Enabler Release Definition for Push-to-Talk over Cellular

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Open Mobile Alliance

OMA-ERELD-PoC-V1_0-20060609-A

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Contents

Tables

1. Scope

The scope of this document is limited to the Enabler Release Definition of Push-to-Talk over Cellular according to OMA Release process and the Enabler Release specification baseline listed in section 5.

2. References

2.1 Normative References

[IOPPROC]	"OMA Interoperability Policy and Process", Version 1.1, Open Mobile Alliance™, OMA-IOP-Process-V1_1, URL:http://www.openmobilealliance.org/
[RFC2119] NOTE	"Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL:http://www.ietf.org/rfc/rfc2119.txt
[RFC2234]	"Augmented BNF for Syntax Specifications: ABNF". D. Crocker, Ed., P. Overell. November 1997, URL:http://www.ietf.org/rfc/rfc2234.txt
[POC-RD]	OMA PoC Requirement Document Version 1.0. Open Mobile Alliance™. OMA-RD-PoC-V1_0, URL:http://www.openmobilealliance.org/
[POC-CP]	OMA PoC Control Plane Document Version 1.0 Open Mobile Alliance™ OMA-TS-PoC-Control Plane-V1_0, URL:http://www.openmobilealliance.org/
[POC-UP]	OMA PoC User Plane Document Version 1.0 Open Mobile Alliance™ OMA-TS-PoC-User Plane-V1_0, URL:http://www.openmobilealliance.org/
[POC-XDM]	OMA PoC XDM Specification Document Version 1.0 Open Mobile Alliance™ OMA-PoC_XDM_Specification-V1_0, URL:http://www.openmobilealliance.org/
[POC-AC]	OMA PoC Application Characteristic Version 1.0 Open Mobile Alliance™ ap0001_poc-v1_0.txt, URL:http://www.openmobilealliance.org/
[POC-GROUPAD]	"PoC – Group Advertisement", Candidate Version 1.0, Open Mobile Alliance™, OMA-SUP-POC_group_advertisement-V1_0, URL: http://www.openmobilealliance.org/
[POC-LISTSERV]	"PoC – List Service", Candidate Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_poc_listService-V1_0, URL: http://www.openmobilealliance.org/
[POC-RULES]	"PoC – PoC Rules", Candidate Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_poc_pocRules-V1_0, URL: http://www.openmobilealliance.org/
[POC-USAGE]	"PoC – PoC usage", Candidate Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_poc_pocusage-V1_0, URL: http://www.openmobilealliance.org/

2.2 Informative References

[POC-AD]	OMA PoC Architecture Document Version 1.0. Open Mobile Alliance™. OMA-AD-PoC-V1_0, 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 appendixes, except "Scope" and "Introduction", are normative, unless they are explicitly indicated to be informative.

The formal notation convention used in sections 8 and 9 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [IOPPROC].

3.2 Definitions

1-1 PoC Session	A feature enabling a PoC User to establish a PoC Session with another PoC User
1-many Session	A PoC Group Session that is not a 1-many-1 Session.
1-many-1 Session	A PoC Group Session for a Pre-arranged PoC Group in which one Participant is a Distinguished Participant and all other Participants are Ordinary Participants.
Access Control	User specified rules that restrict the set of other users that may establish PoC Sessions to the user.
Active PoC Session	An Active PoC Session is a PoC Session that carries both RTP and Talk Burst Control Protocol based packets to the user. If the user has multiple PoC Sessions, at most only one may be active at any given time.
Ad-hoc PoC Group	An Ad-hoc PoC Group Session is a PoC Session for multiple PoC Users that does not involve the use or definition of a Pre-arranged or Chat Group.
Answer Mode	The Answer Mode Indication is the current Answer Mode PoC service setting of the PoC Client.
Answer Mode Indication	The Answer Mode Indication is the current Answer Mode PoC service setting of the PoC Client.
Application Server	An Application Server in 3GPP IMS or 3GPP2 MMD is a functional entity that implements the service logic for SIP sessions. When the SIP/IP Core used for the PoC service is according to 3GPP IMS or 3GPP2 MMD specifications, the PoC Server implements the Application Server functionality.
Authenticated Originator's PoC Address	The authenticated Originator's PoC Address is the PoC Address of the originating PoC Client that has been authenticated by the SIP/IP Core.
Automatic Answer Mode	Automatic Answer Mode is a PoC Client mode of operation in which the PoC Client accepts a PoC Session establishment request without manual intervention from the user; Media is immediately played when received.
Chat PoC Group	A Chat PoC Group is a persistent Group in which each member individually joins the PoC Session, i.e., the establishment of a PoC Session to a Chat PoC group does not result in other members of the Chat PoC Group being invited.
Chat PoC Group Session	A Chat PoC Group Session is a PoC Session established to a Chat PoC Group.
Conference-factory-URI	A Conference Factory URI for PoC service is a provisioned SIP URI that identifies the PoC service in the Home PoC Network.
Confirmed Indication	A Confirmed Indication is a signalling message returned by the PoC Server to confirm that the PoC Server, all other network elements intermediary to the PoC Server and a terminating PoC Client are able and willing to receive Media.
Contact List	A Contact List is a list available to the PoC User that contains the addresses of PoC Users or PoC Groups.
Control Plane	The Control Plane is the specification of the signaling between the PoC Client and PoC Server, and between PoC Servers for the Push to talk over Cellular (PoC) service.
Controlling PoC	The Controlling PoC Function is implemented in a PoC Server and provides centralized PoC Session

