Enabler Release Definition for SIP Push

Candidate Version 1.0 – 01 Apr 2010

Open Mobile Alliance

OMA-ERELD-SIP_Push-V1_0-20100401-C

Contents

Figures

Tables

1. Scope

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

2. References

2.1 Normative References

[3GPP TS 23.228] "IP Multimedia Subsystem (IMS); Stage 2", 3GPP TS 23.228

[3GPP2 X.S0013-002-A] "All-IP Core Network Multimedia Domain: IP Multimedia Subsystem - Stage 2", Revision A, Version 2.0, 3GPP2, 2004

[draft-ietf-sip-gruu] "Obtaining and Using Globally Routable User Agent (UA) URIs (GRUU) in the Session Initiation Protocol"

[OMNA] "OMA Naming Authority". Open Mobile Alliance™. http://www.openmobilealliance.org/tech/omna

[PushSIP] "Push Using SIP", Version 1.0, Open Mobile Alliance™, OMA-TS-SIP_Push, 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

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

[SCRRULES] "SCR Rules and Procedures", Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures, URL:http://www.openmobilealliance.org/

2.2 Informative References

[PushSIPArch] "Push Using SIP Architecture", Version 1.0, Open Mobile Alliance™, OMA-AD-SIP_Push-, URL:http://www.openmobilealliance.org/

[PushSIPReq] "SIP Based Push Requirements", Version 1.0, Open Mobile Alliance™, OMA-RD-SIP_Push, 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.

3.2 Definitions

Application	An implementation of a related set of functions that perform useful work, often enabling one or more services. It may consist of software and/or hardware elements.
Enabler Release	Collection of specifications that combined together form an enabler for a service area, e.g. a download enabler, a browsing enabler, a messaging enabler, a location enabler, etc. The specifications that are forming an enabler should combined fulfil a number of related market requirements.
Minimum Functionality Description	Description of the guaranteed features and functionality that will be enabled by implementing the minimum mandatory part of the Enabler Release.
Push Content	Content, metadata and application level control information that has a shared interpretation by both Push Sender Agent and Push Receiver Agent.
Push Receiver Agent	Push Receiver Agent is a logical entity that uses the SIP Push procedure to receive Push Content, and generate a response to the Push Sender Agent request.
Push Resource Identifier	The identifier of a resource, i.e. a component, function, enabler, or application that can send, receive, or process requests.
Push Sender Agent	Push Sender Agent is a logical entity that creates a push request, and then uses the SIP Push procedure to send Push Content.

3.3 Abbreviations

ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
OMA	Open Mobile Alliance

4. Release Version Overview

This document outlines the Enabler Release Definition for SIP Push and the respective conformance requirements for Push Receiver Agent and Push Sender Agent implementing and claiming compliance to it as defined by Open Mobile Alliance across the specification baseline.

The SIP Push Enabler defines a service to deliver Push Content to a Push Receiver Agent utilizing the OMA architecture; the SIP Push architecture [PushSIPArch] further defines the architectural context of this service. This specification defines required functionalities of the Push Sender Agent and Push Receiver Agent.

The architectural context and entities are illustrated in the figure below:

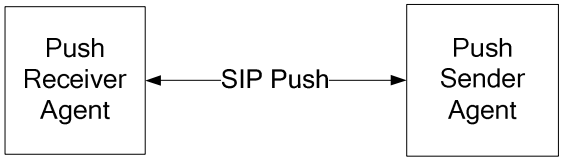

Figure 1: Push Sender Agent and Push Receiver Agent

In general terms, the functionality defined in this specification will be referred to as 'SIP Push' but in fact to properly achieve push service it is necessary that the Push Sender Agent and Push Receiver Agent interface with a SIP/IP Core network. An example of SIP/IP Core network definition is the 3GPP IMS [3GPP TS 23.228] and 3GPP2 MMD [3GPP2 X.S0013-002-A] networks.

This specification references specific SIP RFCs [RFC3261] to further clarify the use of SIP for push service in the context of particular SIP IP Core network definitions.

This specification encompasses the following:

1. SIP Push Protocol definition, including the push methods: page-mode, and session mode (INVITEMSRP).
2. Registration of Push Receiver Agents to SIP/IP Core network.
3. Push Resource Identifer.
4. Authentication and authorization for push service.
5. Capability delivery and resource negotiation by using SIP OPTIONS method.
6. Supporting multi-terminals belonging to the same user.

