Presence SIMPLE Requirements

Approved Version 2.0 – 10 Jul 2012

Open Mobile Alliance

OMA-RD-Presence_SIMPLE-V2_0-20120710-A

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1. Scope (Informative)

This document contains use cases and requirements for the OMA Presence SIMPLE 2.0 enabler, taking into consideration the demands of end-users, service providers, and system implementers.

2. References

2.1 Normative References

[3GPP2-S.R0062] 3GPP2 S.R0062 "Presence for Wireless Systems; Stage 1 Requirements",
URL: http://www.3gpp2.org/Public_html/specs/index.cfm

[3GPP-TS_22.141] 3GPP TS 22.141 "Presence Service; Stage 1",
URL: http://www.3gpp.org/ftp/Specs/archive/22_series/22.141/

[3GPP-TS_23.141] 3GPP TS 23.141 "Presence Service; Architecture and functional description",
URL: http://www.3gpp.org/ftp/Specs/archive/23_series/23.141/

[PDE_RD] "Presence SIMPLE Data Extensions Requirements", Version 1.0, Open Mobile Alliance™, OMA-RD-Presence_Data_Ext-V1_0,
URL: http://www.openmobilealliance.org/

[Privacy] "OMA Privacy Requirements for Mobile Services", Version 1.0, Open Mobile Alliance™, OMA-RD_Privacy-V1_0,
URL: http://www.openmobilealliance.org/

[PRS_RD-V1_1] "Presence SIMPLE Requirements", Version 1.1, Open Mobile Alliance™, OMA-RD-Presence_SIMPLE-V1_1,
URL: http://www.openmobilealliance.org/

[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

[RFC2778] IETF RFC 2778 "A Model for Presence and Instant Messaging", M. Day et al., Feb 2000,
URL: http://www.ietf.org/rfc/rfc2778.txt

[RFC3261] IETF RFC 3261 "Session Initiaton Protocol (SIP)", J. Rosenberg et al., Jun 2002,
URL: http://www.ietf.org/rfc/rfc3261.txt

[XDM_RD] "XML Document Management Requirements", Version 2.0, Open Mobile Alliance™, OMA-RD-XDM-V2_0,
URL: http://www.openmobilealliance.org/

3GPP/3GPP2

IETF

OMA

2.2 Informative References

3GPP/3GPP2

[3GPP-TS_22.250] 3GPP TS 22.250 "IP Multimedia Subsystem (IMS) group management",
URL: http://www.3gpp.org/ftp/Specs/archive/22_series/22.250/

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

Communication Means	Indicates a method whereby communication can take place. Instant message service is one example of a Communication Means. (Source: [RFC2778])
Delegated Subscription	The Subscription made on behalf of a Delegating Watcher.
Delegating Watcher	A Watcher that authorizes another Watcher to subscribe on his behalf.
Fetcher	A form of Watcher that has asked the Presence Service for the Presence Information of one or more Presentities, but is not requesting a Notification from the Presence Service of (future) changes in a Presentity’s Presence Information. (Source: [3GPP-TS_22.141]) NOTE: This definition differs slightly from the [RFC2778] definition, but is identical to [3GPP2-S.R0062].
Notification	A message sent from the Presence Service to a Subscribed-watcher when there is a change in the Presence Information of some Presentity of interest, as recorded in one or more Subscriptions. (Source: [RFC2778])
One-time Event Subscription and Notification	One-time Event Subscription and Notification is the feature that enables Subscribed-watchers to place a Subscription that will generate a single Notification and then terminate itself.
Permanent Presence Information	Static or semi-static set of information pertaining to a Presentity that typically includes Presence Information Elements such as status for Communication Means that are always open for communication such as e-mail, or default state of any person, service, or device in the absence of any device capable of actively publishing such state.
Poller	A Fetcher that requests Presence Information on a regular basis. (Source: [3GPP-TS_22.141]) NOTE: This definition is identical to [RFC2778] and [3GPP2-S.R0062] definitions.
Presence Information	Dynamic set of information pertaining to a Presentity that may include Presence Information Elements such as the status, reachability, willingness, and capabilities of that Presentity. NOTE: This definition is compatible with the 3GPP/3GPP2 definitions, as well as the IETF definition, though the latter is quite generic.
Presence Information Element	A basic unit of Presence Information.
Presence External Agent	A Presence Source element that is located outside of the service provider’s network.
Presence Network Agent	A network located element that collects and sends network related Presence Information on behalf of the Presentity to a Presence Server. This is a type of Presence Source. (Source: [3GPP-TS_23.141])
Presence Server	A logical entity that receives Presence Information from a multitude of Presence Sources pertaining to the Presentities it serves and makes this information available to Watchers according to the rules associated with those Presentities. NOTE: In IETF SIMPLE Presence, a Presence Server is referred to as a Presence Agent.
Presence Service	The capability to support management of Presence Information between Watchers and Presentities, in order to enable applications and services to make use of Presence Information. (Source: [3GPP-TS_22.141]) NOTE: This definition differs from the [RFC2778] definition, but is identical to [3GPP2-S.R0062].

Presence Source	A logical entity that provides Presence Information pertaining to exactly one or more Presentities to the Presence Server. 3GPP/3GPP2 Presence User Agents, Presence Network Agents, and Presence External Agents are examples of Presence Sources. NOTE: In IETF SIMPLE Presence, Presence Sources are referred to as Presence User Agents. In [RFC2778], they are referred to as Presentities.
Presence User Agent	A terminal or network located element that collects and sends user related Presence Information to a Presence Server on behalf of a Presentity. This is a type of Presence Source. (Source: [3GPP-TS_23.141]) NOTE: This definition differs from the [RFC2778] definition.
Presentity	A logical entity that has Presence Information associated with it. This Presence Information may be composed from a multitude of Presence Sources. A Presentity is most commonly a reference for a person, although it may represent a role such as "help desk" or a resource such as "conference room #27". The Presentity is identified by a SIP URI, and may additionally be identified by a tel URI or a pres URI. NOTE: This definition maps better to the [RFC2778] definition of a Principal, rather than that of [RFC2778] Presentity. This definition is compatible with the 3GPP/3GPP2 definitions of Presentity, as well as that of IETF SIMPLE Presence.
Provisioning	An action taken by the service provider to make the Presence Service available to a user. Provisioning may be general, where the service may be made available to all users without prior arrangements being made with the service provider, or it may be pre-arranged, where the service is made available to an individual user only after the necessary arrangements (e.g., login name, password) have been made with the service provider. (Source: [3GPP2-S.R0062])
Subscribed-watcher	A type of Watcher, which requests Notification from the Presence Service of changes in a Presentity's Presence Information, resulting in a Watcher-subscription, as they occur in the future. (Source: [3GPP-TS_22.141]) NOTE: In [RFC2778], Subscribed-watchers are referred to as subscribers.
Subscription	The information kept by the Presence Service about a Subscribed-watcher's request to be notified of changes in the Presence Information of one or more Presentities. (Source: [RFC2778], [3GPP-TS_22.141]) NOTE: This definition represents an entity's request to obtain Presence Information, and is not related to the term "subscription" in [3GPP-TS_22.250].
Watcher	Any uniquely identifiable entity that requests Presence Information about a Presentity from the Presence Service. Special types of Watcher are Fetcher, Poller, and Subscribed-watcher. (Source: [3GPP-TS_22.141]) NOTE: This definition differs slightly from [RFC2778] and [3GPP2-S.R0062] definitions.
Watcher Information	Information about Watchers that have received or may receive Presence Information about a particular Presentity within a particular recent span of time. (Source: [3GPP-TS_22.141]) NOTE: This definition differs slightly from the [RFC2778] definition, but is identical to [3GPP2-S.R0062].
Watcher Information Subscriber	Any uniquely identifiable entity that requests Watcher Information about a Watcher from the Presence Service. (Source: [3GPP-TS_22.141])

