



Enabler Release Definition for OMA Presence SIMPLE

Candidate Version 2.0 – 17 Sep 2009

Open Mobile Alliance
OMA-ERELD-Presence_SIMPLE-V2_0-20090917-C

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1. Scope

The scope of this document is limited to the Enabler Release Definition of the Presence SIMPLE V2.0 enabler according to OMA Release process and the Enabler Release specification baseline listed in section 5.

2. References

2.1 Normative References

OMA

- [PRS_AC] “Presence Application Characteristics file of Presence”, Version 1.0, Open Mobile Alliance™, OMA-SUP-AC_ap0009_presence-V1_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_AD] “Presence SIMPLE Architecture Document”, Version 2.0, Open Mobile Alliance™, OMA-AD-Presence_SIMPLE-V2_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_ContXDM] “Presence Content XDM Specification”, Version 1.0, Open Mobile Alliance™, OMA-TS-Presence_SIMPLE_Content_XDM-V1_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_HSA] “Presence Home Subscription Agent (HSA) Specification”, Version 1.0, Open Mobile Alliance™, OMA-TS-Presence_SIMPLE_HSA-V1_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_MO] “OMA Management Object for Presence SIMPLE”, Version 2.0, Open Mobile Alliance™, OMA-TS-Presence_SIMPLE_MO-V2_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_MO_DDF] “PRS ddf”, Version 2.0, Open Mobile Alliance™, OMA-SUP-MO_oma_prs-V2_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_PresXDM] “Presence SIMPLE XDM Specification”, Version 2.0, Open Mobile Alliance™, OMA-TS-Presence_SIMPLE_XDM-V2_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_RD] “Presence SIMPLE Requirements Document”, Version 2.0, Open Mobile Alliance™, OMA-RD-Presence_SIMPLE-V2_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_RLS] “Resource List Server (RLS) Specification”, Version 1.0, Open Mobile Alliance™, OMA-TS-Presence_SIMPLE_RLS-V1_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_RLSXDM] “Resource List Server (RLS) XDM Specification”, Version 2.0, Open Mobile Alliance™, OMA-TS-Presence_SIMPLE_RLS_XDM-V2_0,
URL: <http://www.openmobilealliance.org/>
- [PRS_Spec] “Presence SIMPLE Specification”, Version 2.0, Open Mobile Alliance™, OMA-TS-Presence_SIMPLE-V2_0,
URL: <http://www.openmobilealliance.org/>
- [SCRRULES] “SCR Rules and Procedures”, Open Mobile Alliance™, OMA-ORG-SCR_Rules_and_Procedures,
URL: <http://www.openmobilealliance.org/>
- [XSD_content] “XML Schema Definition: Content for Presence”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_prs_content-V1_0,
URL: <http://www.openmobilealliance.org/>
- [XSD_presRules] “XML Schema Definition: PRS – Pres rules”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_prs_presrules-V1_0,
URL: <http://www.openmobilealliance.org/>
- [XSD_pubRules] “XML Schema Definition: PRS – Pres Pub rules”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_prs_pubRules-V1_0,
URL: <http://www.openmobilealliance.org/>
- [XSD_suppNot] “XML Schema Definition: Presence – Event Notification Suppression Filter”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_prs_suppnotFilter-V1_0,
URL: <http://www.openmobilealliance.org/>

IETF

- [RFC2119] IETF RFC 2119 “Key words for use in RFCs to Indicate Requirement Levels”, S. Bradner, Mar 1997,
URL: <http://www.ietf.org/rfc/rfc2119.txt>