4.1 Version 1.0 Functionality (Informative)

The functionality required for SIP Push is divided into Push Sender Agent and Push Receiver Agent requirements. A subset of SIP Push requirements as defined in the RD [PushSIPReq] is included in this release, i.e. REQ1, REQ2, REQ4, REQ5, REQ6, REQ7, REQ8, REQ10, REQ11, REQ12, REQ16, REQ17, REQ18, REQ19, REQ20, and REQ22.

Push Sender Agent functionality includes:

- Delievy of Push Content in Pager-Mode (SIP MESSAGE method), and Session Mode (SIP INVITE & MSRP method).
- Push Resource Identifier.
- Capability delivery and resource negotiation.

- Multi-terminal support via using GRUU [draft-ietf-sip-gruu].

Push Receiver Agent functionality includes:

- Reception of Push Content in Pager-Mode (SIP MESSAGE method) and Session Mode (SIP INVITE & MSRP method).
- SIP/IP Core registration method with SIP IP/Core network and requesting GRUU [draft-ietf-sip-gruu] value.
- Push Resource Identifier.
- Supporting capability delivery and resource negotiation.

5. Document Listing for SIP PUSH (Informative)

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[PushSIPReq]	OMA-RD-SIP_Push-V1_0-20050130-C	Requirement Document for SIP Push Enabler
Architecture Document		
[PushSIPArch]	OMA-AD-SIP_Push-V1_0-20081202-C	Architecture Document for SIP Push Enabler
Technical Specifications		
[**Error! Reference source not found.**]	OMA-TS-SIP_Push-V1_0-20100401-C	Technical Specification that defines the protocol for SIP Push that provides control interface between the Push Sender Agent and Push Receiver Agent.

Table 1: Listing of Documents in SIP PUSH Enabler

6. Conformance Requirements Notation Details (Informative)

The tables in the chapter 7 and 8 use the following notation:

Item: Entry in this column MUST be a valid ScrItem according to [SCRRULES].

Feature/Application: Entry in this column SHOULD be a short descriptive label to the **Item** in question.

Requirement: Expression in the column MUST be a valid TerminalExpression according to [SCRRULES] and it MUST accurately reflect the architectural requirement of the **Item** in question.

7. ERDEF for SIP Push – Receiver Agent Requirements (Informative)

Item	Feature / Application	Requirement
OMA-ERDEF-SIPPush-C-001-M	SIP Push Receiver Agent	[**Error! Reference source not found.**]: MCF

Table 2: ERDEF for SIP Push Recevier Agent Requirements

8. ERDEF for SIP Push – Sender Agent Requirements (Informative)

Item	Feature / Application	Requirement
OMA-ERDEF-SIP Push-S-001-M	SIP Push Sender Agent	[**Error! Reference source not found.**]: MSF

Table 3: ERDEF for SIP Push Sender Agent Requirements

9. OMNA Consideration

SIP Push implementation enabler SHALL register any required Push Resource Identifier values through OMNA [OMNA].

Appendix A. Change History (Informative)

A.1 Approved Version History

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

A.2 Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ERELD-SIP_Push-V0_1	20 Sep 2006	All	Initial draft of SIP Push enabler
	28 Sep 2007		Editorial fixes: - Versioning fixed from 0.1 to 1.0 - Cover page with correct filename - 2007 template/copyright
	28 Nov 2007		Update references, Remove Presence reference Add INVITE/MSRP methods
	12 Mar 2008		Clarify the client capabilities requirements and clean up section 4.1
	13 Mar 2008	All	2008 template applied Cross-references fixed History box fixed
	14 Mar 2008		Section 5 of ERELD updated to list TS updated with 2008 template
	13 Aug 2008		Implements all of comments per OMA-CONRR-CD_SIPPush-V1_0-20080813-D.doc
	29 Aug 2008		OMA-CD-PUSH-2008-0121R01-CR_CR_ERELD_Section4_1_CommentD001.doc CONRR #D003 Only editorial changes from OMA-ERELD-SIP_Push-V1_0-20080813-D_rev1.doc
	08 Sep 2008	2.1 5	Minor editorial fixes: Normative References sorted alphabetically List corrected with full RD, AD and TS titles
Candidate Version: OMA-ERELD-SIP_Push-V1_0	12 Dec 2008	All	Status changed to Candidate by TP: OMA-TP-2008-0439-INP_SIP_Push_V1_0_ERP_for_Candidate_Approval
Draft Versions OMA-ERELD-SIP_Push-V1_0	17 Mar 2010	All	2010 template applied Document Listing updated
Candidate Version: OMA-ERELD-SIP_Push-V1_0	01 Apr 2010	All	Status changed to Candidate by TP: OMA-TP-2010-0171-INP_SIP_PUSH_V1_0_ERP_for_Notification