3.3 Abbreviations

3GPP	3rd Generation Partnership Project
3GPP2	3rd Generation Partnership Project 2
CIPID	Contact Information in Presence Information Data Format
GPRS	General Packet Radio Service
IETF	Internet Engineering Task Force
IM	Instant Messaging

IMPS	Instant Messaging and Presence Service (aka Wireless Village)
IMS	IP Multimedia Subsystem
IP	Internet Protocol
ISDN	Integrated Services Digital Network
MSISDN	Mobile Station International ISDN Number
OMA	Open Mobile Alliance
PoC	Push to talk Over Cellular
PRS	Presence SIMPLE
RFC	Request For Comments
RPID	Rich Presence Information Data
SIMPLE	SIP for Instant Messaging and Presence Leveraging Extensions
SIP	Session Initiation Protocol
SMS	Short Messaging Service
URI	Uniform Resource Identifier
VoIP	Voice over IP
XCAP	XML Configuration Access Protocol
XML	eXtensible Markup Language

4. Introduction (Informative)

4.1 OMA Presence Mandate

SIP/SIMPLE by IETF is accompanied with a set of RFCs (such as RPID, CIPID, and XCAP). 3GPP and 3GPP2 specify the practical implementations of IETF specifications in IMS and MMD respectively. Both transport of IP traffic and use of SIP as signaling protocol are commonly known as SIP/IP Core. On top of all this, OMA SIMPLE Presence Service specifications, developed in REQ and PAG WGs, define a SIP/SIMPLE-based Presence Service.

OMA's role is to create application level specifications for Presence Service. This includes Presence Information semantics and guidelines for presence applications (see Figure 1). These specifications shall be agnostic to the underlying network technology, be it specified by 3GPP, 3GPP2, or other organizations.

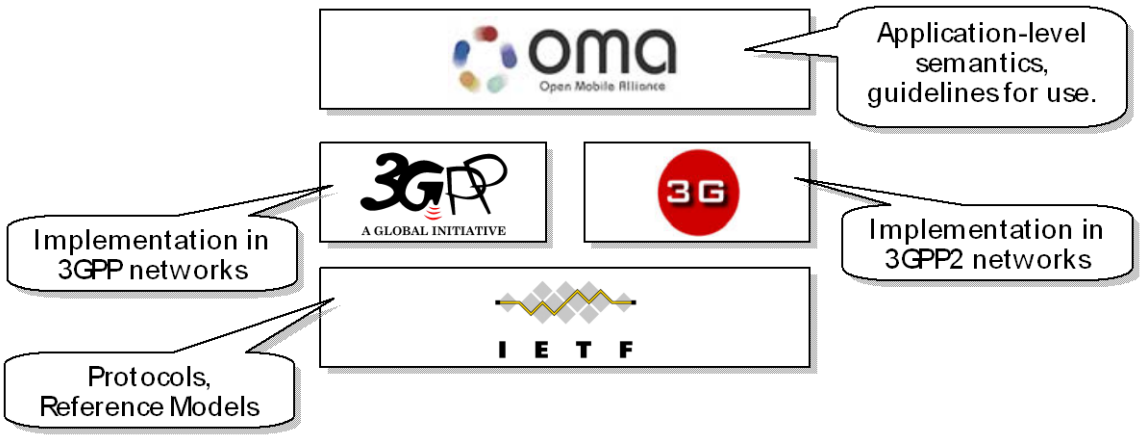

Figure 1. Presence specification layers

4.2 Service Overview

A Presence Service is a software system whose role is to collect and disseminate Presence Information, subject to a wide variety of controls. This document includes requirements pertaining to the mechanisms utilized in collecting and disseminating Presence Information, including the means to do so in a controlled way (e.g. publish, subscribe, notify, etc.).

The requirements pertaining to specific types of Presence Information content (e.g. willingness to communicate, device/application status, etc.) are described in [PDE_RD].

4.3 Presence Information, Sources and Watchers

The SIP/SIMPLE data model was originally designed from a communication channel point of view to express whether a certain communication channel (voice, SMS, etc) is available and the priority of that channel.

The SIP/SIMPLE data model has been extended with person information, the communication mean(s) the person is using and the device(s) being used to deliver the service(s).

Figure 2 illustrates the Presence Information sources and Watchers that need to be taken into account in OMA specifications:

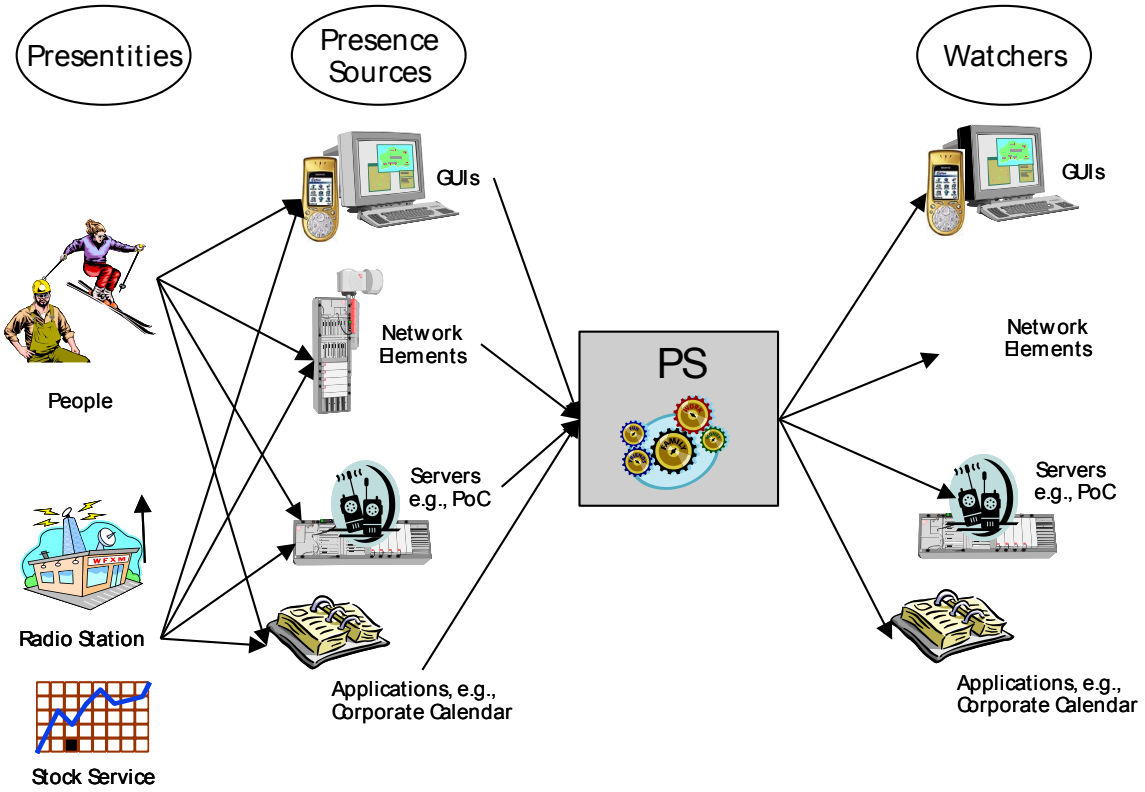

Figure 2. Presence Service components.