2.2 Informative References

IETF

- [RFC2387] IETF RFC 2387 “The MIME Multipart/Related Content-type”, E. Levinson, Aug 1998,
URL: <http://www.ietf.org/rfc/rfc2387.txt>
- [RFC3265] IETF RFC 3265 “Session Initiation Protocol (SIP)-Specific Event Notification”, A. B. Roach, Jun 2002,
URL: <http://www.ietf.org/rfc/rfc3265.txt>
- [RFC3856] IETF RFC 3856 “A Presence Event Package for the Session Initiation Protocol (SIP)”, J. Rosenberg, Jan. 2003,
URL: <http://www.ietf.org/rfc/rfc3856.txt>
- [RFC3857] IETF RFC 3857 “A watcher Information Event Template-Package for the Session Initiation Protocol (SIP)”, J. Rosenberg, Aug 2004,
URL: <http://www.ietf.org/rfc/rfc3857.txt>
- [RFC3858] IETF RFC 3858 “An Extensible Markup Language (XML) Based Format for Watcher Information”, J. Rosenberg, Aug 2004,
URL: <http://www.ietf.org/rfc/rfc3858.txt>
- [RFC3903] IETF RFC 3903 “An Event State Publication Extension to the Session Initiation Protocol (SIP)”, A. Niemi, Oct 2004,
URL: <http://www.ietf.org/rfc/rfc3903.txt>
- [RFC4483] IETF RFC 4483 “A Mechanism for Content Indirection in Session Initiation Protocol (SIP) Messages”, E. Burger, Ed., May 2006,
URL: <http://www.ietf.org/rfc/rfc4483.txt>
- [RFC4660] IETF RFC 4660 “Functional Description of Event Notification Filtering”, H.Khartabil et al., Sep 2006,
URL: <http://www.ietf.org/rfc/rfc4660.txt>
- [RFC4661] IETF RFC 4661 “An Extensible Markup Language (XML) Based Format for Event Notification Filtering”, H. Khartabil et al., Sep 2006,
URL: <http://www.ietf.org/rfc/rfc4661.txt>
- [RFC4662] IETF RFC 4662 “A Session Initiation Protocol (SIP) Event Notification Extension for Resource Lists”, A. B. Roach et al., Aug 2006,
URL: <http://www.ietf.org/rfc/rfc4662.txt>
- [RFC5262] IETF RFC 5262 “Presence Information Data format (PIDF) Extension for Partial Presence”, M. Lonnfors et al., Sep 2008,
URL: <http://www.ietf.org/rfc/rfc5262.txt>
- [RFC5263] IETF RFC 5263 “Session Initiation Protocol (SIP) extension for Partial Notification of Presence Information”, M.Lonnfors et al., Sep 2008,
URL: <http://www.ietf.org/rfc/rfc5263.txt>
- [RFC5264] IETF RFC 5264 “Publication of Partial Presence Information”, M. Lonnfors et al., Sep 2008,
URL: <http://www.ietf.org/rfc/rfc5264.txt>
- [RFC5367] IETF RFC 5267 “Subscriptions to Request-Contained Resource Lists in the Session Initiation Protocol (SIP)”, G. Camarillo et al., Oct 2008,
URL: <http://www.ietf.org/rfc/rfc5267.txt>
- [IETF-EventRateControl] IETF draft-ietf-sipcore-event-rate-control-00 “Session Initiation Protocol (SIP) Event Notification Extension for Notification Rate Control”, A. Niemi et al., May 11, 2009,
URL: <http://www.ietf.org/internet-drafts/draft-ietf-sipcore-event-rate-control-00.txt>
- Note: IETF Draft work in progress
- [IETF-SubNotEtag] IETF draft-ietf-sipcore-subnot-etags-02 “An Extension to Session Initiation Protocol (SIP) Events for Conditional Event Notification”, A. Niemi, Apr 22, 2009,
URL: <http://www.ietf.org/internet-drafts/draft-ietf-sipcore-subnot-etags-02.txt>

[IETF-ViewShare]

Note: IETF Draft work in progress

IETF draft-ietf-simple-view-sharing-02 “Optimizing Federated Presence with View Sharing”, J. Rosenberg et al., Nov 3 2008,
URL: <http://www.ietf.org/internet-drafts/draft-ietf-simple-view-sharing-02.txt>

Note: IETF Draft work in progress

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”, “Release Version Overview”, and “Conformance Requirements Notation”, are normative, unless they are explicitly indicated to be informative.

