Push to Communicate for Public Safety

Endorsement of OMA IM

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Open Mobile Alliance

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Contents

Figures

No table of figures entries found.

Tables

No table of figures entries found.

1. Scope

This document contains an endorsement of OMA IM Instant Messaging using SIMPLE document for the Discrete Media transmission of the Push-to-Communicate for Public Safety (PCPS) service.

2. References

2.1 Normative References

[OMA-IM-TS]	"Instant Messaging using SIMPLE", Version 1.0 (2012-08-07), Open Mobile Alliance™, OMA-TS-SIMPLE_IM-V1_0-20120807-A, URL: http://www.openmobilealliance.org/
[OMA-PCPS-AD]	"Push to Communicate for Public Safety Architecture", Version 1.0, Open Mobile Alliance™, OMA-AD-PCPS-V1_0, URL: http://www.openmobilealliance.org/
[OMA-PCPS-CP]	"Push to Communicate for Public Safety Control Plane", Version 1.0, Open Mobile Alliance™, OMA-PCPS-TS-ControlPlane-V1_0, URL: http://www.openmobilealliance.org/
[OMA-PCPS-UP]	"Push to Communicate for Public Safety User Plane", Version 1.0, Open Mobile Alliance™, OMA-PCPS-TS-User_Plane-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
[RFC5547]	"A Session Description Protocol (SDP) Offer/Answer Mechanism to Enable File Transfer", M. Garcia-Martin et al, May 2009, URL: http://www.ietf.org/rfc/rfc5547.txt

2.2 Informative References

[OMADICT]	"Dictionary for OMA Specifications", Version 2.9, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_9, 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-PCPS-AD] and [OMA-PCPS-CP] apply.

3.3 Abbreviations

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

4. Introduction

The PCPS Enabler is intended to deliver a complete set of Push-to-Communicate for Public Safety application and service layer standards (for voice and data), hence the PCPS acronym. This enabler is an update from the PoC V2.1 Enabler.

This specification allows 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 1.0

PCPS V1.0 has a limited scope, serving as a limited OMA PoC Enabler Update from the current version of PoC V2.1.

PCPS V1.0 updates PoC V2.1 to support 3GPP Release 12 LTE and relevant key features based upon completed 3GPP requirements up through Release 12.

PCPS V1.0 is synchronized to 3GPP Release 12, specifically excluding the following in progress Release 12 work:

- Group Communication System Enablers for LTE (GCSE_LTE)
- Proximity Services (ProSe)

PCPS V1.0 is synchronized to 3GPP Release 12, to specifically include the following:

- Adapt PoC V2.1 Multicast (currently using MBMS over UTRA) to use eMBMS over LTE
- Update PoC V2.1 SIP/IP Core operations to align with 3GPP Release 12 LTE architecture

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

This specification defines the procedures for the following features:

- Session based messaging
- File transfer
- Procedures for the PoC Client to reference Media stored in an EMCS

Informational 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 appling 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 endosed 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 "*Introduction*" 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-PCPS-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-PCPS-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-PCPS-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-PCPS-UP] "*Discrete Media Transfer Final Report*" and [OMA-PCPS-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.

- ther 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 2nd 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 PoC User wants to send the request to all the Participants of the Discrete Media used in PoC, The "To" header of the message/CPIM wrapper SHALL be set to PoC Session Identity.
- 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 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 1st paragraph does not apply;
- 2nd 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 PoC Session, the MSRP switch

- SHALL support media type message/cpim
- SHALL maintain mappings of PoC Session 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 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 PoC 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 PoC Server SHALL check the "To" header field(s) of the Message/CPIM of a MSRP request. If the "To" header field(s) contains the PoC Session Identity, the PoC Server SHALL consider the request as a message to be distributed to all Participants of the Discrete Media used in PoC Session. The PoC Server:
    - a) SHALL check if the "max-size" SDP attribute was negotiated by a PoC Client using the Discrete Media. If it has not been negotiated, the PoC Server will continue processing. If it has been negotiated, the PoC 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. If the total message size is larger than the "max-size", the PoC Server:

        i.   SHALL NOT send the message to this particular PoC Client.

        ii.   SHALL indicate that a Failure report is to be returned to the sender;
    - b) SHALL send the MSRP request to PoC Address of each Participant of the Discrete Media used in PoC Session except the sender user's PoC 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-PCPS-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-PCPS-CP] "Anonymous PoC Address" and the Nick Name of the sending PoC Client as specified in [OMA-PCPS-CP] "Nick Name", if privacy was requested at the PoC Session initiation or modification.
        - The PoC Server sends the modified SEND request;
        - The PoC 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 2nd 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;
- 1st 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, then the PoC Client SHALL;
- a. include a MIME resource-list body with the PoC Addresses of the receiving Participants 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:
  - SHALL set the Request-URI of the SIP MESSAGE request to the PoC 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 2nd 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 and if not, then 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 anonymity is requested, check whether anonymity was negotiated by the sending Participant at the PoC Session initiation. If not negotiated, the PoC 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 PoC Server sends a SIP MESSAGE request, the PoC 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 the following:
- 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 a PoC Client receives instruction to send one or more files or to request one or more files with the extended SDP information, the PoC Client:
- 1. If the file is to be transferred during an ongoing session, SHALL send a re-INVITE as described in [OMA-PCPS-CP] "PoC Client PoC Session modification" with the description of the file to be transferred in the SDP according to rules and procedures of [RFC5547]:

- 2. If there is no ongoing session, SHALL follow the procedures defined in [OMA-PCPS-CP] "PoC Client PoC Session modification" with the description of the file to be transferred in the SDP according to rules and procedures of [RFC5547]:
- 3. SHALL add the file media description to the SDP settings as specified in [RFC5547]
- 4. In case of sending multiple files in one file transfer to one recipient, if more than one file is to be sent or r~~R~~equested, each set of file media descriptions SHALL be separated as described in [RFC5547]. In case of more than one recipient, the PoC Client SHALL send only one file media description at a time;

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

When the 200 OK response for the last MSRP SEND of a file transfering Discrete Media is received, the PoC Client SHALL continue 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 file with the extended SDP information has been transferred, the PoC 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 PoC User, unless it is already running due to another previously finished file transfering with the extended SDP information Discrete Media of the same PoC Session. If the PoC Client does not receive the instruction until the timer expires, the PoC Client SHALL remove the file transfering Discrete Media from the PoC Session; or
- 2. MAY remove the file transfering Discrete Media from the PoC Session immediately.

When the PoC Client removes the file transfering Discrete Media from the PoC Session, the PoC Client:
- SHALL release the PoC session as specified in [OMA-PCPS-CP] "*PoC Client leaving a PoC Session*", if there is no other used Media Stream in the PoC Session; or,
- SHALL disconnect from all the file transfering Discrete Media that have already been transferred by PoC Session modification as specified in [OMA-PCPS-CP] "PoC *Client PoC Session modification*", if there is any other used Media Stream in the PoC Session.

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

10.3 Client Receiving File Transfer Request

When the PoC Client receives a SIP INVITE request or a SIP re-INVITE with SDP offer containing a "file-selector" parameter, the PoC Client
- 1. SHOULD render to the PoC user the file description parameters received
- 3. SHALL include in the SDP answer the media descriptions of the requested files as described in [RFC5547], if the Media Stream offering the file is accepted by the PoC Client.

- subclause 10.4 " Controlling Server procedures for File Transfer " applies and is modified as follows:

10.4 Controlling Server procedures for File Transfer

Upon receiving of an initial SIP INVITE request for File Transfer, the PoC~~IM~~ Server:
- 1. SHALL determine if more than one file media description is present in the SDP, and if so, it SHALL reject the request with a SIP 403 "Forbidden" response to the PoC Client. The PoC Server SHOULD include a Warning header with the warning text set to '121 Function not allowed due to only one file allowed' as specified in subclause *"Warning header"*. Otherwise, continue with the rest of the steps;

Upon receiving a SIP 200 "OK" response for the SIP INVITE request, the PoC Server:
- 1. SHALL generate a SIP 200 "OK" response to the incoming SIP INVITE request and continue with the rest of the steps if the SIP final response is not yet sent to the Inviting PoC Client. Otherwise do not proceed with the rest of the steps;

- 2. SHALL include an SDP answer containing the file media description of the file as described in [RFC5547];
- 3. SHALL send a SIP 200 "OK" response to the Inviting PoC Client according to rules and procedures of the SIP/IP Core;
- 4. SHALL keep information about all of the 200 OK responses received from any of the invited PoC~~IM~~ recipients to determine which IM Clients accepted to receive the File Transfer.

Upon receiving a SIP final response other than 2xx or 3xx that is one of the SIP 4xx, 5xx or 6xx final responses the PoC Server SHALL:

1. keep information about which of the invited PoC~~IM~~ Clients has sent a 4XX, 5XX or 6XX response, so that the file is not sent to those PoC Clients;

2. if a SIP final response other than 2xx or 3xx was received from all the Invited PoC Clients then the PoC Server SHALL send a 4XX error response back to the Inviting PoC Client.

Upon receiving an MSRP SEND request, containing the Final Report header as described in 5.7.2 "*Originating Client Procedures*", the PoC Server SHALL act according to 5.7.3 "*Controlling Server Procedures*". The PoC Server MAY add information about the clients that did not accept the file transfer to the Final Report.

When the SIP/IP Core corresponds with 3GPP/3GPP2 IMS, the IM Server SHALL use 3GPP/3GPP2 IMS mechanisms according to rules and procedures of [3GPP TS 24.229] / [3GPP2 X.S0013.004] with the clarifications given in this section.

- 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:

Item	Function	Reference	Requirement
PoCIMSpec-SMM-C-501-O	PoC Client sending User Plane message PoCv2.0	7.1.3	

- 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:

Item	Function	Reference	Requirement
PoCIMSpec-SMM-C-502-O	PoC Client receiving	7.1.3	

Item	**Function**	**Reference**	**Requirement**
	User Plane message PoCv2.0		

- 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:

Item	**Function**	**Reference**	**Requirement**
PoCIMSpec-SMM-S-501-M	Controlling PoC Function User Plane PoCv2.0	7.2.3	

- 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:

Item	**Function**	**Reference**	**Requirement**
PoCIMSpec-SMM-S-601-M	Participating PoC Function User Plane PoCv2.0	6.1.3	

- 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(To a subset of Participants)	__	
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:

Item	**Function**	**Reference**	**Requirement**
PoCIMSpec-FC-C-501-O	PoC Client receiving a transferring File request PoCv2.0	10.3	

- other subclauses of appendix B 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-PCPS-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-PCPS-UP] "*Discrete Media Transfer Final Report*" and [OMA-PCPS-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
OMA-PCPS-TS-Endorsement_OMA_IM-V1_0-20170124-A	24 Jan 2017	Status changed to Approved by TP TP Ref # OMA-TP-2017-0001-INP_PCPS-V1_0_ERP_for_Final_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*".