Function	handling, which includes RTP Media distribution, Talk Burst Control, policy enforcement for participation in Group Sessions, and the Participant information.
Conversation	A Conversation is a series of Talk Bursts within a PoC Session in which the inter-arrival spacing of the Talk Bursts is less than a defined time interval; typically, the Talk Bursts are associated to a logical exchange between two or more users.
Distinguished Participant	The Distinguished Participant is a Participant in a 1-many-1 Session that sends RTP Media to all Ordinary Participants, and that receives RTP Media from any Ordinary Participant.
Dormant PoC Session	A Dormant PoC Session is a PoC Session in which the user receives TBCP and no RTP Media. If the user has multiple PoC Sessions, all except at most one PoC Session are dormant.
Exploder URI	An Exploder URI is an address of a SIP URI-list service. A URI-list service is a specialized application service that receives a SIP request with a list of URIs and generates a similar SIP request to each of the URIs on the list. The SIP URI-list service includes a copy of the body of the original SIP request in the generated SIP requests.
Filter Criteria	Filter Criteria is routing logic used in the 3GPP IMS or 3GPP2 MMD SIP Core to route SIP requests to the correct Application Server.
Group	A Group is a predefined set of PoC users that is identified by a SIP URI. A PoC Client uses the Group to establish PoC Sessions and to define PoC Session access policy.
Group Advertisement	A Group Advertisement is a feature that provides the capability to inform other PoC Users of the existence of a PoC Group.
Group List	A list of members in a Pre-arranged or Restricted Chat PoC Group. Each member is identified by a SIP URI or a TEL URL.
Home PoC Network	The Home PoC Network is a network comprising a SIP/IP Core and PoC Server, both operated by the user's PoC service provider. The Home PoC Network is the same as the Home Network defined in IMS and MMD specifications.
Home PoC Server	The Home PoC Server is the PoC Server owned by service provider that provides PoC service to the user.
Incoming Instant Personal Alert Barring	Incoming Instant Personal Alert Barring is a PoC service setting for the PoC Client that conveys the PoC User's desire for the PoC service to block all incoming Instant Personal Alerts.
Incoming PoC Session Barring	Incoming PoC Session Barring is a PoC service setting for the PoC Client that conveys the PoC User's desire for the PoC service to block all incoming PoC Session requests.
Instant Personal Alert	Instant Personal Alert is a feature in which a PoC User sends a SIP based instant message to a PoC User requesting a 1-1 PoC Session.
Invited PoC Client	An Invited PoC Client is a PoC Client that is invited to a PoC Session.
Inviting PoC Client	An Inviting PoC Client is a PoC Client that invites other PoC User(s) to a PoC Session.
Invited PoC User	The PoC User who has been invited to a PoC Session.
Manual Answer Mode	Manual Answer Mode is a mode of operation in which the PoC Client requires the PoC User to manually accept the PoC Session invitation before the PoC Session is established.
Media Parameters	Media Parameters are SIP/SDP based information exchanged between the PoC Server and the PoC Client that specify the characteristics of the media for a PoC Session being established or that already exists.
On-demand Session	An On-Demand Session is a PoC Session set-up mechanism in which all Media Parameters are negotiated at PoC Session establishment.
Ordinary Participant	An Ordinary Participant is a Participant in a 1-many-1 Session that is only able to send media to the Distinguished Participant, and that likewise is only able to receive media from the Distinguished Participant.
Participant	A Participant is a PoC User in a PoC Session.
Participating PoC Function	The Participating PoC Function is implemented in a PoC Server, and provides PoC Session handling, which includes policy enforcement for incoming PoC Sessions and relays Talk Burst Control messages between the PoC Client and the PoC Server performing the Controlling PoC Function. The Participating PoC Function may also relay RTP Media between the PoC Client and the PoC Server performing the Controlling PoC Function.