The formal notation convention used in sections 7 and 8 to formally express the structure and internal dependencies between specifications in the Enabler Release specification baseline is detailed in [SCRRULES].

3.2 Definitions

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.
Presence Information	Use definition from [PRS_RD].
Presence Server	Use definition from [PRS_RD].
Presence Service	Use definition from [PRS_RD].
Presence Source	Use definition from [PRS_RD].
Presenty	Use definition from [PRS_RD].
Request-contained Resource List	Use definition from [PRS_AD].
Resource List	Use definition from [PRS_AD].
Subscription Service	Use definition from [PRS_HSA].
Watcher	Use definition from [PRS_RD].
Watcher Information	Use definition from [PRS_RD].
Watcher Information Subscriber	Use definition from [PRS_RD].

3.3 Abbreviations

ERDEF	Enabler Requirement Definition
ERELD	Enabler Release Definition
HSA	Home Subscription Agent
OMA	Open Mobile Alliance
RLS	Resource List Server
SIMPLE	SIP for Instant Messaging and Presence Leveraging Extensions
SIP	Session Initiation Protocol
XDM	XML Document Management
XDMS	XML Document Management Server

4. Release Version Overview

4.1 Version 1.1

4.1.1 Version 1.1.1

The OMA PRS 1.1 enabler defines a Presence Service framework that includes the following functionalities:

- Subscription, publication, and notification of presence state based on [RFC3265], [RFC3856] and [RFC3903];
- Subscriptions and notifications of Watcher Information state, based on [RFC3857] and [RFC3858];
- Subscriptions to a Presence List, based on [RFC4662];
- Functionalities to authorize Presence Information (i.e. Presence Subscription Rules):
 - Subscription Authorization Rules based on [PRS_PresXDM];
 - Subscription Content Rules based on [PRS_PresXDM];
- The handling of large Presence Information content, based on [RFC2387] and [RFC4483];
- Functionalities to minimize presence traffic:
 - The partial publication of Presence Information, based on [RFC5264] and [RFC5262];
 - The partial notification of Presence Information, based on [RFC5263] and [RFC5262];
 - The control of the content of the notifications sent to a Watcher, based on [RFC4660] and [RFC4661];
 - Triggers for the generation of notifications, based on [RFC4660] and [RFC4661];
 - Compression of presence traffic.

4.2 Version 2.0

The OMA PRS 2.0 enabler extends the OMA PRS 1.1 enabler to include the following functionalities:

- Subscriptions to a Request-contained Presence List and Request-contained Watcher Information List, based on [RFC5367];
- Functionalities to authorize publication of Presence Information (i.e. Presence Publication Rules):
 - Publication Authorization Rules based on [PRS_PresXDM]; and
 - Publication Content Rules based on [PRS_PresXDM];
- Setting of Permanent Presence State, based on [PRS_PresXDM];
- Watcher service authorization;
- PS-controlled Presence Information re-publication;
- Functionalities to minimize presence traffic:
 - Triggers for the generation of notifications, based on [IETF-EventRateControl];
 - Conditional Event Notification, based on [IETF-SubNotEtag];
 - View-sharing for Watchers, based on [IETF-ViewShare];
 - Optimizing publication of Presence Information;
 - Event notification suppression; and
 - Enhancements to compression of presence traffic.

- Subscription to changes in XML documents stored in an XDMS.

