



Presence SIMPLE Data Specification

Approved Version 1.0.1 – 25 Feb 2010

Open Mobile Alliance
OMA-DDS-Presence_SIMPLE-V1_0_1-20100225-A

Use of this document is subject to all of the terms and conditions of the Use Agreement located at <http://www.openmobilealliance.org/UseAgreement.html>.

Unless this document is clearly designated as an approved specification, this document is a work in process, is not an approved Open Mobile Alliance™ specification, and is subject to revision or removal without notice.

You may use this document or any part of the document for internal or educational purposes only, provided you do not modify, edit or take out of context the information in this document in any manner. Information contained in this document may be used, at your sole risk, for any purposes. You may not use this document in any other manner without the prior written permission of the Open Mobile Alliance. The Open Mobile Alliance authorizes you to copy this document, provided that you retain all copyright and other proprietary notices contained in the original materials on any copies of the materials and that you comply strictly with these terms. This copyright permission does not constitute an endorsement of the products or services. The Open Mobile Alliance assumes no responsibility for errors or omissions in this document.

Each Open Mobile Alliance member has agreed to use reasonable endeavors to inform the Open Mobile Alliance in a timely manner of Essential IPR as it becomes aware that the Essential IPR is related to the prepared or published specification. However, the members do not have an obligation to conduct IPR searches. The declared Essential IPR is publicly available to members and non-members of the Open Mobile Alliance and may be found on the “OMA IPR Declarations” list at <http://www.openmobilealliance.org/ipr.html>. The Open Mobile Alliance has not conducted an independent IPR review of this document and the information contained herein, and makes no representations or warranties regarding third party IPR, including without limitation patents, copyrights or trade secret rights. This document may contain inventions for which you must obtain licenses from third parties before making, using or selling the inventions. Defined terms above are set forth in the schedule to the Open Mobile Alliance Application Form.

NO REPRESENTATIONS OR WARRANTIES (WHETHER EXPRESS OR IMPLIED) ARE MADE BY THE OPEN MOBILE ALLIANCE OR ANY OPEN MOBILE ALLIANCE MEMBER OR ITS AFFILIATES REGARDING ANY OF THE IPR'S REPRESENTED ON THE “OMA IPR DECLARATIONS” LIST, INCLUDING, BUT NOT LIMITED TO THE ACCURACY, COMPLETENESS, VALIDITY OR RELEVANCE OF THE INFORMATION OR WHETHER OR NOT SUCH RIGHTS ARE ESSENTIAL OR NON-ESSENTIAL.

THE OPEN MOBILE ALLIANCE IS NOT LIABLE FOR AND HEREBY DISCLAIMS ANY DIRECT, INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OF DOCUMENTS AND THE INFORMATION CONTAINED IN THE DOCUMENTS.

© 2010 Open Mobile Alliance Ltd. All Rights Reserved.

Used with the permission of the Open Mobile Alliance Ltd. under the terms set forth above.

Contents

1. SCOPE	5
2. REFERENCES	6
2.1 NORMATIVE REFERENCES	6
2.2 INFORMATIVE REFERENCES	6
3. TERMINOLOGY AND CONVENTIONS	7
3.1 CONVENTIONS	7
3.2 DEFINITIONS	7
3.3 ABBREVIATIONS	7
4. INTRODUCTION	9
5. JUSTIFICATION	10
6. GENERAL	11
6.1 PRESENCE DATA MODEL	11
6.1.1 Person	11
6.1.2 Service	12
6.1.3 Device	12
6.2 DEFAULT WATCHER PROCESSING	12
7. PRESENCE INFORMATION ELEMENT DEFINITIONS	14
7.1 APPLICATION-SPECIFIC WILLINGNESS	14
7.1.1 Presence Information Element Semantics	14
7.1.2 PIDF Extension Elements	14
7.1.3 XML Schema	15
7.2 OVERRIDING WILLINGNESS	15
7.2.1 Presence Information Element Semantics	15
7.2.2 PIDF Extension Elements	15
7.2.3 XML Schema	16
7.3 APPLICATION-SPECIFIC AVAILABILITY	16
7.3.1 Presence Information Element Semantics	16
7.3.2 PIDF Extension Elements	16
7.3.3 XML Schema	17
7.4 NETWORK AVAILABILITY	17
7.4.1 Presence Information Element Semantics	17
7.4.2 PIDF Extension Elements	18
7.4.3 XML Schema	18
7.5 COMMUNICATION ADDRESS	18
7.5.1 Presence Information Element Semantics	18
7.6 ACTIVITY	19
7.6.1 Presence Information Element Semantics	19
7.7 LOCATION TYPE	19
7.7.1 Presence Information Element Semantics	19
7.8 GEOGRAPHICAL LOCATION	20
7.8.1 Presence Information Element Semantics	20
7.9 TIME ZONE	20
7.9.1 Presence Information Element Semantics	20
7.10 MOOD	21
7.10.1 Presence Information Element Semantics	21
7.11 ICON	21
7.11.1 Presence Information Element Semantics	21
7.12 SESSION PARTICIPATION	22
7.12.1 Presence Information Element Semantics	22
7.12.2 PIDF Extension Elements	22

7.12.3	XML Schema.....	22
7.13	TIMESTAMP.....	23
7.13.1	Presence Information Element Semantics.....	23
7.14	CLASS.....	23
7.14.1	Presence Information Element Semantics.....	23
7.15	NOTE.....	24
7.15.1	Presence Information Element Semantics.....	24
7.16	PER-SERVICE DEVICE IDENTIFIER.....	24
7.16.1	Presence Information Element Semantics.....	24
7.17	RELATIVE SERVICE PREFERENCE.....	25
7.17.1	Presence Information Element Semantics.....	25
8.	REGISTRY FOR PRESENCE INFORMATION ELEMENT VALUES.....	26
8.1	NETWORK AVAILABILITY.....	26
8.1.1	Network IMS.....	26
8.1.2	IP-CAN used to access IMS.....	26
9.	OPERATIONAL CONSIDERATIONS.....	27
APPENDIX A.	CHANGE HISTORY (INFORMATIVE).....	28
A.1	APPROVED VERSION HISTORY.....	28
APPENDIX B.	PRESENCE DOCUMENT OVERVIEW (INFORMATIVE).....	29
APPENDIX C.	PRESENCE DOCUMENT EXAMPLES (INFORMATIVE).....	33
APPENDIX D.	TEMPLATE FOR INPUT CONTRIBUTIONS DEFINING PRESENCE INFORMATION ELEMENT (INFORMATIVE).....	37
D.1	PRESENCE INFORMATION ELEMENT SEMANTICS.....	37
D.1.1	Presence Information Element A.....	37
D.2	PIDF EXTENSION ELEMENTS.....	37
D.2.1	<example>.....	37
D.3	PIDF EXTENSION ATTRIBUTES.....	37
D.3.1	“example”.....	37
D.4	XML SCHEMA.....	37
APPENDIX E.	TEMPLATE FOR INPUT CONTRIBUTIONS DEFINING VALUES FOR THE <NETWORK-AVAILABILITY> ELEMENT (INFORMATIVE).....	38
E.1	NETWORK XXX.....	38
E.1.1	“id” attribute.....	38
E.1.2	Specification reference.....	38
E.1.3	Network-specific description of the <active> element.....	38
E.1.4	Any additional information relevant for this type of network.....	38

1. Scope

This document describes the presence data model used by the Presence SIMPLE enabler, and provides presence information element definitions.