PDP Context	Packet Data Protocol Context. A Packet Data Protocol (PDP) Context is a logical connection between a terminal and network, as defined in 3GPP General Packet Radio Service (GPRS) specifications. A PDP Context, as a logical connection, is mapped onto a physical layer radio connection. A PDP Context may be closely associated with a single application level flow, e.g., a voice service instance, or it may support multiple application level flows, e.g., a best effort packet data service instance.
PoC Address	A PoC Address identifies a PoC User. The PoC Address can be used by one PoC User to request communication with other PoC Users.
PoC Client	A PoC Client is a PoC functional entity that resides on the PoC User Equipment that supports the PoC service.PoC service
PoC Group	A PoC Group is a predefined set of PoC Users together with its attributes. A PoC Group is identified by a SIP URI.
PoC Group Identity	The PoC Group Identity is a SIP URI of the Pre-arranged PoC Group or Chat PoC Group.
PoC Group Session	A PoC Group Session is a Pre-arranged PoC Group, Ad-hoc PoC Group or Chat PoC Group Session.
PoC Server	The PoC Server implements the 3GPP IMS and 3GPP2 MMD application level network functionality for the PoC service. A PoC Server may perform the role of the Controlling PoC Function or Participating PoC Function, or both at the same time.
PoC Session	A PoC Session is a SIP ession established by the procedures of this Specification. This Specification supports the following types of PoC Sessions: 1-1 PoC, Ad-hoc PoC Group, Pre-arranged PoC Group, or Chat PoC Group Session.
PoC Session Identifier	The PoC Session Identifier is an identifier associated with a PoC Session that uniquely distinguishes a particular PoC Session from all other PoC Sessions, including those that currently exist and those that do not.
PoC Session Identity	SIP URI received by the PoC Client during the PoC Session establishment in the Contact header or in the TBCP Connect message in case of using Pre-established Session.
PoC Subscriber	A PoC Subscriber is one whose service subscription includes the PoC service. NOTE: In [PoC RD V1.0] the term "PoC Subscriber" is sometimes used to mean the same as term "PoC User" in [OMA PoC AD], [OMA PoC CP] and [OMA PoC UP].
PoC User	A PoC User is a user of the PoC service. NOTE: In [PoC RD V1.0] the term "PoC Subscriber" is sometimes used to mean the same as term "PoC User" in [OMA PoC AD], [OMA PoC CP] and [OMA PoC UP].
Pre-arranged PoC Group	A Pre-arranged PoC Group is a persistent PoC Session Identity that has an associated set of PoC members. The establishment of a PoC Session to a prearranged PoC Group results in all members being invited.
Pre-established Session	The Pre-established Session is a SIP Session established between the PoC Client and the PoC Server that performs the Participating PoC Function. The PoC Client establishes the Pre-established Session prior to making requests for PoC Sessions to other PoC users. To establish a PoC Session based on a SIP request from the user, the PoC Server conferences other PoC Servers/Users to the Pre-established Session so as to create an end-to-end connection.
Primary PoC Session	The Primary PoC Session is a PoC Session that the PoC User selects in preference to other PoC Sessions. When the user has Simultaneous PoC Sessions, the Primary PoC Session has a priority over Secondary PoC Sessions.
Remote PoC Network	A Remote PoC Network is a network that consists of a SIP/IP Core and a PoC Server. The Remote PoC Network is owned or operated by a service provider other than the one to which the PoC Client subscribes.
Restricted Group	A Group that can be joined only by a PoC User that is a member of the Group. A Restricted Group has a Group List.
RTP Media	RTP Media is the media carried in an RTP payload.
RTP Session	A RTP Session is considered as an association that allows exchange of RTP Media streams and RTCP messages among a set of PoC functional entities.
Secondary PoC	A Secondary PoC Session is a PoC Session for which the PoC User receives media when there is no media present on the Primary PoC Session.