The following OMA PRS 1.1 functionalities to minimize presence traffic were changed from MAY to SHOULD for the PS and RLS in OMA PRS 2.0:

- The control of the content of the notifications sent to a Watcher, based on [RFC4660] and [RFC4661];
- Triggers for the generation of notifications, based on [RFC4660] and [RFC4661];

The following OMA PRS 1.1 functionalities to minimize presence traffic were changed from MAY to SHALL for the PS in OMA PRS 2.0:

- The partial publication of Presence Information, based on [RFC5264] and [RFC5262];

The OMA PRS 2.0 enabler also extends the scope of the Presence List document to a generic Resource List document defined in [PRS_RLSXDM].

5. Document Listing for Presence SIMPLE

This section is normative.

Doc Ref	Permanent Document Reference	Description
Requirement Document		
[PRS_RD]	OMA-RD-Presence_SIMPLE-V2_0-20081223-C	Requirements Document for Presence SIMPLE Enabler.
Architecture Document		
[PRS_AD]	OMA-AD-Presence_SIMPLE-V2_0-20090917-C	Architecture Document for Presence SIMPLE Enabler
Technical Specifications		
[PRS_Spec]	OMA-TS-Presence_SIMPLE-V2_0-20090917-C	Defines an application level specification for the OMA SIP/SIMPLE-based Presence Service.
[PRS_ContXDM]	OMA-TS-Presence_SIMPLE_Content_XDM-V1_0-20081223-C	Defines the data format and Application Usage for the Presence Content document.
[PRS_HSA]	OMA-TS-Presence_SIMPLE_HSA-V1_0-20090917-C	Defines the HSA which is the entity that controls the Subscriber's access to the Subscription Service.
[PRS_PresXDM]	OMA-TS-Presence_SIMPLE_XDM-V2_0-20090917-C	Defines the data format and Application Usage for the Presence Subscription Rules document, the Permanent Presence State document, the Presence Publication Rules document, and the Publication Content Rules Presence Source View.
[PRS_RLS]	OMA-TS-Presence_SIMPLE_RLS-V1_0-20090917-C	Defines the Resource List Server (RLS) that accepts and manages subscriptions to Resource Lists and Request-contained Resource Lists.
[PRS_RLSXDM]	OMA-TS-Presence_SIMPLE_RLS_XDM-V2_0-20090917-C	Defines the data format and Application Usage for the Presence List document.
[PRS_MO]	OMA-TS-Presence_SIMPLE_MO-V2_0-20090917-C	Defines the OMA Presence SIMPLE Management Object (MO).
Supporting Files		
[XSD_content]	OMA-SUP-XSD_prs_presContent-V1_0-20081223-C	XML Schema for Presence Content document. Working file in schema directory: file: prs_content-v1_0.xsd path: http://www.openmobilealliance.org/tech/profiles/
[XSD_presRules]	OMA-SUP-XSD_prs_presrules-V1_0_1-20080627-A	XML Schema for Presence Authorisation Rules document. Working file in schema directory: file: prs_presrules-v1_0.xsd path: http://www.openmobilealliance.org/tech/profiles/
[XSD_pubRules]	OMA-SUP-XSD_prs_pubRules-V1_0-20081223-C	XML Schema for Publication Authorization and Content Rules document. Working file in schema directory: file: prs_pubRules-v1_0.xsd path: http://www.openmobilealliance.org/tech/profiles/
[XSD_suppNot]	OMA-SUP-XSD_prs_suppnotFilter-V1_0-20081223-C	XML Schema for presence-based event notification suppression filter. Working file in schema directory: file: prs_suppnotFilter-v1_0.xsd path: http://www.openmobilealliance.org/tech/profiles/
[PRS_AC]	OMA-SUP-AC_ap0009_presence-V1_0-20081223-C	Description of the Application Characteristic for Presence SIMPLE.