- *People*, human presence users, publish their personal Presence Information. To do this, a user may use an application in her mobile phone or a desktop application; the Presentity's state may also include communication channels' states, such as VoIP, video, or PoC.
- *Non-human Presentities* may also publish Presence Information, for example, a radio station may want to publish the song currently playing, and a call center might publish information about congestion situation such as waiting line size and expected waiting time.
- *Network elements*, for example, may produce Presence Information pertaining to a person, for example, whether a person is registered to the network or not. Network elements may also consume Presence Information.
- Yet another group of Presence Information sources and Watchers are *application servers* and *applications* in the network. For instance, a corporate calendar application could update an employee's availability information based on behaviour.

4.4 Presence Information Processing

There are several stages of processing that need to take place before the Presence Information can be disseminated further, as shown in Figure 3.

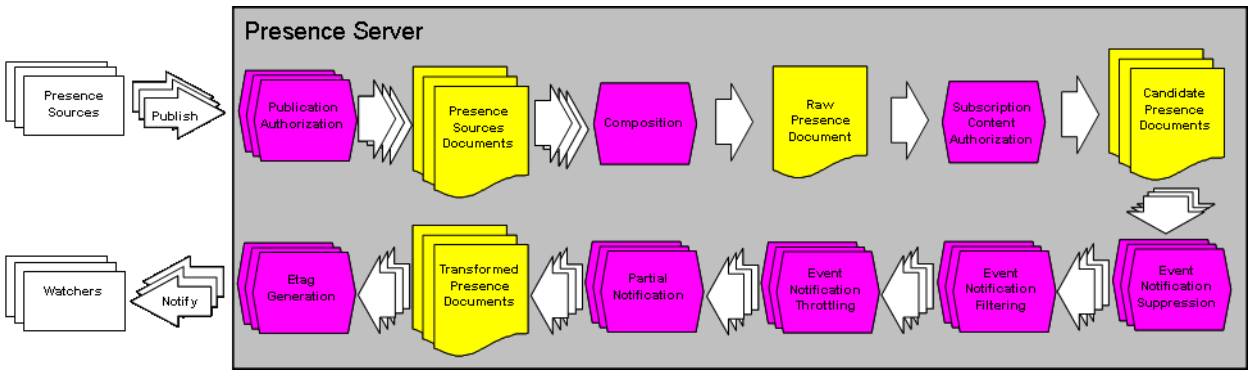

Figure 3. Processing of Presence Information

The Composition function takes the Presence Information originating from several Presence Sources but pertaining to one Presentity and, according to composition rules, creates a raw presence document. After that, authorization is performed for all Watchers subscribed to the Presentity's Presence Information resulting in several parallel documents, i.e. parallel views. This is necessary because not all Watchers are intended to see the same Presence Information Elements. Each of these documents is subject to per-watcher or per-watcher-group transformation, which includes, e.g., filtering and partial Notification.

Then, the number of Notifications may be cut down by throttling or event suppression, if such features are supported, and the resulting Notifications are passed outside the Presence Service.

4.5 Communicating Preferences to End-users using Presence Information

One of the purposes of publishing Presence Information about an end user to authorized Watchers is to set appropriate expectations among communications partners, thereby increasing the chance of successful communications using the most suitable or preferred communications means.

To set the correct expectations to potential communicating partners, a user's Presentity may provide different Presence Information to different Watchers, for instance "willing/available" to some and "unwilling/not available" to others.

In addition, a Watcher may receive a status of "unwilling/unavailable" that applies to one or more, or all Communication Means. As such, Presentities can communicate which types of incoming sessions they want to accept.

Furthermore, the Presence Service provides certain mechanisms to Presence Sources. For example, presence state may be associated with a certain validity duration, in order to communicate its "freshness".

Thus, Watchers should ensure they understand and use those mechanisms in order to interpret the Presence Information in a consistent and accurate manner. Additionally, when a user agent renders Presence Information to be viewed by an end-user, it should do so in a way that accurately portrays the received Presence Information. For example, if a certain element of Presence Information expires, then the user agent should present this appropriately to the user.

One of the roles for the requirements in this document is to facilitate the publication and notification of the Presence Information in order to convey it to potential partners in communications, such that both parties can consistently interpret this information and have the correct expectations for any subsequent communications.

5. Use Cases (Informative)

The following use cases are provided to further illustrate the functions and roles of the various system elements in the Presence framework and the inter-related functions performed by the Presence Server.

5.1 Provisioning

5.1.1 Setting Up My Presence Service

See [PRS_RD-V1_1] "*Setting Up My Presence Service*".

5.2 Basic Presence Usage

5.2.1 Sharing Presence Information A

See [PRS_RD-V1_1] "*Sharing Presence Information A*".

5.2.2 Sharing Presence Information B

See [PRS_RD-V1_1] "*Sharing Presence Information B*".

5.2.3 Finding Other Presence Users

See [PRS_RD-V1_1] "*Finding Other Presence Users*".

5.2.4 Updating Presence Information

See [PRS_RD-V1_1] "*Updating Presence Information*".

5.2.5 Presence-enabled Address-book

See [PRS_RD-V1_1] "*Presence-enabled Address-book*".

5.2.6 Validity Period

See [PRS_RD-V1_1] "*Validity Period*".

5.2.7 One-time Event Subscription and Notification

See [PRS_RD-V1_1] "*One-time Event Subscription and Notification*".

5.2.8 Regulating Publications of Presence Information

5.2.8.1 Short Description

This use case presents a mechanism for a user to specify to another user how often and which part of his Presence Information should he publish.

5.2.8.2 Actors

- Driver Peter – A Presence Service end user who can be located by Boss in a time limited period (e.g. during work time).

- Driver Paul - A Presence Service end user who can be located by Boss in a time limited period (e.g. during work time).
- Boss – The Presence Service end user who can get Driver Peter's and Driver Paul's location information periodically in a time limited period (e.g. during work time).
- Presence Server – This is the server that is providing the Presence Service to Driver Peter, Driver Paul and Boss.
- Location Server – This is the server that is providing the location service to Driver Peter and Driver Paul.
- Specific Location Presence Network Agent – Updates Presence Server with Driver Peter's and Driver Paul's current location information coming from the location server.

5.2.8.3 Actor Specific Issues

Boss is able to get Driver Peter's and Driver Paul's current location information periodically in a time limited period (e.g. during work time).

5.2.8.4 Actor Specific Benefits

Boss will be able to get Driver Peter's and Driver Paul's location information periodically. This location information will be current, complete, and trustful due to the location server features. Driver Peter's and Driver Paul's location information will be private out of this period. Moreover, this kind of regulation will also bring less bandwidth and battery consumption due to monitoring resources and publications will only be done when specified.

5.2.8.5 Preconditions

Boss, Driver Peter and Driver Paul have a Subscription to a Presence Service. Driver Peter and Driver Paul have already setup their privacy settings to allow Boss to see their location information in a limited period.

5.2.8.6 Postconditions

Boss will get Driver Peter's and Driver Paul's current location information periodically during working time with the completeness of the location server. Driver Peter and Driver Paul will assure their privacy outside the temporary condition.

5.2.8.7 Normal Flow

1) Boss selects Driver Peter and Driver Paul from his presence client and submits a request for periodical Notification (e.g. every 15 minutes during work time period) of Driver Peter's and Driver Paul's current location information.
2) Presence Server checks if Boss is authorized to locate Driver Peter and Driver Paul.
3) Presence Server sends a "regulation publication" to the specific location Presence Network Agent with the appropriate parameters specified by Boss (i.e. location information every 15 minutes during work time period).
4) Specific Location Presence Network Agent publishes Driver Peter's and Driver Paul's current location information (coming from the location server) every 15 minutes during work time period.
5) The Presence Server will send back to Boss Driver Peter's and Driver Paul's current location information.
6) Boss gets Driver Peter's and Driver Paul's Presence Information including precise and complete Driver Peter's and Driver Paul's current location information.