Session	
Session Type	A Session Type is a SIP URI-parameter used to convey the type of SIP URI, and may take on one of the following values: adhoc, prearranged, chat or 1-1.
Served PoC User	A PoC User that obtains a PoC service from a PoC Server located in the Home PoC Network.
Service Instance	A Service Instance is the instantiation of a logical connection across the radio interface associated with a particular protocol stack. Service Instances, as logical connections, are mapped onto the physical layer radio connections. A Service Instance may be closely tied to a single application level flow, e.g., a voice service instance, or may support multiple application level flows, e.g., a best effort packet data service instance.
SigComp	SIGCOMP is a signaling compression mechanism specified in [RFC3320]; SIGCOMP in PoC provides for the compression of SIP requests and responses.
Simultaneous PoC Session	When a PoC User is a Participant in more than one PoC Session simultaneously using the same PoC Client.
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. A dialog is identified by a call identifier, local tag, and a remote tag. A dialog was formerly known as a call leg in RFC 2543.
SIP URI	From RFC 3261: "A SIP or SIPS URI identifies a communications resource" and "follows the guidelines in RFC 2396 [5]". PoC uses SIP URIs to identify PoC Clients, PoC Servers, and PoC Sessions, resource lists that point to URI lists, etc.
SIP User Agent	A SIP User Agent is any SIP peer that performs SIP signaling [RFC3261].
Talk Burst	A Talk Burst is the flow of media from a PoC Client while that has the permission to send media.
Talk Burst Control	Talk Burst Control is a control mechanism that arbitrates requests from the PoC Clients, for the right to send media. NOTE: In [PoC RD V1.0] the term "Floor Control" is used to mean the same as term "Talk Burst Control" in [OMA PoC AD], [OMA PoC CP] and [OMA PoC UP].
Talk Burst Control Protocol	Talk Burst Control Protocol (TBCP) is a protocol for performing Talk Burst Control, and is defined in these specifications.
Talker Identification	Talker Identification is the procedure by which the current talker's identity is determined and made known to listeners on the PoC Session.
Unconfirmed Indication	The Unconfirmed Indication is an indication returned by the PoC Server to confirm that it is able to receive media and believes the PoC Client is able to accept media; the PoC Server sends the Unconfirmed Indication prior to determining that all egress elements are ready or even able to receive media.
Unrestricted Group	An Unrestricted Group is a PoC Group that any PoC User may join.
User	A User is any entity that uses the described features through the User Equipment.
User Equipment	User Equipment is a hardware device that supports a PoC Client e.g., a wireless phone.
User Plane	The User Plane includes the media and media control signaling (e.g., Talk Burst Control Protocol) between the PoC Client and PoC Server.

3.3 Abbreviations

3GPP	3rd Generation Partnership Project
3GPP2	3rd Generation Partnership Project 2
ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
IETF	Internet Engineering Task Force

IMS	IP Multimedia Subsystem
OMA	Open Mobile Alliance
PoC	Push-to-talk over Cellular
RFC	Request For Comments (IETF specifications)
RTCP	RTP Control Protocol
RTP	Real-time Transport Protocol
SDP	Session Description protocol
SIP	Session Initiation Protocol
TBCP	Talk Burst Control Protocol
UDP	User Datagram Protocol
UE	User Equipment
UP	User Plane
URI	Uniform Resource Identifier
UTF-8	UCS Transformation Format 8
XML	Extensible Mark-up Language

4. Introduction

This document outlines the Enabler Release Definition for Push To Talk over Cellular (PoC) version 1.0 and the respective conformance requirements for clients and servers implementing claiming compliance to it as defined by Open Mobile Alliance across the specification baseline.