2. References

2.1 Normative References

- [OMNA_pidfSvcDesc] Open Mobile Naming Authority Presence <service-description> Registry, Open Mobile Alliance™,
URL: <http://www.openmobilealliance.org/Tech/omna/omna-prs-PidfSvcDesc-registry.aspx>
- [PRS_RD] “Presence SIMPLE Requirements”, Version 1.1, Open Mobile Alliance™, OMA-TS-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>
- [RFC3863] IETF RFC 3863 “Presence Information Data Format (PIDF)”, H. Sugano et al., Aug 2004,
URL: <http://www.ietf.org/rfc/rfc3863.txt>
- [RFC4119] IETF RFC 4119 “Presence-based GEOPRIV Location Object Format”, J. Peterson, Dec 2005,
URL: <http://www.ietf.org/rfc/rfc4119.txt>
- [RFC4122] IETF RFC 4122 “A Universally Unique Identifier (UUID) URN Namespace”, P. Leach et al., Jul 2005,
URL: <http://www.ietf.org/rfc/rfc4122.txt>
- [RFC4479] IETF RFC 4479 “A Data Model for Presence”, J. Rosenberg, Jul 2006,
URL: <http://www.ietf.org/rfc/rfc4479.txt>
- [RFC4480] IETF RFC 4480 “RPID: Rich Presence Extensions to the Presence Information Data Format (PIDF)”, H. Schulzrinne et al., Jul 2006,
URL: <http://www.ietf.org/rfc/rfc4480.txt>
- [RFC4589] IETF RFC 4589 “Location Types Registry”, H. Schulzrinne, Jul 2006,
URL: <http://www.ietf.org/rfc/rfc4589.txt>
- [XSD_pidfOMA] “PIDF OMA extensions”, Version 1.0, Open Mobile Alliance™, OMA-SUP-XSD_prs_pidf_omapres-V1_0,
URL: <http://www.openmobilealliance.org/Technical/schemas.aspx>
- [3GPP-TS_26.141] 3GPP TS 26.141 “IP Multimedia System (IMS) Messaging and Presence; Media formats and codecs”,
URL: http://www.3gpp.org/ftp/Specs/archive/26_series/26.141
- [3GPP2-C.P0071] 3GPP2 C.P0071 “IP Multimedia Domain(MMD) Codecs and Transport Protocols”,
URL: http://www.3gpp2.org/Public_html/specs/index.cfm

2.2 Informative References

- [OMNA] Open Mobile Naming Authority, Open Mobile Alliance™,
URL: <http://www.openmobilealliance.org/tech/omna.aspx>
- [RFC3455] IETF RFC 3455 “Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3rd-Generation Partnership Project (3GPP)”, M. Garcia-Martin et al., Jan 2003,
URL: <http://www.ietf.org/rfc/rfc3455.txt>
- [3GPP-TS_24.229] 3GPP TS 24.229 “Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3”,
URL: http://www.3gpp.org/ftp/Specs/archive/24_series/24.229
- [3GPP2-X.S0013-004] 3GPP2 X.S0013-004 “All-IP Core Network Multimedia Domain: IP Multimedia Call Control Protocol Based on SIP and SDP Stage 3”,
URL: http://www.3gpp2.org/Public_html/specs/index.cfm

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-specific Availability	Use definition from [PRS_RD].
Application-specific Willingness	Use definition from [PRS_RD].
Communication Address	Use definition from [PRS_RD].
Overriding Willingness	Use definition from [PRS_RD].
Presence Information	Use definition from [PRS_RD].
Presence Information Element	Use definition from [PRS_RD].
Presence Source	Use definition from [PRS_RD].
Presentity	Use definition from [PRS_RD].
Watcher	Use definition from [PRS_RD].

3.3 Abbreviations

3GPP	3 rd Generation Partnership Project
CDMA	Code Division Multiple Access
GIF	Graphic Interchange Format
GPRS	General Packet Radio Service
GSM	Global System for Mobile communications
IETF	Internet Engineering Task Force
IMS	IP Multimedia Subsystem
IP-CAN	IP-Connectivity Access Network
JPEG	Joint Photographic Experts Group
OMA	Open Mobile Alliance
OMNA	Open Mobile Naming Authority
PAG	Presence and Availability Group
PDA	Personal Digital Assistant
PIDF	Presence Information Data Format
PNG	Portable Network Graphics

PoC	Push-to-talk over Cellular
PS	Presence Server
RPID	Rich Presence Information Data Format
SIMPLE	SIP Instant Messaging and Presence Leveraging Extensions
SIP	Session Initiation Protocol
URI	Uniform Resource Identifier
URN	Uniform Resource Name
VoIP	Voice over Internet Protocol
WG	Working Group
XML	eXtensible Markup Language

4. Introduction

This specification describes the mapping of Presence Information to the presence data model components described in section 6.1, and also to specific elements of PIDF ([RFC3863]) or one of its extensions (e.g. RPID [RFC4480], Location Types [RFC4589], geographical location object [RFC4119], etc). In case such a mapping is not possible because elements with similar semantics have not been defined in IETF, then OMA-specific extensions to PIDF are defined.

5. Justification

Void

6. General

6.1 Presence Data Model

The presence data model as defined in [RFC4479] is categorized in four key components: the Presentity URI, the “person”, the “service” and the “device”:

- The Presentity’s URI component indicates the Presentity’s identifier (SIP URI, tel URI or pres URI);
- The “person” components model the information about the Presentity;
- The “service” components model the forms of communication used by the Presentity;
- The “device” components model the physical pieces of equipment used by the Presentity.

The relationship between the data elements is according to the following scheme:

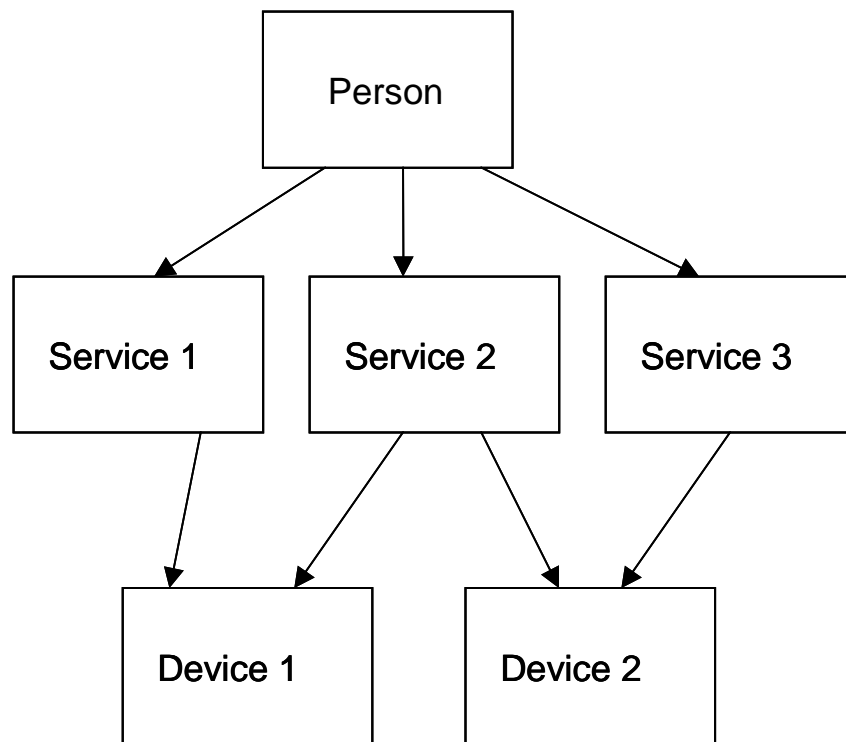


Figure 1: Relationship between the elements of the Presence Data Model

Each of these data elements models Presence Information (i.e. Presence attributes) that provides a description about a form of communication, a Presentity, or piece of equipment.