5.2.8.8 Alternative Flow

1) Out of working time, Boss selects Driver Peter and Driver Paul from his presence client and submits a request for periodical Notification of Driver Peter's and Driver Paul's current location information.
2) Presence Server checks if Boss is authorized to locate Driver Peter and Driver Paul.
3) Presence Server sends back to Boss a refusal to his periodical Subscription.

5.2.8.9 Operation and Quality of Experience Requirements

Typical Presence Service usage where Notifications are sent when changes in the Presence Information occur is not always useful for some kind of Presence Information. Certain Presence Information such as a user's location is continuously changing and a different mechanism, based on periodical Notifications is needed.

5.2.9 Notification Filtering

5.2.9.1 Short Description

This use case shows how the Watcher can provide a filter based on his/her presence attributes. The Watcher is able to indicate when Notifications from the Presentity are blocked based on his/her Presence Information. This use case demonstrates how the Watcher can provide a filter avoiding unnecessary Notifications when the Watcher is busy or not willing to communicate. This helps reducing the Notification traffic.

5.2.9.2 Actors

- Alice – Provides Subscription Information according to her preferences, Watcher.
- Bob – Configures the Presence Service according to his preferences, Presentity.
- Presence Client (PC) – Resides in the mobile device of Alice and Bob.
- Presence Server – Resides in the network.

5.2.9.3 Actor Specific Issues

Alice wants to supply a filter for blocking the Notifications coming from Presentity Bob.

- She does not want to receive Presence Information Notifications from Bob when her presence status is BUSY.
- She does not want to receive Presence Information Notifications from Bob based on her certain presence attributes.

Presence Server does not notify unnecessary Presence Information to the Watcher when the Watcher is not able or not willing to receive it.

5.2.9.4 Actor Specific Benefits

Alice:

- is able to block unwanted presence Notification from the Presentity based on her presence.

Presence Server:

- is able to block unwanted Notifications. As a result, Notification traffic reduces.

5.2.9.5 Preconditions

- Alice and Bob are all provisioned to use the Presence Service.

5.2.9.6 Postconditions

- Alice is able to provide a filter based on her presence attributes to block unwanted Notifications.

- Presence Server is able to block unwanted Notifications, so this reduces Notification traffic.

5.2.9.7 Normal Flow

1) Alice subscribes for Bob's Presence Information, Alice also provides a Notification filter based on her Presence Information to block Notifications from Bob when she is BUSY.
2) The Presence Server maintains presence Subscriptions and Notification filters set by Alice.
3) Bob changes his status and publishes a presence attribute.
4) The Presence Server checks the Notification filter and finds that Alice presence status is AVAILABLE, so it sends a Notification to Alice about Bob's presence status change.
5) Alice now becomes busy, so she modifies her presence status to BUSY.
6) Bob changes his presence status and he publishes his Presence Information to the Presence Server.
7) The Presence Server checks the Notification filter and finds that Alice presence status is BUSY, so the Presence Server blocks the Notifications about Bob's presence status change.
8) Alice becomes available, so she changes her presence status back to AVAILABLE.
9) The Presence Server notifies Alice about the presence status changes from Bob.

5.2.9.8 Alternate Flow

None

5.2.9.9 Operational and Quality of Experience Requirements

None

5.3 Network Presence

5.3.1 Update the Presence Status when the Mobile is Out of Coverage

See [PRS_RD-V1_1] "*Update the Presence Status when the Mobile is Out of Coverage*".

5.4 Application-Specific Use Cases

5.4.1 Event Buddy

See [PRS_RD-V1_1] "*Event Buddy*".

5.5 Security and Privacy

Privacy protects user data against unwanted and unauthorized access. The presence privacy protects the data about the availability and Presence Information of a user against unwanted and unauthorized data access.

All Watchers that want to get data about the Presence Information status of another user need to be authorized for their access. This authorization is realized in three different modes:

- The user who owns the terminal (Presentity) is directly asked for permission if a Watcher tries to fetch or subscribe to his Presence Information (Reactive Authorization mode). To accomplish users comfort the reactive mode should enable the transition to proactive mode by decision reuse.
- A system that acts on behalf of the user decides for permission if a Watcher that is known tries to fetch or subscribe to his Presence Information (Proactive Authorization mode).

- Reactive Authorization and transition from reactive to proactive authorization mode could be substantially enhanced, if decision supporting features are available as basis for the Presentity's evaluation.

Effective support during the decision process for reactive authorization mode will be very beneficial for the Presentity. For the users comfort the number of decisions should be as small as possible. Define once and reusable for future access.

Since the proactive authorization is normally done without any Notification to the Presentity, he needs to be sure that his privacy is managed in a way that he is able to control and understand completely.

For authorization the Presentity is thinking in relation of trust. Therefore authorization lists (Family, Friend, Colleague…) that connect contacts with the same relation should be used. Since the trust relations normally do not drive the list generation of communication lists (e.g. used for Instant Messaging and Chat session) a reuse of such lists should normally be avoided.

Additionally it might be meaningful to support relations that are hosted outside the mobile domain (e.g. Companies Directory Service to decide for proactive authorization or support with public key infrastructure).

5.5.1 Presence Privacy

See [PRS_RD-V1_1] "*Presence Privacy*".

5.5.2 Using the Presence Service for Advertising Capabilities

See [PRS_RD-V1_1] "*Using the Presence Service for Advertising Capabilities*".

5.5.3 Reactive Authorization

See [PRS_RD-V1_1] "*Reactive Authorization*".

5.5.4 Proactive Authorization:

See [PRS_RD-V1_1] "*Proactive Authorization*".

5.5.5 Proactive Authorization – Common Group, Strictly Secure

See [PRS_RD-V1_1] "*Proactive Authorization – Common Group, Strictly Secure*".

5.5.6 Proactive Authorization – Common Group

See [PRS_RD-V1_1] "*Proactive Authorization – Common Group*".

5.5.7 Authorization Category

See [PRS_RD-V1_1] "*Authorization Category*".

6. Requirements (Normative)

6.1 High-Level Functional Requirements

6.1.1 General

Label	Description	Enabler Release
GEN-001	The Presence Service SHALL be specified in such a manner that no specific execution environment, operating system, or programming language is unfairly favoured for the implementation of a conforming Presence Service.	PRS V1.1
GEN-002	Required interfaces to the Presence Service SHALL NOT be specified in terms that unfairly favour any execution environment, operating system, or programming language.	PRS V1.1
GEN-003	The Presence Service SHALL be independent of the technology of the access network. For example, it would be inappropriate to specify a Presence Service that works only for GPRS networks. This requirement SHALL NOT preclude making information specific to an access network available to the Presence Service.	PRS V1.1
GEN-004	The Presence Service SHALL interact with external presence enabled services using industry-standard protocols and data formats to the extent enabled by those industry-standard protocols and data formats.	PRS V1.1
GEN-005	The Presence Service SHALL continue to be supported when the user roams to another network that supports the capability to provide Presence Information relating to the roamed user in terms of either the service, device, or the network.	PRS V1.1
GEN-006	The Presence Service SHALL comply with the privacy requirement described in [Privacy].	PRS V1.1
GEN-007	The Presence Service SHOULD allow efficient use of transport resources.	PRS V1.1 Enhanced in PRS V2.0
	The Presence Service (in some cases together with the corresponding OMA enablers) SHALL support at least the following commonly known Communication Means:	
GEN-008	1) OMA PoC;	Deleted Transferred to PDE V1.0[1]
GEN-009	2) IM (at a minimum OMA IMPS and OMA SIMPLE IM);	Deleted Transferred to PDE V1.0[1]
GEN-010	3) SMS;	Deleted Transferred to PDE V1.0[1]
GEN-011	4) MMS;	Deleted Transferred to PDE V1.0[1]
GEN-012	5) E-mail;	Deleted Transferred to PDE V1.0[1]

[1] The PDE enabler development is independent and this requirement may change or be deleted within the PDE RD.