Push To Talk over Cellular (PoC) service is a *two-way form* of communications that allows users to engage in immediate communication with one or more users. POC service is similar to a "walkie-talkie" application in the way that by pressing a button a talk session with an individual user or a broadcast to a group of participants is initiated. Receiving participants hear the sender's voice either without any action on their part (auto-answer mode), or may be notified and has to accept the call (manual answer mode) before listening to the sender's voice. In addition, the PoC service provides 2 models for PoC Session establishment: the Pre-established Session mode and the On-demand Session mode. The communication is half-duplex, meaning that one person can talk at a time and all other participants hear the speech. The permission for talk right granting is controlled via the floor control mechanism. The PoC service enabler supports the

- • 1-1 PoC Session which is the basic capability to set up voice communication between two users

- • 1-to-many PoC Session which is the capability to enable the setup a voice communication with a multiple number of other PoC Subscribers in an ad-hoc or pre-defined group manner

- • Instant Personal Alert   which is the capability to inform about the calling user's wish to communicate and the request the invited user to "call-back".

The PoC service enabler utilizes basic inter-working with the Group Management service enabler and the Presence service enabler. Key features to these enablers are e.g. group lists creation and management functions, group sessions emulating conferencing on demand and integration of user's presence & availability information in the session setup process. Complementing the basic PoC service, Group Advertisement is available to inform PoC Group members about the existence and the membership of the group.

5. Description of Differences from Previous Version

There are no previous versions

6. Document Listing for PoC

The PoC enabler is comprised of the following specifications:

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[POC-RD]	OMA-RD-PoC-V1_0-20060609-A	Defines the requirements for the Push to Talk over Cellular service capturing the overall service description, primarily from the service subscriber's and user's points of view. It is applicable to network operators, service providers and terminal and infrastructure manufacturers.
Architecture Document		
[POC-AD]	OMA-AD-PoC-V1_0-20060609-A	Defines the overall architecture of PoC V1.0 including informative descriptions of technologies and their uses.
Technical Specifications		
[POC-CP]	OMA-TS-PoC-ControlPlane-V1_0-20060609-A	Defines the PoC Control Plane signaling procedures of the PoC Client and PoC Server for push to talk over cellular (PoC) service including example detailed signaling flows for the reference points POC-1, POC-2 and IP-1.
[POC-UP]	OMA-TS-PoC-UserPlane-V1_0-20060609-A	Defines the User Plane procedures for the Push to Talk over Cellular (PoC) service over the POC-3 and the POC-4 reference points as defined in the reference [PoC-AD]. When necessary, inter-working between the Control Plane [PoC-CP] and User Plane is described. If necessary, requirements on the implementation of SIP / IP Core are included.
[POC-XDM]	OMA-TS-PoC-XDM-V1_0-20060609-A	Defines the PoC enabler specific data formats and XCAP application usages.
Supporting Files		
[PoC-AC]	OMA-SUP-AC_ap0001_poc-V1_0-20060609-A	Description of the Application Characteristic for POC V1.0. This aligns with the Provisioning Spec. Working file in Application Characteristics directory: file: ap0001_poc-v1_0.txt path: http://www.openmobilealliance.org/tech/omna/ac
[PoC-GROUPAD]	OMA-SUP-XSD_poc_group_advertisement-V1_0-20060609-A	Schema with attributes for Control Plane. Working file in Schema directory: file: group_advertisement-v1_0.xsd path: http://www.openmobilealliance.org/tech/profiles/
[POC-LISTSERV]	OMA-SUP-XSD_poc_listService-V1_0-20060609-A	Schema with attributes for PoC XDM. Working file in Schema directory: file: poc_listService-v1_0.xsd path: http://www.openmobilealliance.org/tech/profiles/
[POC-RULES]	OMA-SUP-XSD_poc_pocRules-V1_0-20060609-A	Schema with attributes for PoC XDM. Working file in Schema directory: file: poc_pocRules-v1_0.xsd path: http://www.openmobilealliance.org/tech/profiles/

[POC-USAGE]	OMA-SUP-XSD_poc_pocusage-V1_0-20060609-A	Schema with attributes for PoC XDM. Working file in Schema directory: file: poc_pocusage-v1_0.xsd path: http://www.openmobilealliance.org/tech/profiles/

7. Minimum Functionality Description for PoC

This section is informative.