6.1.1 Person

The “person” component models information about the Presentity whom the presence data is trying to describe. Examples of Presence Information that can be represented by the “person” component are the activity that the Presentity is involved in, his/her overall willingness for any kind of communication, his/her physical appearance and mood.

The model supports only one “person” component per Presentity; nevertheless this does not preclude representing a group which appears to the Watcher as a single Presentity. However there may be cases where more than one “person” component

instance exists in the presence document, in cases where composition policy in the PS cannot clearly and semantically differentiate between the multiple instances of the same component. In that case the conflict is resolved as described in section 6.2.

The “person” component SHALL be mapped to the <person> element. The <person> element is specified in [RFC4479].

NOTE: The mandatory “id” attribute of the <person> element serves no other purpose than to syntactically distinguish between multiple instances of the element in a presence document.

6.1.2 Service

The “service” components model the forms of communication that the Presentity potentially has access to. Examples of Presence Information that can be represented by the “service” components are the Presentity’s willingness to communicate with PoC or IM, and the availability of SMS service in his/her terminal.

One other important characteristic of each “service” might be the devices on which that service executes. Each device is uniquely identified by the device identifier <deviceID> defined in [RFC4479]. A service may contain zero or more <deviceID> elements to indicate which devices that service is available on. The presence document may contain information on each device, but this is a separate part of the document modeled by the “device” component described in the next section.

The “service” component (defined in [RFC4479]) SHALL be mapped to the <tuple> element. The <tuple> element is specified in [RFC3863].

NOTE: The mandatory “id” attribute of the <tuple> element serves no other purpose than to syntactically distinguish between multiple instances of the element in a presence document.

6.1.3 Device

The “device” components model the physical piece of equipment in which services execute. Examples of Presence Information that can be represented by “device” elements include mobile phones, PCs and PDAs. As the same services may execute in multiple devices (e.g. IM running in the home PC and the mobile phone), the mapping of services to devices are many to many. Devices are uniquely identified with a device identifier. The model supports only one “device” component per device identifier, however the Presence Sources publish their own “device” component instances. The PS composes the multiple instances into one component and resolves conflicts among the Presence Sources.

The “device” component SHALL be mapped to the <device> element. The <device> element is specified in [RFC4479].

NOTE: The mandatory “id” attribute of the <device> element serves no other purpose than to syntactically distinguish between multiple instances of the element in a presence document.

For a given Presentity, the value of the <deviceID> element of the <device> element SHALL be unique for each device used by the Presentity. In case that multiple Presence Sources exist on a device, the Presence Sources SHALL ensure that irrespective of how many network access means are available in the device only one unique device identifier is used for presence publication.

A version 4 UUID as defined in [RFC4122] SHALL be used for <deviceID> to uniquely identify the device. This is a purely random identifier, providing uniqueness. As this pseudo-random used for <deviceID> is supposed to uniquely identify the particular device, it SHALL NOT change over the lifetime of the device and SHALL be stored in a non-volatile memory. It SHALL be used in all the presence publications requiring the use of <deviceID>.

6.2 Default Watcher Processing

This section describes the default Watcher processing rules for received Presence Information.

If the Watcher receives more than one <tuple> element in the presence document including:

- <contact> elements (defined in [RFC3863]) with the same values;

- <service-description> elements (defined in 7.1.2.1), if present, with identical <service-id> and <version> elements; and
- other conflicting child elements (i.e. elements with same names but different values or attributes),

then the Watcher SHALL select the child element with the latest <timestamp> element (defined in [RFC3863]) from the conflicting elements and SHALL ignore the remainder of the conflicting child elements from <tuple> elements.

NOTE 1: Particular <tuple> child elements might specify a different behaviour than the default.

If the Watcher recognizes more than one “person” component in the presence document with conflicting child elements (i.e. elements with same names but different values or attributes), the Watcher SHALL select the conflicting child element from the <person> element with the latest <timestamp> element as defined in [RFC4479] and SHALL ignore the remainder of the conflicting child elements from <person> elements.

NOTE 2: Particular <person> child elements might specify a different behaviour than the default.

A Watcher SHALL be able to interpret any application-specific subset of the elements listed in section 7 using the semantics described therein. The Watcher MAY support other PIDF extensions to interpret elements whose semantics do not match with those defined in section 7, as long as a Watcher that does not understand those extensions can ignore them without changing the Watcher’s interpretation of the presence elements that are understood.

7. Presence Information Element Definitions

This section includes PIDF extension packages to the presence data model described in section 6.1. New extension packages are created based on Input Contributions reviewed and agreed by the OMA PAG WG. A template for creating such Input Contributions is available from Appendix D.

7.1 Application-specific Willingness

7.1.1 Presence Information Element Semantics

7.1.1.1 Description

The “Application-specific Willingness” indicates whether the user of the specified communication service desires to receive incoming communication requests for the specified application and device (if specified).

7.1.1.2 Mapping to Presence Data Model

The “Application-specific Willingness” is a part of “service” information according to the presence data model.

7.1.1.3 Mapping to PIDF

The “Application-specific Willingness” building block SHALL be mapped to PIDF as follows: <tuple>→ <willingness>→ <basic>→ open/closed and <service-description>.

The <service-description> and <willingness> elements are defined in section 7.1.2.

7.1.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

If the “Overriding Willingness” element exists, then the value of that element SHALL be used and the value of the “Application-specific Willingness” SHALL be ignored.

If none of the two elements exist, then it should be concluded that it is not known whether the user of this communication service desires or not to receive incoming requests.

The semantics of the deduced “willingness” for a Watcher are the same, regardless if “application-specific” or “overriding” willingness was used by the Presentity.

7.1.1.5 Limitations

None.

7.1.2 PIDF Extension Elements

7.1.2.1 <service-description>

The <service-description> element is an extension to PIDF that is used to describe OMA-specific services. The <service-description> element SHALL be used as a child element of the <tuple> element as defined in [RFC3863].

Services utilizing this element SHALL register a unique value with OMNA. The OMNA Presence <service-description> Registry is available from [OMNA_pidfSvcDesc].

The <service-description> element:

- a) SHALL contain a <service-id> element that uniquely identifies the service. This element SHALL contain a string value;

- b) SHALL contain a <version> element that defines the version of the service. This element SHALL contain a string value in the form of “x.y” where “x” is the major version and “y” is the minor version of the particular service; and
- c) MAY contain a <description> element: If present, it SHALL contain a string value providing additional informative description of the service.