GEN-013	6) OMA GS (Gaming Service);	Deleted Transferred to PDE V1.0[1]
GEN-014	7) Circuit-Switched audio call;	Deleted Transferred to PDE V1.0[1]
GEN-015	8) Circuit-Switched video call;	Deleted Transferred to PDE V1.0[1]
GEN-016	9) SIP based Voice over IP (VoIP).	Deleted Transferred to PDE V1.0[1]

Table 1: General Requirements

6.1.2 User Experience

Label	Description	Enabler Release
UEXP-001	It SHALL be possible for Presentities to utilize the Presence Service in order to communicate to others certain information and preferences (Presence Information), such as their willingness and availability to communicate using particular Communication Means.	PRS V1.1
UEXP-002	Presentities MAY communicate this information to the Presence Service by creating and activating Presence Profiles such as “Working”, “Meeting”, “Out to lunch”, “Discreet”, “Busy”, “Do Not Disturb”, etc.	Future release
UEXP-003	Presentities SHALL be able to synchronize Presence Profiles with the Presence Service.	Future release
UEXP-004	The Presence Service SHALL NOT limit such profiles to pre-specified content.	Future release
UEXP-005	The Presence Service SHALL allow for such profiles to be suitably customized to meet the needs of a variety of applications and end-users.	Future release
UEXP-006	While the number and content of those profiles will vary, the Presence Information Elements that will be communicated as a result SHALL be defined such that their semantics are very precise in order to ensure that they are consistently interpreted across applications (see section 6.1.4).	Future release

Table 2: User Experience Requirements

6.1.3 Features

Label	Description	Enabler Release
	The Presence Service SHALL be configurable as detailed below.	
FEAT-001	1) Presence Service SHALL support Presence Information for multiple, concurrent presence enabled services for each presence user.	PRS V1.1
FEAT-002	2) Presence Service SHALL support concurrent, multiple terminal devices for each presence user.	PRS V1.1

Table 3: Features Requirements

6.1.3.1 Publish

Label	Description	Enabler Release
FEAT-PUB-001	The Presence Service and Presence Sources SHALL support the publication of Presence Information.	PRS V1.1
FEAT-PUB-002	The Presence Service SHOULD support the publication of Presence Information on behalf of other Presentities (see section 6.1.3.5).	PRS V2.0
FEAT-PUB-003	The Presence Service SHALL support the aggregation and storage of multiple Presence Information Elements for each Presentity.	PRS V1.1
FEAT-PUB-004	The Presence Service SHALL support the publication of one or more Presence Information Elements at a time.	PRS V1.1
	The Presence Service MAY support the retrieval of Presence Information from Presence Source(s) per the request from the PS in the following manner:	
FEAT-PUB-005	1) Retrieval of Presence Information from the Presence Source(s) which has already established publication.	PRS V2.0
FEAT-PUB-006	2) Retrieval of Presence Information from the Presence Source(s) which has not established publication.	Future release
FEAT-PUB-007	3) Retrieval of Presence Information from the Presence Source(s) on a periodic basis.	Future release
FEAT-PUB-008	The Presence Service MAY support a mechanism to dynamically regulate the rate of publications on a per Presentity basis.	Future release
FEAT-PUB-009	The Presence Service SHALL support the reception of Presence Information from authorized Presence Sources (network entities, users, etc.).	PRS V1.1
FEAT-PUB-010	More than one Presence Source MAY publish the same Presence Information Elements on behalf of a Presentity (see section 6.1.3.5).	PRS V1.1
	The Presence Service SHALL support a mechanism to define and enforce publication authorization rules. These rules SHALL be able to specify at least:	
FEAT-PUB-011	1) Which Presentities each Presence Source is allowed to publish for.	Future release
FEAT-PUB-012	2) For each authorized Presence Source and Presentity combination (as per the previous bullet item), which Presence Information the Presence Source is allowed to publish.	Future release
FEAT-PUB-013	The Presence Service and Presence Sources MAY support the publication of Permanent Presence Information.	PRS V2.0
	The Presence Service SHALL support optimization of traffic between Presence Source and Presence Server based upon criteria that is:	
FEAT-PUB-014	a) Activation/deactivation of publications per Presentity.	PRS V2.0
FEAT-PUB-015	b) Activation/deactivation of publications per subset of Presence Information on a Presentity basis.	PRS V2.0
	Optimization criteria for reducing presence publications traffic MAY include:	

FEAT-PUB-016	a) Existence of Watchers.	PRS V2.0
FEAT-PUB-017	b) Watcher-specified preferences.	PRS V2.0

Table 4: Features Requirements – Publish Items

6.1.3.2 Subscribe

Label	Description	Enabler Release
FEAT-SUB-001	Watchers SHALL be able to request the Presence Information of presentities (including lists that represent multiple presentities).	PRS V1.1
FEAT-SUB-002	Watchers SHALL be able to request that Notifications are sent on a subscription basis when there is new or modified Presence Information.	PRS V1.1
FEAT-SUB-003	Watchers SHALL be able to request the Presence Information of Presentities (including lists that represent multiple Presentities) on Subscription basis, where Notifications are sent periodically, i.e., at regular intervals.	Future release
	Watchers SHOULD be able to specify one or more conditions upon which presence Notifications are generated and sent to them. These conditions SHOULD include at least:	
FEAT-SUB-004	1) specific changes in presence status of a Presentity or list of Presentities.	PRS V1.1
FEAT-SUB-005	2) time constraint conditions, such as buffering or throttling mechanisms.	PRS V2.0
FEAT-SUB-006	3) a condition whether the current state of Presence Information should be delivered upon successful initial Subscription, Subscription refresh or Subscription termination.	PRS V2.0
FEAT-SUB-007	4) a condition on which the Presence Information from a list of Presentities should be delivered.	Future release
FEAT-SUB-008	5) a condition whether notifications should be suppressed depending on particular Watcher presence state values (if known to the Presence Server).	PRS V2.0
FEAT-SUB-009	Watchers SHALL be able to specify that a particular Subscription generates full or partial (i.e. incremental) Notifications.	PRS V1.1
FEAT-SUB-010	Presence Subscriptions SHALL have an expiration time (a.k.a. duration). When the duration of a Subscription elapses, the Subscription is terminated.	PRS V1.1
FEAT-SUB-011	The Presence Service SHALL notify a Subscribed-watcher when their Subscription expires, unless the Subscribed-watcher requested not to receive such Notifications.	PRS V1.1
FEAT-SUB-012	The Presence Service SHALL provide the means for a Subscribed-watcher to renew a Subscription before it expires.	PRS V1.1
FEAT-SUB-013	The Presence Service SHALL provide a mechanism for the Subscribed-watcher to request a particular Subscription duration, which MAY be overridden by the Presentity's preferences or configuration parameters of the Presence Service provider. The Presence Service SHOULD define a recommended Subscription expiration time for the Subscribed-watchers.	PRS V1.1

