy examples*" in [OMA-IM-TS] does not apply.

Appendix S "*Charging Use Cases*" in [OMA-IM-TS] does not apply.

## Appendix A. Change History (Informative)

### A.1 Approved Version History

Reference	Date	Description
n/a	n/a	No prior version

### A.2 Draft/Candidate Version 2.1 History

Document Identifier	Date	Sections	Description
Draft versions: OMA-TS- PoC_Endorsement_OMA_IM_TS-V2_1	12 Nov 2008	All	Base line created, using OMA-TS-PoC_Endorsement_OMA_IM_TS-V2_0-20071211-C as base.
	22 Dec 2008	All	Modified according to the following CRs: OMA-POC-POCV2_1-2008-0313 OMA-POC-POCV2_1-2008-0314R01
	11 Jan 2009	All	Modified according to the following CRs: OMA-POC-POCV2_1-2009-0049 OMA-POC-POCV2_1-2009-0048
	27 Apr 2009	All	Modified according to the following CRs: OMA-POC-POCV2_1-2009-0146
	6 May 2009	All	Modified according to the following CR: OMA-POC-POCV2_1-2009-0231r01
	20 May 2009	All	Modified according to the following CR: OMA-MWG-POCv2_1-2009-0259R01
	26 June 2009	All	Modified according to the following CR: OMA-MWG-POCv2_1-2009-0267
	7 July 2009	All	Modified according to the following CR: OMA-MWG-POCv2_1-2009-0411
	20 July 2009	All	Editorial clean-up.
Candidate version : OMA-TS- PoC_Endorsement_OMA_IM_TS-V2_1	22 Dec 2009	N/A	Status changed to Candidate by TP TP ref # OMA-TP-2009-0549- INP_PoC_V2_1_ERP_for_Candidate_Approval

## Appendix B. Static Conformance Requirements (Normative)

The SCRs in the Appendix B "*Static Conformance Requirements*" of [OMA-IM-TS] apply as endorsed in the subclause 5.2 "*Subclause endorsement*".