7.1.2.2 <willingness>

The <willingness> element is an extension to PIDF that is used to describe the “Application-specific willingness” building block. The <willingness> element SHALL be used as a child element of the <tuple> element as defined in [RFC3863].

The <willingness> element SHALL include the <basic> element and have two values “open” or “closed” indicating willingness for communication.

7.1.3 XML Schema

The XML schema for the PIDF extension elements is defined in [XSD_pidfOMA].

7.2 Overriding Willingness

7.2.1 Presence Information Element Semantics

7.2.1.1 Description

The “Overriding Willingness” provides an indication, set by the Presentity that takes precedence over “Application-specific willingness” settings. For example, when an “Overriding Willingness” element is present, a positive setting indicates that the user is willing to accept communications for all available communications types, while a negative setting indicates that the user is not willing to accept any communications.

7.2.1.2 Mapping to Presence Data Model

The “Overriding Willingness” is part of the “person” component according to the presence data model.

7.2.1.3 Mapping to PIDF

The “Overriding Willingness” building block SHALL be mapped to PIDF as follows: <person>→ <overriding-willingness>→ <basic>→ open/closed.

The <overriding-willingness> element is defined in section 7.2.2.

7.2.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

The semantics of the deduced “willingness” for a Watcher are the same, regardless if “application-specific” or “overriding” willingness was used by the Presentity.

7.2.1.5 Limitations

None.

7.2.2 PIDF Extension Elements

7.2.2.1 <overriding-willingness>

The <overriding-willingness> element is an extension to PIDF that is used to describe the “Overriding willingness” building block. The <overriding-willingness> element SHALL be used as a child element of the <person> element defined in [RFC4479].

The <overriding-willingness> element SHALL include the <basic> element and have two values “open” or “closed” indicating overriding willingness.

7.2.3 XML Schema

The XML schema for the PIDF extension elements is defined in [XSD_pidfOMA].

7.3 Application-specific Availability

7.3.1 Presence Information Element Semantics

7.3.1.1 Description

The “Application-specific Availability” indicates whether it is possible to receive an incoming communication request using the specified service and device (if specified). For example, if a Presentity is provisioned with the PoC Service, within coverage, has an appropriate handset, etc., he would be available for PoC, whereas if any of those were not true, he would be “Not Available”.

7.3.1.2 Mapping to Presence Data Model

The “Application-specific Availability” is part of the “service” component according to the presence data model.

7.3.1.3 Mapping to PIDF

The “Application-specific Availability” building block SHALL be mapped to PIDF as follows: <tuple>→<status>→<basic>→open/closed and <service-description>. The “Application-specific Availability” building block MAY also be mapped to <registration-state> and <barring-state>, if the information for creating these elements is available.

The <service-description>, <registration-state> and <barring-state> elements are defined in section 7.3.2.

NOTE: The semantics of the <registration-state> and <barring-state> elements are service specific. A particular service should further define the meaning of these elements in the scope of the service.

7.3.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

7.3.1.5 Limitations

None.

7.3.2 PIDF Extension Elements

7.3.2.1 <service-description>

See section 7.1.2.1.

7.3.2.2 <barring-state>

The <barring-state> element is an extension to PIDF that is used to contain the Presentity’s barring state pertaining to a particular service. The <barring-state> element, if present, SHALL be used as a child element of the <tuple> element defined in [RFC3863].

NOTE: this element is only useful for those services which have the option to block incoming or outgoing communication.

The <barring-state> element SHALL include either

- a) the value “active” indicating that the Presentity has activated communication barring pertaining to a specific service; or
- b) the value “terminated” indicating that the Presentity has deactivated communication barring pertaining to a specific service.

7.3.2.3 <registration-state>

The <registration-state> element is an extension to PIDF that is used to contain the Presentity’s registration state pertaining to a particular service. The <registration-state> element, if present, SHALL be used as a child element of the <tuple> element defined in [RFC3863].

The <registration-state> element SHALL include either

- a) the value “active” indicating that the Presentity has an active registration with a specific service; or
- b) the value “terminated” indicating that the Presentity does not have an active registration with a specific service.

7.3.3 XML Schema

The XML schema for the PIDF extension elements is defined in [XSD_pidfOMA].

7.4 Network Availability

7.4.1 Presence Information Element Semantics

7.4.1.1 Description

A device may be “connected” to one or more networks, such as a GSM, CDMA, GPRS, 802.11x, IMS, etc. However, connectivity to a network cannot be defined in a generic manner, as different states may exist for different networks. As such, the <network-availability> element is defined in a generic, extensible way. Each network that needs to be supported needs to extend this specification in order to stipulate the details.

The <network-availability> element SHALL include one or more <network> child elements. Each <network> element SHALL contain an “id” attribute indicating the network type. This value is defined in section 8.1 such that it is unique for that type of network. Additionally, each network type will need to define the meaning of “connected”, as well any additional information that is relevant for that type of network. The OMNA network-availability registry is available from [OMNA]. For additional details refer to Appendix E.

7.4.1.2 Mapping to Presence Data Model

The “Network Availability” is part of the “device” component according to the presence data model.

7.4.1.3 Mapping to PIDF

The “Network Availability” building block SHALL be mapped to PIDF as follows: <device>→ <network-availability>→ <network>. The <network-availability> and <network> elements are defined in section 7.4.2.

7.4.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

7.4.1.5 Limitations

None.

7.4.2 PIDF Extension Elements

7.4.2.1 <network-availability>, <network>

The <network-availability> element is an extension to PIDF that is used to describe the “Network Availability” building block. The <network-availability> element SHALL be used as a child element of the <device> element as defined in [RFC4479].

Each <network-availability> element SHALL include one or more <network> child elements. Each <network> element SHALL contain an “id” attribute indicating the type of the network.

Each <network> element:

- a) MAY include exactly one of:
 1. the <active> element indicating that the device is connected to the specific network; or
 2. the <terminated> element indicating that the device is not connected to the specific network.
- b) MAY include other elements from other namespaces for the purposes of extensibility.

7.4.3 XML Schema

The XML schema for the PIDF extension elements is defined in [XSD_pidfOMA].

7.5 Communication Address

7.5.1 Presence Information Element Semantics

7.5.1.1 Description

The value of this element is the URI used to invoke the specific service of the Presentity (e.g. SIP URI for a PoC service). When defining a new “service description type” for a new service, the precise semantics of what it means to “invoke the service” SHALL be defined.

7.5.1.2 Mapping to Presence Data Model

The “Communication Address” is part of the “service” component according to the presence data model.

7.5.1.3 Mapping to PIDF

The “Communication Address” building block SHALL be mapped to PIDF as follows: <tuple>→<contact>

7.5.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

7.5.1.5 Limitations

None.

7.6 Activity

7.6.1 Presence Information Element Semantics

7.6.1.1 Description

The “Activity” building block is an enumeration of activity-describing elements or free text provided by the Presentity indicating his/her/its current activity(ies).

7.6.1.2 Mapping to Presence Data Model

The “Activity” is part of the “person” component according to the presence data model.