FEAT-SUB-014	The Presence Service SHALL provide a mechanism to cancel a Subscribed-watcher's Subscription.	PRS V1.1
FEAT-SUB-015	The Presence Service SHALL provide a mechanism that can be used to notify a Subscribed-watcher of the cancellation of their Subscription, subject to the preferences of the Presentity (see next requirement).	PRS V1.1
FEAT-SUB-016	The Presence Service SHALL provide a mechanism to allow a Presentity to suppress a notification to a Watcher regarding a cancelled Subscription.	PRS V1.1
FEAT-SUB-017	A Presentity SHALL have the ability to decide whether to accept or deny incoming presence Subscription requests as those arrive. This is named reactive authorization.	PRS V1.1
FEAT-SUB-018	A Presentity SHALL have the ability to define rules that will determine if future incoming Subscription requests are accepted or denied. This is named proactive authorization.	PRS V1.1
FEAT-SUB-019	A Presentity SHALL have the ability to decide during the reactive authorization procedure to enable the Watcher for proactive authorization for future requests.	PRS V1.1
FEAT-SUB-020	A Presentity SHALL determine which potential Watchers or groups of Watchers (e.g. friends, family) shall be proactively authorized to receive his/her Presence Information.	PRS V1.1
FEAT-SUB-021	A Presentity SHALL determine which potential Watchers or groups of Watchers (e.g. work mates) shall be reactively authorized in order to receive his/her Presence Information.	PRS V1.1
FEAT-SUB-022	A Presentity MAY be provided with information related to the Watchers that request his/her Presence Information (e.g. name, MSISDN, etc).	PRS V1.1
FEAT-SUB-023	A Subscribed-watcher SHALL be notified as to whether the requested Subscription was accepted or denied.	PRS V1.1
FEAT-SUB-024	A Presentity MAY deny an incoming Subscription, while indicating it accepted it (polite blocking).	PRS V1.1
FEAT-SUB-025	The Presence Service SHALL provide the means to enable a Presentity to be notified about any unauthorized Watcher requests (whether ad-hoc, Subscription-based, or otherwise) for the Presentity's Presence Information.	PRS V1.1
FEAT-SUB-026	The Presence Service SHALL provide the means to enable a Presentity to be notified about any Subscriptions for the Presentity's Presence Information that have just expired.	PRS V1.1
FEAT-SUB-027	A Presentity SHALL be able to authorize a Watcher to retrieve its Presence Information, via one or more of the mechanisms described here, on behalf of another Watcher.	Future release
FEAT-SUB-028	It SHALL be possible for a Watcher to request that they receive a particular subset of a Presentity's Presence Information, subject to the Presentity's preferences.	PRS V1.1
FEAT-SUB-029	It SHALL be possible for a Watcher or a Presentity to perform Subscription-related operations in bulk, i.e. where the target is more than one Presentity or Watcher respectively.	PRS V1.1

FEAT-SUB-030	It SHALL be possible for a subscribing Watcher to specify a maximum desired Notification frequency.	Deleted Covered by FEAT-SUB-005
FEAT-SUB-031	The Presence Service SHALL support One-time Event Subscription and Notification.	PRS V1.1
FEAT-SUB-032	Watchers MAY be able to make One-time Event Subscription to Presence Service.	PRS V1.1
FEAT-SUB-033	Watchers MAY be able to request the Presence Server to pull Presence Information from Presence Source (i.e. force a refresh).	Future release
FEAT-SUB-034	Watchers MAY be able to request Notifications to be selectively delivered upon the state of their presence status.	PRS V2.0
FEAT-SUB-035	The Presence Service SHALL allow the Presentity to retrieve his/her own full set of Presence Information.	PRS V1.1
FEAT-SUB-036	The Presence Service SHALL provide mechanisms to limit the number of Subscriptions requested by a Watcher.	PRS V2.0
FEAT-SUB-037	The Presence Service SHALL provide mechanisms to limit the number of simultaneous Subscriptions per Presentity.	PRS V2.0
FEAT-SUB-038	The Presence Service MAY support the ability for the Presentity to reactively authorize Presence Information requested by a Watcher based on the subscription request.	Future release

Table 5: Features Requirements – Subscribe Items

6.1.3.3 Notify

Label	Description	Enabler Release
FEAT-NOT-001	The Presence Service SHALL be able to generate asynchronous Notifications in response to subscribed-to events.	PRS V1.1
FEAT-NOT-002	The Presence Service SHALL support a mechanism such that the order of transmitted Notifications can be maintained.	PRS V1.1
FEAT-NOT-003	The Presence Service MAY cancel a Subscription, if the Notifications pertaining to that Subscription are undeliverable.	PRS V1.1
FEAT-NOT-004	It MAY be possible for the Presence Service to buffer or otherwise store Notifications, so that the Subscribed-watcher, in lieu of asynchronous Notifications, can retrieve them.	Future release
FEAT-NOT-005	It MAY be possible to retrieve buffered Notifications pertaining to more than one Presentity in bulk.	Future release
FEAT-NOT-006	The Presence Service MAY buffer received Notifications from a list of Presentities and deliver those when some specified conditions are met.	Future release
FEAT-NOT-007	The Presence Service SHOULD ensure that buffered received Notifications from a list of Presentities are delivered within an acceptable timeframe.	Future release

Table 6: Features Requirements – Notify Items

6.1.3.4 Preferences

Label	Description	Enabler Release
FEAT-PREF-001	Presentities SHALL be able to control how their Presence Information is disseminated.	PRS V1.1
FEAT-PREF-002	Presentities SHALL be able to define policies such that the Presence Service disseminates different information to individual Watchers or groups of Watchers.	PRS V1.1
FEAT-PREF-003	The defined policies SHALL cover the possibility of anonymous or unauthenticated Watchers.	PRS V1.1
FEAT-PREF-004	It SHALL be possible to define default policies that apply to Watchers that do not fall in any of the specified groups.	PRS V1.1
	It SHALL be possible to apply a policy to:	PRS V1.1
FEAT-PREF-005	1) A particular Watcher.	PRS V1.1
FEAT-PREF-006	2) A particular request.	Future release
FEAT-PREF-007	3) A particular request type.	Future release
FEAT-PREF-006	For each said Watcher or group of Watchers, presentities SHALL be able to define policies such that the Presence Service will reveal all their Presence Information, a subset of their Presence Information, or any other information (whether that is true or not), fully or partially based on their Presence Information.	PRS V1.1
FEAT-PREF-007	The Presence Service SHALL provide mechanisms which may be used to limit the number of times a Watcher can retrieve the Presence Information of a Presentity.	Future release
FEAT-PREF-008	Presentities SHALL be able to define default policies on a per-Presentity, per-Watcher, or per Watcher group basis.	PRS V1.1
FEAT-PREF-009	It SHALL be possible for a service provider to override the policies defined by a Presentity.	Deleted

Table 7: Features Requirements – Preferences Items

6.1.3.5 Delegation

Label	Description	Enabler Release
FEAT-DEL-001	The Presence Service SHALL allow a Presentity to selectively authorize others to perform publication on behalf of the Presentity.	PRS V2.0
FEAT-DEL-002	The Presence Service SHALL allow a Delegating Watcher to selectively authorize other Watchers to perform a Delegated Subscription.	Future release
FEAT-DEL-003	A Watcher MAY perform a Delegated Subscription.	Future release
	Delegating Watchers SHALL be able to control the Delegated Subscription in a persistent manner that is:	Future release
FEAT-DEL-004	1) Authorizing the initial subscription requests.	Future release

FEAT-DEL-005	2) Authorizing the re-subscription requests.	Future release
FEAT-DEL-006	3) Applying any updated authorization by the Delegating Watcher on the existing subscriptions.	Future release
FEAT-DEL-007	A Presentity SHALL have the ability to separately identify and control the Delegated Subscription from other Subscriptions.	Future release
FEAT-DEL-008	The Presence Service SHALL ensure that a Delegated Subscription does not inadvertently reveal the Presentity's Presence Information to those Watchers explicitly listed in the Presentity's block list.	Future release
FEAT-DEL-009	The Presence Service SHALL support the Delegated Subscription in an inter-domain scenario where any combination of Presentity, Delegating Watcher and Watcher may reside in different domains.	Future release
FEAT-DEL-010	The Presence Service SHALL ensure that a Delegated Subscription is suitably rejected if it is not understood by the Presence Service itself.	Future release
FEAT-DEL-011	The Presence Service SHOULD allow the selective authorization of Presentities to configure preferences on behalf of other Presentities.	Future release
FEAT-DEL-012	The Presence Service SHOULD allow the selective delegation of features to the Presence Service, such that those features can be applied by the service when the Presentities or Watchers are out of contact.	Future release