The minimum <u>mandatory functionality</u> for PoC Client and PoC Server includes:

1. PoC Client:

   - Registration and de-registration

   - PoC Session initiation, modification, joining and leaving, termination

   - On-demand Session establishment

   - PoC session handling for 1-to-1 communication, Pre-arranged PoC Group , Chat Group and Adhoc PoC Group communication

   - Instant Personal Alert (receiving)

   - Incoming PoC Session Barring

   - Manual Answer Mode or Automatic Answer Mode for incoming PoC session invitations

   - Activation and deactivation of setting for service attributes (e.g. Incoming PoC Session Barring, Answer Mode) towards PoC Server

   - Media transport (including support of UDP, port number handling, RTP, RTCP)

   - Media control by supporting RTCP Sender Report/Receiver Report (SR/RR) compound packets

   - PoC Session control

   - Talk Burst Control Protocol (TBCP)

   - Timer Handling

2. PoC Server:

   - Determination of PoC Server role for performing the Participating or Controlling PoC Function or both.

   - Common basic functions for Participating or Controlling PoC Function:

     - Support of PoC Session initiation, modification, joining and leaving, termination

     - PoC Session handling for 1-to-1 communication, Pre-arranged PoC Group, Chat Group and Adhoc PoC Group communication

     - Talk Burst Control Protocol (TBCP)

     - Media control by supporting RTCP Sender Report/Receiver Report (SR/RR) compound packets

     - On-demand Session establishment

   - Additional specific functions for PoC Server performing the Participating PoC Function

     - Manual or Automatic Answer Mode handling for PoC Session establishment

     - Setting, storing and enforcing different service attribute settings for the PoC Client

   - Additional specific functions for PoC Server performing the Controlling PoC Function

     - Media transport (including support of UDP, port number handling, RTP, RTCP)

     - PoC Session control

     - Session modification for Media Parameter according to local policy and based on lowest negotiated media parameters

- Talker identification

- Timer Handling

PoC enabler defines the following <u>optional functionality</u>:

1. PoC Client

    - Group Advertisement

    - Pre-established PoC Sessions

    - Simultaneous PoC Sessions

    - Scheduling of RTCP packages

    - Talker identification

    - Talk Burst queuing (e.g. positioning, status) and priority

    - Media Adaptation (voice frame packetisation, voice codec adaptation)

    - Timer Handling

2. PoC Server

    - Common basic functions:

        - Media control by supporting quality feed back

        - User Plane adaptation

        - Instant Personal Alert Barring

        - Group Advertisement

        - Media Transcoding

    - Additional specific functions for PoC server performing the Participating PoC Function

        - Pre-established PoC Session

        - Simultaneous PoC Sessions

        - Media relay function

        - Media transport (including support of UDP, port number handling, RTP, RTCP)

        - Timer Handling

    - Additional specific functions for PoC server performing the Controlling PoC Function

        - Talk Burst operation for queuing (e.g. state, position) and priority

        - Session modification for media capabilities according to local policy and based on lowest negotiated media parameters

The PoC enabler defines the following <u>external dependencies</u>:

    - Mandatory

        - Group Management Service Enabler

        - Device management

        - Charging

- SIP/IP core: IP Multimedia Subsystem (IMS) – comment: Chapter 5-Architecture (under Table 1) states that "... SHALL utilize SIP/IP core from IMS as specified in 3GPP and 3GPP2.

- SIP/IP core: Multimedia Domain (MMD) – comment: Chapter 5-Architecture (under Table 1) states that "... SHALL utilize SIP/IP core from IMS as specified in 3GPP and 3GPP2.

- Optional

  - Presence Service Enabler

8. Conformance Requirements Notation Details

This section is informative

The ERDEF tables are defined in the following chapters for:

- PoC Client,

- PoC Server performing the Participating PoC Function and,

- PoC Server performing the Controlling PoC Function.

Each ERDEF table identifies a list of supported features as:

Item: Identifier for a feature (according to [IOPPROC]).

Feature/Application: Short description of the feature labeled in column "Item".

Status: Whether support for the feature is mandatory or optional.

- M means the **Item** is mandatory

- O means the **Item** is optional

"M" is used for mandatory support and "O" for optional support in this column.

Requirement: This column identifies other features required by this feature. If no other features are required, this column is left empty.