7.6.1.3 Mapping to PIDF

The “Activity” building block SHALL be mapped to <activities> element defined in [RFC4480].

7.6.1.4 Watcher Processing

The default Watcher processing rules described in section 6.2 do not apply for this element.

Should more than one “activities” element be present in different <person> elements within a presence document, the Watcher SHALL consider the activities of the Presentity to be the aggregate of all <activities> elements. Duplicates SHALL be ignored.

7.6.1.5 Limitations

None.

7.7 Location Type

7.7.1 Presence Information Element Semantics

7.7.1.1 Description

The “Location-Type” building block indicates an enumerated or free text location value as provided by the Presentity. The value of this element indicates the type of location where the Presentity physically resides at that point in time.

7.7.1.2 Mapping to Presence Data Model

The “Location-Type” is part of the “person” component according to the presence data model.

7.7.1.3 Mapping to PIDF

The “Location-Type” building block SHALL be mapped to <place-type> element defined in [RFC4480].

7.7.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2, except for the case when the <place-type> element has a “from” or “until” attribute. In that case, should more than one <place-type> element be present in different <person> elements within a presence document, the Watcher SHALL consider the location-type of the Presentity to be the aggregate of all <place-type> elements. Duplicates SHALL be ignored.

7.7.1.4.1 Limitations

None.

7.8 Geographical Location

7.8.1 Presence Information Element Semantics

7.8.1.1 Description

The “Geographical Location” building block indicates the Presentity’s or the device’s geographical location.

7.8.1.2 Mapping to Presence Data Model

The “Geographical Location” is part of the “person” and/or “device” components according to the presence data model.

7.8.1.3 Mapping to PIDF

The “Geographical Location” building block SHALL be mapped to PIDF as follows: <person> -> <geopriv> -> <location-info> and <person> -> <geopriv> -> <usage-rules> and/or <device> -> <geopriv> -> <location-info> and <device> -> <geopriv> -> <usage-rules>. The <geopriv>, <location-info> and <usage-rules> elements are defined in [RFC4119].

7.8.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

7.8.1.5 Limitations

None.

7.9 Time Zone

7.9.1 Presence Information Element Semantics

7.9.1.1 Description

The value of this element indicates the difference between the time at the current location of the Presentity and current UTC time in minutes. The value should be such that when added to UTC, the time at the current location of the Presentity is obtained.

7.9.1.2 Mapping to Presence Data Model

The “Time-zone” is a part of “person” component according to the presence data model.

7.9.1.3 Mapping to PIDF

The “Time-zone” building block SHALL be mapped to <time-offset> element defined in [RFC4480].

7.9.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2, except for the case when the <time-offset> element has a “from” or “until” attribute. In that case, should more than one “Time-zone” element be present in different <person> elements within a presence document, the Watcher SHALL consider the time-zone of the Presentity to be the aggregate of all <time-offset> elements. Duplicates SHALL be ignored.

7.9.1.5 Limitations

The “Time-zone” SHALL follow the limitations described in [RFC4480].

7.10 Mood

7.10.1 Presence Information Element Semantics

7.10.1.1 Description

The “Mood” building block is an enumeration of mood-describing elements or free text indicating the Presentity’s mood.

7.10.1.2 Mapping to Presence Data Model

The “Mood” is a part of “person” component according to the presence data model.

7.10.1.3 Mapping to PIDF

The “Mood” building block SHALL be mapped to <mood> element defined in [RFC4480].

7.10.1.4 Watcher Processing

The default Watcher processing rules described in section 6.2 do not apply for this element.

Should more than one “mood” element be present in different <person> elements within a presence document, the Watcher SHALL consider the mood of the Presentity to be the aggregate of all <mood> elements. Duplicates SHALL be ignored.

7.10.1.5 Limitations

None.

7.11 Icon

7.11.1 Presence Information Element Semantics

7.11.1.1 Description

The “Icon” building block provides a small image that the Presentity may choose, such that the Watcher’s terminal can use this information to represent the Presentity in a graphical user interface.

Presentities SHOULD provide images of sizes and aspect ratios that are appropriate for mobile devices.

The “Icon” SHALL be expressed in one of the following image formats: JPEG, PNG and GIF, as described in [3GPP TS 26.141] and [3GPP2 C.P0071-0].

7.11.1.2 Mapping to Presence Data Model

The “Icon” is part of the “person” and/or “service” component according to the presence data model.

7.11.1.3 Mapping to PIDF

The “Icon” building block SHALL be mapped to <status-icon> element defined in [RFC4480].

7.11.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2, except for the case when the <status-icon> element has a “from” or “until” attribute. In that case, should more than one “Icon” element be present in different <person> or <tuple> elements within a presence document, the Watcher SHALL consider the icon of the Presentity to be the aggregate of all <status-icon> elements. Duplicates SHALL be ignored.

7.11.1.4.1 Limitations

None.

7.12 Session Participation

7.12.1 Presence Information Element Semantics

7.12.1.1 Description

The “Session Participation” building block indicates that the user is involved in at least one session of a specific service (e.g. PoC session). However definition of a “session” cannot be described in a “generic” manner, as it depends on the semantics of the specific enabler. As such the “session-participation” element is defined in a generic, extensible way. Each enabler that needs to support this element needs to extend this specification in order to stipulate the details. The participation in a session indicates to the Watcher that the Presentity may not be able to communicate with him/her even though it is possible technically.

7.12.1.2 Mapping to Presence Data Model

The “Session Participation” is part of the “service” component according to the presence data model.

7.12.1.3 Mapping to PIDF

The “Session Participation” building block SHALL be mapped to PIDF as follows: <tuple>→ <session-participation>→ <basic>→ open/closed, and <service-description>.

The <service-description> and <session-participation> elements are defined in section 7.12.2.

7.12.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

7.12.1.5 Limitations

None.

7.12.2 PIDF Extension Elements

7.12.2.1 <service-description>

See section 7.1.2.1.

7.12.2.2 <session-participation>

The <session-participation> element is an extension to PIDF that is used to describe the “Session Participation” building block. The <session-participation> element SHALL be used as a child element of the <tuple> element as defined in [RFC3863].

The <session-participation> element SHALL include the <basic> element and have two values “open” or “closed” indicating whether the Presentity is participating in at least one session of a specific service

7.12.3 XML Schema

The XML schema for the PIDF extension elements is defined in [XSD_pidfOMA].

7.13 Timestamp

7.13.1 Presence Information Element Semantics

7.13.1.1 Description

The “Timestamp” building block provides a timestamp specifying the time when the PS received the most recent information pertaining to the data component instance that contributes to the data component instance’s aggregation. The Watcher may use this information to compare information provided in data component instances. A “Timestamp” building block supplied by a Presence Source on publication of Presence Information is ignored by the PS when composing a presence document.

7.13.1.2 Mapping to Presence Data Model

The “Timestamp” can be part of “service”, “device” or “person” components according to the presence data model.

7.13.1.3 Mapping to PIDF

The “Timestamp” building block SHALL be mapped to <timestamp> element defined in [RFC3863] for “service” and [RFC4479] for “device” and “person”.

7.13.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

7.13.1.5 Limitations

The <timestamp> SHALL follow the limitations as defined in [RFC3863] for “service” and [RFC4479] for “device” and “person”.