Table 8: Features Requirements – Delegation Items

6.1.4 Presence Information

6.1.4.1 Presence Information Content

Label	Description	Enabler Release
PINFO-CONT-001	Presence information relating to a particular Presentity SHALL be segmented in zero or more presence elements.	Deleted Transferred to PDE V1.0[1]
PINFO-CONT-002	The Presence Service SHALL provide a common mechanism that can be used to associate priorities with particular Presence Information Elements. The semantics of this prioritization will depend on the elements being prioritized. The definitions of those Presence Information Elements will include the semantics of the prioritization.	Deleted Transferred to PDE V1.0[1]
PINFO-CONT-003	Presence Service SHALL provide a means where presence elements may be associated with a time at which the presence element should no longer be considered valid	Deleted Transferred to PDE V1.0[1]
PINFO-CONT-004	Presence Service SHALL include a mechanism whereby a Watcher may be informed as to the time the current state of an element pertaining to a particular Presentity is expected to be valid.	Deleted Transferred to PDE V1.0[1]
PINFO-CONT-005	Presence Service SHALL include a mechanism whereby a Watcher may be informed of free text that augments the current state of an associated element pertaining to a particular Presentity.	Deleted Transferred to PDE V1.0[1]

Table 9: Presence Information Requirements – Content Items

6.1.4.2 Presence Information Format

Label	Description	Enabler Release
PINFO-FOR-001	The Presence Service SHALL support a format that is able to represent a rich set of Presence Information.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-002	Presence Information SHALL be represented using a standard format, for the purpose of exchanging Presence Information.	Deleted Transferred to PDE V1.0[1]
	A standard format and information semantics (including values where applicable) SHALL be defined for the following common information:	
PINFO-FOR-003	1) Default Willingness (e.g. willing, not willing, etc.)	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-004	2) Application-specific Willingness (e.g. willing for PoC, not willing for IM etc);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-005	3) Overriding Willingness (e.g. willing, not willing);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-006	4) Application-specific Availability (e.g. registered with the PoC service);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-007	5) Application-specific media capabilities (e.g. video support in PoC service);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-008	6) Network Availability (e.g. the phone is attached or registered to the defined network such as 3GPP IMS or 3GPP2 MMD, out-of-coverage, etc.);	Deleted Transferred to PDE V1.0[1]
	7) Roaming Information	
PINFO-FOR-009	i. Is roaming (e.g. home or visited network)	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-010	ii. Visited network information	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-011	8) Maximum local access network bandwidth (uplink and downlink where applicable);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-012	9) Estimated local access network bandwidth (uplink and downlink where applicable);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-013	10) Communication Address (e.g. email address, phone number, etc.);	Deleted Transferred to PDE V1.0[1]
	11) Presentity supplied activity and location	
PINFO-FOR-014	i. Activity (e.g. in a meeting, at the movies, on the phone etc.);	Deleted Transferred to PDE V1.0[1]

PINFO-FOR-015	ii. Textual location (e.g. at home, at work, at the supermarket, etc.);	Deleted Transferred to PDE V1.0[1]
	12) Location (e.g. device-derived location, network-derived location, etc.);	
PINFO-FOR-016	i. OMA recommended format for location information (e.g. MLP or GML).	Deleted Transferred to PDE V1.0[1]
	13) Client device capabilities	
PINFO-FOR-017	i. Application capabilities(e.g. voice, text, H.263 or H.264 video, multimedia, etc.);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-018	ii. Bearer capabilities (e.g. UMTS, GPRS etc);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-019	iii. Via appropriate device identifiers (e.g. IMEI, MEID etc.)	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-020	14) Time-zone (e.g. GMT etc);	Deleted Transferred to PDE V1.0[1]
	15) Personal information	
PINFO-FOR-021	i. Mood (e.g. textual: happy, angry, sad, etc. or picture: smiley face, frowning face, etc.)	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-022	ii. Preferred language (e.g. English, Spanish etc);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-023	iii. Icon (e.g. a status icon of the Presentity's choice)	Deleted Transferred to PDE V1.0[1]
	16) Network Presence	
PINFO-FOR-024	i. Network Status (eg Network up / Network down);	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-025	ii. Maximum Bandwidth Available;	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-026	iii. Device Ids attached to network	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-027	iv. Service ID/Type being delivered by network	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-028	v. Network ID	Deleted Transferred to PDE V1.0[1]

PINFO-FOR-029	The Presence Information format SHALL comply with standard IETF formats, where relevant.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-030	The Presence Information format SHALL be registered with IANA as a MIME-type.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-031	The Presence Information format SHOULD use a standard mark-up language.	Deleted Transferred to PDE V1.0[1]1.0
PINFO-FOR-032	In order to transfer Presence Information over a wireless link (e.g. low bandwidth, high latency, and high error rate link) it may be necessary to define an additional format. In this case, appropriate mappings to the standard format SHALL be defined.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-033	The Presence Information format SHALL be able to represent the Presence Information as a set of zero or more presence elements.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-034	The Presence Information format SHALL provide the means to uniquely identify a presence element.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-035	The Presence Information format SHALL provide the means to associate a presence element with an expiration date.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-036	It SHOULD be possible to extend the presence format, without affecting previously defined aspects.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-037	The Presence Information format SHALL support multiple character sets.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-038	The Presence Information format SHALL include a way to identify the Presentity to which it pertains.	Deleted Transferred to PDE V1.0[1]
PINFO-FOR-039	The Presence Information format SHOULD include a way to include Presence Information indirectly (e.g. by providing a link to a different location)	Deleted Transferred to PDE V1.0[1]

Table 10: Presence Information Requirements – Format Items

6.1.4.3 Enabler-specific issues

Label	Description	Enabler Release
PINFO-ENSPEC-001	The Presence Service SHALL specify the presence elements in such a way that they can be used consistently and without ambiguity across multiple enablers.	Deleted Transferred to PDE V1.0[1]
PINFO-ENSPEC-002	Enablers that use the Presence Service SHOULD re-use the presence elements defined above where appropriate, instead of redefining them in an Application-specific manner.	Deleted Transferred to PDE V1.0[1]
PINFO-ENSPEC-003	The Presence Service SHALL allow other enablers to define new presence elements that are Application specific.	Deleted Transferred to PDE V1.0[1]

PINFO-ENSPEC-004	Enablers that use the Presence Service and need to define new presence elements SHOULD define a standard format and information semantics (including values where applicable) for those presence elements.	Deleted Transferred to PDE V1.0[1]

Table 11: Presence Information Requirements – Enabler Specific Items

6.1.5 XML Document Management for the Presence Service

This section describes additional functional requirements that are specific to document types needed to support the SIMPLE Presence enabler.