The ERDEF notation as given in this section is consistent with the SCR notation as used in the [POC-CP] and [POC-UP]. The dependency grammar notation to be used in the Requirement column of the ERDEF tables using ABNF [RFC2234] are described as:

TerminalExpression = ScrReference / NOT TerminalExpression / TerminalExpression LogicalOperator TerminalExpression / "(" TerminalExpression ")"

ScrReference = ScrItem / ScrGroup

ScrItem = SpecScrName "–" GroupType "–" DeviceType "–" NumericId / SpecScrName "–" DeviceType "–" NumericId

ScrGroup = SpecScrName ":" FeatureType / SpecScrName "– " GroupType "–" DeviceType "–" FeatureType

SpecScrName = 1*Character;

GroupType = 1*Character;

DeviceType = "C" / "S"; C – client, S – server

NumericId = Number Number Number

LogicalOperator = "AND" / "OR"; AND has higher precedence than OR and OR is inclusive

FeatureType = "MCF" / "OCF" / "MSF" / "OSF"; See Section A.1.6

Character = %x41-5A ; A-Z

Number = %x30-39 ; 0-9

9. ERDEF for PoC - Client Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-POC-C-001	POC Client Control Plane	M	PoCCPSpec: MCF
OMA-ERDEF-POC-C-002	POC Client User Plane	M	PoC_UserPlaneV1: MCF
OMA-ERDEF-POC-C-003	POC Client Control Plane	O	PoCCPSpec: OCF See NOTE 1
OMA-ERDEF-POC-C-004	POC Client User Plane	O	PoC_UserPlaneV1: OCF See NOTE 2
NOTE 1: Any, All, or None of the optional requirements may be implemented. If any are implemented, then the dependencies implied in the SCR (appendix F) of [POC-CP] shall be adhered to. NOTE 2: Any, All, or None of the optional requirements may be implemented. If any are implemented, then the dependencies implied in the SCR (appendix A) of [POC-UP] shall be adhered to.			

Table 1 ERDEF for POC Client-side Requirements

10.ERDEF for PoC - Server Requirements

This section is normative.

Item	Feature / Application	Status	Requirement
OMA-ERDEF-POC-S-001	POC Server: Control Plane: Participating PoC Function	M	PoCCPSpec-PIR: MSF AND PoCCPSpec-PTR: MSF
OMA-ERDEF-POC-S-002	POC Server: Control Plane: Controlling PoC Function	M	PoCCPSpec-CIR: MSF AND PoCCPSpec-CTR: MSF
OMA-ERDEF-POC-S-003	POC Server: User Plane: Participating PoC Function	M	PoC_UserPlaneV1-PPR-S-001:MSF
OMA-ERDEF-POC-S-004	POC Server: User Plane: Controlling PoC Function	M	PoC_UserPlaneV1-CTR : MSF AND PoC_UserPlaneV1-CTB: MSF AND PoC_UserPlaneV1-CME: MSF AND PoC_UserPlaneV1-CMC: MSF AND PoC_UserPlaneV1-CID: MSF AND PoC_UserPlaneV1-CTI: MSF
OMA-ERDEF-POC-S-005	POC Server: Control Plane: Participating PoC Function	O	PoCCPSpec : OSF See NOTE 1
OMA-ERDEF-POC-S-006	POC Server: Control Plane: Controlling PoC Function	O	PoCCPSpec : OSF See NOTE 1
OMA-ERDEF-POC-S-007	POC Server: User Plane: Participating PoC Function	O	PoC_UserPlaneV1: OSF See NOTE 2
OMA-ERDEF-POC-S-008	POC Server: User Plane: Controlling PoC Function	O	PoC_UserPlaneV1: OSF See NOTE 2
NOTE 1: Any, All, or None of the optional requirements may be implemented. If any are implemented, then the dependencies implied in the SCR (appendix F) of [POC-CP] shall be adhered to. NOTE 2: Any, All, or None of the optional requirements may be implemented. If any are implemented, then the dependencies implied in the SCR (appendix A) of [POC-UP] shall be adhered to.			

Table 2 ERDEF for POC Server-side Requirements

Appendix A.   Change History   (Informative)

A.1   Approved Version History

Reference	Date	Description
OMA-ERELD-PoC-V1_0-20060609-A	09 Jun 2006	Status changed to Approved by TP: OMA-TP-2006-0201R02-ERP_PoCv1_0_for_Final_Approval