7.14 Class

7.14.1 Presence Information Element Semantics

7.14.1.1 Description

The “Class” element describes the class of the “service” element or “person” element. Multiple elements can have the same class name within a presence document. The naming of classes is left to the Presentity. The Presentity can use this information to group similar “services” or “person” elements or to convey information that the PS can use for filtering or authorization.

7.14.1.2 Mapping to Presence Data Model

The “Class” is a part of “service” and/or “person” information according to the presence data model.

7.14.1.3 Mapping to PIDF

The “Class” element SHALL be mapped to <class> element defined in [RFC4480].

7.14.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

7.14.1.5 Limitations

None.

7.15 Note

7.15.1 Presence Information Element Semantics

7.15.1.1 Description

The “Note” building block is a free text value used to provides any type of written information to a potential Watcher.

7.15.1.2 Mapping to Presence Data Model

The “Note” element is part of the “person” component according to the presence data model.

7.15.1.3 Mapping to PIDF

The “Note” building block SHALL be mapped to the <note> element defined in [RFC4479].

7.15.1.4 Watcher Processing

The default Watcher processing rules described in section 6.2 do not apply for this element.

Should more than one “Note” element be present in different <person> elements within a presence document, the Watcher SHALL consider the notes of the Presentity to be the aggregate of all <note> elements. Duplicates SHALL be ignored.

7.15.1.5 Limitations

None.

7.16 Per-service Device Identifier

7.16.1 Presence Information Element Semantics

7.16.1.1 Description

The “Per service device identifier” building block identifies the device or devices where a particular “service” component executes.

7.16.1.2 Mapping to Presence Data Model

The “Per service device identifier” is part of the “service” component according to the presence data model.

7.16.1.3 Mapping to PIDF

The “Per service device identifier” building block SHALL be mapped to the <deviceID> element defined in [RFC4479].

7.16.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2.

7.16.1.5 Limitations

The value of the “Per service device identifier” SHALL be following the methodology and restrictions of section 6.1.3.

7.17 Relative Service Preference

7.17.1 Presence Information Element Semantics

7.17.1.1 Description

The “Relative Service Preference” building block provides the information on the user’s relative preference of a service over the other services (e.g. preference of OMA SIMPLE IM over SIP-based VoIP).

The “Relative Service Preference” building block corresponds to the description provided in section 3.3.3 of [RFC4479].

7.17.1.2 Mapping to Presence Data Model

The “Relative Service Preference” building block is part of the “service” component according to the presence data model.

7.17.1.3 Mapping to PIDF

The “Relative Service Preference” building block SHALL be mapped to <tuple> → <contact> → ‘priority’ attribute, as defined in [RFC3863].

7.17.1.4 Watcher Processing

Watcher processing SHALL be performed as described in section 6.2 and [RFC3863].

If two or more services share the same contact address but with different ‘priority’ attribute values, each ‘priority’ attribute value SHOULD be regarded as the Presentity’s relative service preference for the respective service.

7.17.1.5 Limitations

None.

8. Registry for Presence Information Element Values

This section includes mappings and values associated with Presence Information Elements defined in this specification. New mappings or values are created based on Input Contributions reviewed and agreed by the OMA PAG WG.

8.1 Network Availability

This section includes registered values for the <network-availability> element defined in section 7.4. New values are created based on Input Contributions reviewed and agreed by the OMA PAG WG. A template for creating such Input Contributions is available from Appendix E.

8.1.1 Network IMS

8.1.1.1 “id” attribute

The “id” attribute has the value of “IMS”.

8.1.1.2 Specification reference

The Stage-3 specification of the IP Multimedia Core Network Call Control Protocol is available in [3GPP-TS_24.229] and [3GPP2 X.S0013-004-A].

8.1.1.3 Network-specific description of the <active> element

The IMS registration procedures are defined in [3GPP-TS_24.229] and [3GPP2-X.S0013-004]. The Presentity’s “active” IMS registration status indicates whether the Presentity has performed a successful registration procedure with the IMS network and that registration is not expired or otherwise deregistered. Otherwise, the Presentity’s IMS registration status is set to “terminated”.

8.1.1.4 Any additional information relevant for this type of network

N/A.

8.1.2 IP-CAN used to access IMS

8.1.2.1 “id” attribute

The “id” has the same value as the attribute “access-type” in the P-Access-Network-Info header defined in section 7.2A.4.2 “Syntax” in [3GPP-TS_24.229].

8.1.2.2 Specification reference

The specification how to specify an IP-CAN in an “access-type” attribute in a P-Access-Network-Info header is available in [3GPP-TS_24.229], [3GPP2-X.S0013-004] and [RFC3455].

8.1.2.3 Network-specific description of the <active> element

The Presentity’s “active” IP-CAN status indicates that the Presentity’s device is connected via the indicated IP-CAN.

8.1.2.4 Any additional information relevant for this type of network

N/A

9. Operational Considerations

Void.

Appendix A. Change History

(Informative)

A.1 Approved Version History

Reference	Date	Description
OMA-DDS-Presence_SIMPLE-V1_0-20080627-A	27 Jun 2008	Status changed to Approved by TP TP ref# OMA-TP-2008-0250- INP_Presence_SIMPLE_V1_1_ERP_for_Final_Approval
OMA-DDS-Presence_SIMPLE-V1_0_1-20090310-D	10 Mar 2009	Incorporated CRs: OMA-PAG-2008-0747R03 OMA-PAG-2008-0836 OMA-PAG-2008-0853 OMA-PAG-2008-0856 OMA-PAG-2008-0857 Updated hyperlinks in section 2 according to PAG-09-001 R&A comment
OMA-DDS-Presence_SIMPLE-V1_0_1-20100225-A	25 Feb 2010	Status changed to Approved by TP TP ref# OMA-TP-2010-0110- INP_Presence_SIMPLE_V1_1_1_ERP_for_notification

Appendix B. Presence Document Overview (Informative)

Information structured according to the OMA presence data model is exchanged in an XML document that conforms to the basic Presence Information Data Format as defined in [RFC3863], and extended in other documents for the purpose of interworking.

The scheme below provides a high level overview of the data elements that may comprise an OMA presence XML document (<presence>).

- Column 1: Presence Information (as defined in this TS)
- Column 2: document where the associated <element> schema is defined
- Column 3: location of the <element> within the <presence> document
- data elements defined in [RFC3863] are written in *italic*
 - data elements defined in this document are written in **bold**

Person	schema	<person> ([RFC4479])
Overriding Willingness	[XSD_pidfOMA]	< overriding-willingness > →< <i>basic</i> > <i>open/closed</i>
Activity	[RFC4480]	<activities>
Textual Location	[RFC4480]	<place-type>
Time-zone	[RFC4480]	<time-offset>
Mood	[RFC4480]	<mood>
Icon	[RFC4480]	<status-icon>
Class	[RFC4480]	<class>
Geographical Location	[RFC4119] [RFC5139] [RFC4119]	<geopriv> →<location-info> →<civicAddress> <geopriv> →<usage-rules>
Note	[RFC4479]	<note>
Timestamp	[RFC4479]	<timestamp>

Note that according to the definition of the <person> element in [RFC4479], all child elements outside of [RFC4479] namespace must be placed before the <note> element.