6.1.5.1 Shared Lists

Label	Description	Enabler Release
XDM-SHRD-001	The Presence Service SHALL allow Presentities and Watchers to utilize shared lists, e.g. contact lists as defined in [XDM_RD].	PRS V1.1

Table 12: XML Document Management for the Presence Service Requirements – Shared Lists Items

6.1.5.2 Presence Authorization Policies

Label	Description	Enabler Release
	The document related to presence authorization policies SHALL define:	
XDM-AUP-001	1) A document that defines how incoming Subscription requests are handled. This document SHALL be able to utilize Accept, Reject, Polite Block and Deferred lists. Depending on how the Subscription policy document combines those lists, the Presence Server will determine whether to accept, reject, politely block, or defer the handling of an incoming Subscription request.	PRS V1.1
XDM-AUP-002	2) What Presence Information will be disseminated to the Watchers of a particular Presentity.	PRS V1.1
XDM-AUP-003	3) What conditions will trigger a presence Notification to the Watchers of a particular Presentity.	Future release

Table 13: XML Document Management for the Presence Service Requirements – Presence Authorization Policies Items

6.1.5.3 Presence Lists

A Presence List is a mechanism to enable Watchers to request Presence Information for a list of Presentities that is stored via XML Document Management

Label	Description	Enabler Release
XDM-PL-001	The Presence Service SHALL support Presence Lists which reference URI lists stored using XML Document Management.	PRS V1.1
XDM-PL-002	Presence Lists SHALL support a presence attribute request list for every list member.	Future release
XDM-PL-003	Presence Lists SHALL support a presence attribute request list common for some list members.	Future release

Table 14: XML Document Management for the Presence Service Requirements – Presence Lists Items

6.1.6 Network Interfaces

Label	Description	Enabler Release
NETIF-001	The Presence Service SHALL support a SIP-based network interface [RFC3261].	PRS V1.1
NETIF-002	The supported network interfaces SHALL make it possible for a logical entity, such as Presentity or Watcher, to simultaneously access the Presence Service from multiple physical locations.	PRS V1.1
NETIF-003	The supported network interfaces SHALL be suitable for a variety of other enablers or applications to access the Presence Service.	PRS V1.1
NETIF-004	The supported network interfaces SHALL be suitable for any Presence Source (e.g. Presence Network Agent) to access the Presence Service.	PRS V1.1
NETIF-005	The supported network interfaces SHALL be designed to support extensions, while maintaining backwards compatibility.	PRS V1.1

Table 15: Network Interfaces Requirements

6.1.7 Security

Label	Description	Enabler Release
SEC-001	Presence Service SHALL include mechanisms to securely authenticate entities that require access to the Presence Service.	PRS V1.1
SEC-002	Presentities and Watchers SHALL support mechanisms to securely authenticate themselves to the Presence Service.	PRS V1.1
SEC-003	The supported network interfaces SHALL include mechanisms to support non-authenticated Watchers that require access to the Presence Service.	PRS V1.1
SEC-004	The supported network interfaces SHALL include suitable mechanisms to prevent denial-of-service attacks.	PRS V1.1
SEC-005	The supported network interfaces SHALL include suitable mechanisms to prevent replay attacks.	PRS V1.1
SEC-006	The supported network interfaces SHALL include suitable mechanisms to maintain the privacy of exchanged information.	PRS V1.1
SEC-007	The supported network interfaces SHALL include suitable mechanisms to prevent third parties from interfering with the provided services.	PRS V1.1
SEC-008	The supported network interfaces SHALL include suitable mechanisms to verify the authenticity of the source of the published Presence Information.	PRS V1.1
SEC-009	The supported network interfaces SHALL include suitable mechanisms to verify the integrity of exchanged messages.	PRS V1.1

Table 16: Security Requirements

6.1.8 Presence Sources and Watchers

Label	Description	Enabler Release

SRC&WAT-001	The Presence Source and Watchers SHALL support authentication with the Presence Service.	Deleted Covered by SEC-001
SRC&WAT-002	The Presence Source and Watchers SHOULD support default presence settings (e.g. default profile, default groups) that are automatically selected when a device is powered up for the first time.	Future release

Table 17: Presence Sources and Watchers Requirements

6.1.9 Collecting Accounting Information

Label	Description	Enabler Release
ACC-001	The Presence Service SHALL collect accounting information for all presence transactions.	PRS V2.0
	The Presence Service SHALL support the following:	
ACC-002	1) Both online and offline charging.	PRS V2.0
ACC-003	2) Pre-paid and post-paid charging.	PRS V2.0
ACC-004	3) Different tariff rules depending on service providers' policies.	PRS V2.0
ACC-005	4) Flat fee: per time period independent of usage.	PRS V2.0
ACC-006	5) Correlation between Presence Service charging data and transport or bearer level charging data (e.g. charging at GPRS).	PRS V2.0
ACC-007	6) Correlation between Presence Service charging data and session level charging data (e.g. charging at IMS).	PRS V2.0
ACC-008	7) Correlation between Presence Service charging data and other presence enabled service's charging data (e.g. charging of PoC).	PRS V2.0

Table 18: Collecting accounting information Requirements

6.1.9.1 Charging of Presentity

Label	Description	Enabler Release
	The charging of Presentity can be made on at least the following events:	
ACC-PRES-001	1) Presence Information Publication.	PRS V2.0
ACC-PRES-002	2) Presence Information Notification.	PRS V2.0
	The tariff rule can be based on at least the following criteria:	
ACC-PRES-003	1) The size of the Presence Information notified to Watchers.	PRS V2.0
ACC-PRES-004	2) The number of Watchers subscribed.	PRS V2.0
ACC-PRES-005	3) The content of the Presence Information notified to Watchers.	PRS V2.0
ACC-PRES-006	4) The content of the Presence Information published.	PRS V2.0
ACC-PRES-007	5) The size of the Presence Information published.	PRS V2.0

Table 19: Collecting accounting information Requirements – Charging of Presentity Items

6.1.9.2 Charging of Watcher

Label	Description	Enabler Release
	The charging of Watcher can be made on at least the following events.	
ACC-WAT-001	1) Presence Information Subscriptions.	PRS V2.0
ACC-WAT-002	2) Presence Information Notifications.	PRS V2.0
ACC-WAT-003	3) Searching for Presentities.	Deleted
	The tariff rule can be based on at least the following criteria. NOTE: The mechanisms for supporting charging are outside the scope of this enabler, however, if the Charging Enabler is to be used with this release, the enabler release may specify presence specific charging parameters.	
ACC-WAT-004	1) The size of the Presence Information retrieved from the Presence Server.	PRS V2.0
ACC-WAT-005	2) The number of Presentities subscribed to.	PRS V2.0
ACC-WAT-006	3) The duration of the Presence Information Subscription.	PRS V2.0
ACC-WAT-007	4) The content of the Presence Information requested to the Presence Server.	PRS V2.0

Table 20: Collecting accounting information Requirements – Charging of Watcher Items

6.1.10 Operational & Quality of Experience

Label	Description	Enabler Release
OP&QOE-001	Presence Service Notifications SHALL be sent out as close as possible to the generating event, subject to throttling requirements.	PRS V1.1

Table 21: Operational & Quality of Experience Requirements

6.1.11 Interoperability

Label	Description	Enabler Release
IOP-001	Presence users SHALL be able to seamlessly utilize Presence features involving other Presence users regardless of their Presence Service provider. For example, a list of Presentities to subscribe to may include a Presentity that is subscribed to another service provider.	PRS V1.1
IOP-002	The PRS V2.0 Service SHALL support PRS V1.1 Service functionality.	PRS V2.0
IOP-003	While connected to the PRS V1.1 Service, PRS V2.0 Clients SHALL support the PRS V1.1 functionality.	PRS V2.0

Table 22: Interoperability between Presence Service Providers & Service Entities Requirements

Appendix A. Change History (Informative)

A.1 Approved Version 2.0 History

Reference	Date	Description
OMA-RD-Presence_SIMPLE-V2_0-20120710-A	10 Jul 2012	Status changed to Approved by TP: OMA-TP-2012-0268-INP_Presence_SIMPLE_V2_0_ERP_for_Final_Approval