		Working file in Application Characteristics directory: file: ac_ap0009_presence-v1_0.txt path: http://www.openmobilealliance.org/tech/omna/dm-ac/
[PRS_MO_DDF]	OMA-SUP-MO_oma_prs-V2_0-20090917-C	Description of the .ddf for PRS. It is aligned with the [PRS_MO] spec. Working file in PRS Managed Object directory: file: oma_prs-v2_0.ddf path: http://www.openmobilealliance.org/tech/omna/prs_mo

Table 1: Listing of Documents in Presence SIMPLE Enabler

6. OMNA Considerations

OMNA SHALL register the following new MIME type for the presence-based event notification suppression filter: “application/vnd.oma.suppnot+xml”.

OMNA SHALL register the XML schemas specified in [XSD_pubRules], [XSD_suppNot] and [XSD_content].

7. Conformance Requirements Notation Details

This section is informative

The tables in following chapters 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.

8. ERDEF for Presence SIMPLE – Client Requirements

This section is normative.

Item	Feature/Application	Requirement
OMA-ERDEF-PRS-C-001-M	Presence Source functions	PRS-SPEC-SRC:MCF
OMA-ERDEF-PRS-C-002-M	Presence-specific Application Usages	PRS-XDM-XDMC:MCF AND PRS-RLSXDM- XDMC:MCF AND PRS- CONTXDM:MCF
OMA-ERDEF-PRS-C-003-M	Watcher functions	PRS-SPEC-W:MCF
OMA-ERDEF-PRS-C-004-M	Watcher Information Subscriber functions	PRS-SPEC-WIS:MCF

Table 2: ERDEF for Presence SIMPLE – Client Requirements

9. ERDEF for Presence SIMPLE – Server Requirements

This section is normative.

Item	Feature/Application	Requirement
OMA-ERDEF-PRS-S-001-M	Presence Server functions	PRS-SPEC-PS:MSF
OMA-ERDEF-PRS-S-002-M	Resource List Server functions	PRS-SPEC-RLS:MSF
OMA-ERDEF-PRS-S-003-M	Presence-specific Application Usages	PRS-XDM-XDMS:MSF AND PRS-RLSXDM- XDMS:MSF AND PRS- CONTXDM:MSF

Table 3: ERDEF for Presence SIMPLE – Server Requirements

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 2.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ERELED-Presence_SIMPLE-V2_0	13 Nov 2007	n/a	First Draft
	23 Nov 2007	5	Editorial changes of dates
	12 Mar 2008	All	Incorporated CR: OMA-PAG-2008-0149
	21 Apr 2008	5	Editorial changes of dates
	28 May 2008	All	Incorporated CR: OMA-PAG-2008-0350
	26 Aug 2008	4.2, 7, 8	Incorporated CR: OMA-PAG-2008-0540
	04 Nov 2008	2.1, 4.1, 4.2, 5	Incorporated CRs: OMA-PAG-2008-0724R01 OMA-PAG-2008-0780
	13 Nov 2008	5	Section 5 updated.
Candidate Version OMA-ERELED-Presence_SIMPLE-V2_0	23 Dec 2008	N/A	Status changed to Candidate by TP TP ref # OMA-TP-2008-0490- INP_Presence_SIMPLE_V2_0_ERP_for_Candidate_Approval
Draft Versions OMA-ERELED-Presence_SIMPLE-V2_0	14 Aug 2009	2.1, 3.2, 3.3, 5, new section 6, 2.1, 5	Incorporated CRs: OMA-PAG-2009-0096R01 OMA-PAG-2009-0227 OMA-PAG-2009-0225R02 OMA-PAG-2009-0231 OMA-PAG-2009-0232
	03 Sep 2009	5	Section 5 updated to reflect the changes to: OMA-TS-Presence_SIMPLE-V2_0-20090903-D OMA-TS-Presence_SIMPLE_XDM-V2_0-20090903-D
Candidate Version OMA-ERELED-Presence_SIMPLE-V2_0	17 Sep 2009	N/A	Status changed to Candidate by TP TP ref # OMA-TP-2009-0438- INP_PRS_V2_0_ERP_for_Notification