Service	schema	<tuple> ([RFC3863])
Application-specific Availability	[RFC3863] [XSD_pidfOMA] [XSD_pidfOMA]	<status> →< <i>basic</i> > <i>open/closed</i> < registration-state > < barring-state >
Application-specific Willingness	[XSD_pidfOMA]	< willingness > →< <i>basic</i> > <i>open/closed</i>
Icon	[RFC4480]	<status-icon>
Session Participation	[XSD_pidfOMA]	< session-participation > →< <i>basic</i> > <i>open/closed</i>
Service Description	[XSD_pidfOMA]	< service-description >
Class	[RFC4480]	<class>
Per service device identifier	[RFC4479]	<deviceID>
Communication Address	[RFC3863]	<contact>
Timestamp	[RFC3863]	<timestamp>

Note that according to the definition of the <tuple> element in [RFC3863], all child elements outside of [RFC3863] namespace MUST be placed between the <status> and the <contact> element.

Device	schema	<device> ([RFC4479])
Class	[RFC4480]	<class>
Network Availability	[XSD_pidfOMA]	<network-availability> →<network> → <active/> / <terminated/>
Geographical Location	[RFC4119] [RFC5139]	<geopriv> →<location-info> →<civicAddress>
Device identifier	[RFC4119]	<geopriv> →<usage-rules>
Timestamp	[RFC4479]	<deviceID>
	[RFC4479]	<timestamp>

Note that according to the definition of the <device> element in [RFC4479], all child elements outside of [RFC4479] namespace MUST be placed before the <deviceID> element.

The following is an example of a raw OMA presence XML document.

```
<?xml version="1.0" encoding="UTF-8"?>
<presence xmlns="urn:ietf:params:xml:ns:pidf"
  xmlns:pdm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:rpId="urn:ietf:params:xml:ns:pidf:rpId"
  xmlns:op="urn:oma:xml:prs:pidf:oma-pres"
  xmlns:gp="urn:ietf:params:xml:ns:pidf:geopriv10"
  xmlns:cl="urn:ietf:params:xml:ns:pidf:geopriv10:civicLoc"
  xmlns:gml="urn:opengis:specification:gml:schema-xsd:feature:v3.0"
  xmlns:lt="urn:ietf:params:xml:ns:location-type"
  entity="sip:someone@example.com">

  <tuple id="a1231">
    <status>
      <basic>open</basic>
    </status>
    <op:willingness>
      <op:basic>open</op:basic>
    </op:willingness>
    <op:session-participation>
      <op:basic>open</op:basic>
    </op:session-participation>
    <rpId:status-icon> http://example.com/~my-icons/PoC-Session</rpId:status-icon>
    <op:registration-state>active</op:registration-state>
    <op:barring-state>terminated</op:barring-state>
    <rpId:class>forfriends</rpId:class>
    <op:service-description>
      <op:service-id>org.openmobilealliance:PoC-session</op:service-id>
      <op:version> 1.0 </op:version>
      <op:description>This is the OMA PoC-Session service</op:description>
    </op:service-description>
    <pdm:deviceID>urn:uuid:d27459b7-8213-4395-aa77-ed859a3e5b3a</pdm:deviceID>
    <contact priority="0.8">sip:someone@example.com</contact>
    <timestamp>2005-02-22T20:07:07Z</timestamp>
  </tuple>
  <tuple id="a1232">
```

```

<status>
  <basic>closed</basic>
</status>
<op:willingness>
  <op:basic>closed</op:basic>
</op:willingness>
<rpId:status-icon>http://example.com/~my-icons/PoC-Alert</rpId:status-icon>
<op:registration-state>active</op:registration-state>
<op:barring-state>active</op:barring-state>
<rpId:class>forfriends</rpId:class>
<op:service-description>
  <op:service-id>org.openmobilealliance:PoC-alert</op:service-id>
  <op:version>1.0</op:version>
  <op:description>This is the OMA PoC-Alert service</op:description>
</op:service-description>
<contact priority="0.5">sip:someone@example.com</contact>
<timestamp>2005-02-22T20:07:07Z</timestamp>
</tuple>

<pdm:person id="a1233">
  <op:overriding-willingness>
    <op:basic>open</op:basic>
  </op:overriding-willingness>
  <rpId:activities>
    <rpId:meeting/>
  </rpId:activities>
  <rpId:place-type> <lt:office/> </rpId:place-type>
  <rpId:mood> <rpId:happy/> </rpId:mood>
  <rpId:status-icon>http://example.com/~my-icons/busy</rpId:status-icon>
  <rpId:time-offset>120</rpId:time-offset>
  <gp:geopriv>
    <gp:location-info>
      <cl:civicAddress>
        <cl:country>US</cl:country>
        <cl:A1>New York</cl:A1>
        <cl:A3>New York</cl:A3>
        <cl:A6>Broadway</cl:A6>
        <cl:HNO>123</cl:HNO>
        <cl:LOC>Suite 75</cl:LOC>
        <cl:PC>10027-0401</cl:PC>
      </cl:civicAddress>
    </gp:location-info>
  </gp:geopriv>
  <rpId:class>forfriends</rpId:class>
  <pdm:note xml:lang="en">I'm in a boring meeting!!</pdm:note>
  <pdm:timestamp>2005-02-22T20:07:07Z</pdm:timestamp>
</pdm:person>

<pdm:device id="a1234">
  <op:network-availability>
    <op:network id="IMS">
      <op:active/>
    </op:network>
  </op:network-availability>
  <gp:geopriv>
    <gp:location-info>
      <gml:location>

```

```
<gml:Point gml:id="point1" srsName="epsg:4326">
  <gml:coordinates>37:46:30N 122:25:10W</gml:coordinates>
</gml:Point>
</gml:location>
</gp:location-info>
<gp:usage-rules>
  <gp:retransmission-allowed>no</gp:retransmission-allowed>
  <gp:retention-expiry>2003-06-23T04:57:29Z</gp:retention-expiry>
</gp:usage-rules>
</gp:geopriv>
<pdm:deviceID>urn:uuid:d27459b7-8213-4395-aa77-ed859a3e5b3a</pdm:deviceID>
<pdm:timestamp>2005-02-22T20:07:07Z</pdm:timestamp>
</pdm:device>
</presence>
```


Appendix C. Presence Document Examples (Informative)

Examples of how the Presence Information semantics are described in a typical Presence Information XML schema are shown below:

Presence Document describing:

- **PoC-Session Specific Availability: Not Available/ Not Registered**

```
<?xml version="1.0" encoding="UTF-8"?>
<presence xmlns="urn:ietf:params:xml:ns:pidf"
  xmlns:op="urn:oma:xml:prs:pidf:oma-pres"
  entity="sip:someone@example.com">
  <tuple id="a1232">
    <status>
      <basic>closed</basic>
    </status>
    <op:registration-state>terminated</op:registration-state>
    <op:barring-state>terminated</op:barring-state>
    <op:service-description>
      <op:service-id>org.openmobilealliance:PoC-session</op:service-id>
      <op:version>1.0</op:version>
    </op:service-description>
    <contact priority="0.1">sip:someone@example.com</contact>
    <timestamp>2005-02-22T10:25:01Z</timestamp>
  </tuple>
</presence>
```

Presence Document describing:

- **PoC-Session Specific Availability: Available/Registered/ISB not activated**
- **PoC-Session Specific Willingness: Willing**
- **Activity: Meal**
- **Geographical Location: Coord <X> and <Y>**

```
<?xml version="1.0" encoding="UTF-8"?>
<presence xmlns="urn:ietf:params:xml:ns:pidf"
  xmlns:pdm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:rpidd="urn:ietf:params:xml:ns:pidf:rpidd"
  xmlns:op="urn:oma:xml:prs:pidf:oma-pres"
  xmlns:gp="urn:ietf:params:xml:ns:pidf:geopriv10"
  xmlns:gml="urn:opengis:specification:gml:schema-xsd:feature:v3.0"
  entity="sip:someone@example.com">

  <tuple id="a1232">
    <status>
      <basic>open</basic>
    </status>
    <op:willingness>
      <op:basic>open</op:basic>
    </op:willingness>
    <op:registration-state>active</op:registration-state>
    <op:barring-state>terminated</op:barring-state>
    <op:service-description>
      <op:service-id>org.openmobilealliance:PoC-session</op:service-id>
```

```

    <op:version>1.0</op:version>
  </op:service-description>
  <contact priority="0.8">sip:someone@example.com</contact>
  <timestamp>2005-02-23T12:14:56Z</timestamp>
</tuple>

<pdm:person id="a1233">
  <rpId:activities>
    <rpId:meal/>
  </rpId:activities>
  <gp:geopriv>
    <gp:location-info>
      <gml:location>
        <gml:Point gid="point1" srsName="epsg:4326">
          <gml:coordinates>
            <gml:X>30 16 28S</gml:X>
            <gml:Y>45 15 33W</gml:Y>
          </gml:coordinates>
        </gml:Point>
      </gml:location>
    </gp:location-info>
    <gp:usage-rules/>
  </gp:geopriv>
  <pdm:timestamp>2005-02-23T12:14:56Z</pdm:timestamp>
</pdm:person>

```

```
</presence>
```

Presence Document describing:

- **PoC-Session Specific Availability: Available/Registered/ISB not activated**
- **PoC-Session Specific Willingness: Willing**
- **PoC Specific Session Participation: Not Engaging**
- **Device Identifier: urn:uuid: 48662e19-5fbf-43fc-a2fd-d23002787599**

```

<?xml version="1.0" encoding="UTF-8"?>
<presence xmlns="urn:ietf:params:xml:ns:pidf"
  xmlns:pdm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:rpId="urn:ietf:params:xml:ns:pidf:rpId"
  xmlns:op="urn:oma:xml:prs:pidf:oma-pres"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  entity="sip:someone@example.com">

  <tuple id="a1232">
    <status>
      <basic>open</basic>
    </status>
    <op:willingness>
      <op:basic>open</op:basic>
    </op:willingness>
    <op:session-participation>
      <op:basic>closed</op:basic>
    </op:session-participation>
    <op:registration-state>active</op:registration-state>
    <op:barring-state>terminated</op:barring-state>
    <op:service-description>

```

```

        <op:service-id>org.openmobilealliance:PoC-Session</op:service-id>
        <op:version>1.0</op:version>
    </op:service-description>
    <pdm:deviceID>urn:uuid:48662e19-5fbf-43fc-a2fd-d23002787599</pdm:deviceID>
    <contact priority="0.7">sip:someone@example.com</contact>
    <timestamp>2005-02-21T16:25:56Z</timestamp>
</tuple>

<pdm:device id="a1233">
<pdm:deviceID>urn:uuid:48662e19-5fbf-43fc-a2fd-d23002787599</pdm:deviceID>
    <pdm:timestamp>2005-02-21T16:25:56Z</pdm:timestamp>
</pdm:device>

</presence>

```

Presence Document describing:

- **PoC-Alert Specific Availability: Not Available/Registered/ISB activated**
- **PoC-Alert Specific Willingness: Not Willing**
- **Network-Availability: IMS-registered**
- **Mood: happy**
- **Location: mall public noisy**
- **Icon: <http://example.com/~someone/myicon.gif>**
- **the Device Identifier: urn:uuid:48662e19-5fbf-43fc-a2fd-d23002787599**

```

<?xml version="1.0" encoding="UTF-8"?>
<presence xmlns="urn:ietf:params:xml:ns:pidf"
  xmlns:pdm="urn:ietf:params:xml:ns:pidf:data-model"
  xmlns:rpdm="urn:ietf:params:xml:ns:pidf:rpdm"
  xmlns:op="urn:oma:xml:prs:pidf:oma-pres"
  xmlns:lt="urn:ietf:params:xml:ns:location-type"
  entity="sip:someone@example.com">
  <tuple id="a1232">
    <status>
      <basic>closed</basic>
    </status>
    <op:willingness>
      <op:basic>closed</op:basic>
    </op:willingness>
    <op:registration-state>active</op:registration-state>
    <op:barring-state>active</op:barring-state>
    <op:service-description>
      <op:service-id>org.openmobilealliance:PoC-Alert</op:service-id>
      <op:version>1.0</op:version>
      <op:description>This is the OMA POC-Alert service</op:description>
    </op:service-description>
    <pdm:deviceID>urn:uuid:48662e19-5fbf-43fc-a2fd-d23002787599</pdm:deviceID>
    <contact priority="0.1">>sip:someone@example.com</contact>
    <timestamp>2005-02-22T20:07:07Z</timestamp>
  </tuple>

  <pdm:person id="a1233">
    <rpdm:place-type>
      <lt:shopping-area/>
      <lt:public/>
    </rpdm:place-type>
  </pdm:person>

```

```
        </rpid:place-type>
        <rpid:mood>
          <rpid:happy/>
        </rpid:mood>
        <rpid:status-icon>http://example.com/~someone/myicon.gif</rpid:status-
icon>
        <pdm:timestamp>2005-02-22T20:07:07Z</pdm:timestamp>
      </pdm:person>

      <pdm:device id="a1234">
        <op:network-availability>
          <op:network id="IMS">
            <op:active/>
          </op:network>
        </op:network-availability>
        <pdm:deviceID>urn:uuid:48662e19-5fbf-43fc-a2fd-d23002787599</pdm:deviceID>
        <pdm:timestamp>2005-02-22T20:07:07Z</pdm:timestamp>
      </pdm:device>
    </presence>
```

Appendix D. Template for Input Contributions defining Presence Information Element (Informative)

D.1 Presence Information Element semantics

D.1.1 Presence Information Element A

D.1.1.1 Description

D.1.1.2 Mapping to presence data model

D.1.1.3 Mapping to PIDF

D.1.1.4 Watcher Processing

D.1.1.5 Limitations

D.2 PIDF extension elements

D.2.1 <example>

D.3 PIDF extension attributes

D.3.1 “example”

D.4 XML Schema

Appendix E. Template for Input Contributions defining values for the <network-availability> element (Informative)

E.1 Network XXX

E.1.1 “id” attribute

E.1.2 Specification reference

E.1.3 Network-specific description of the <active> element

E.1.4 Any additional information relevant for this type of network