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MULTIMEDIA SIGNALS

IPCablecom

IPCablecom2 presence specification

Recommendation ITU-T J.367



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IPCablecom2 presence specification

Summary

Recommendation ITU-T J.367 adds the Presence functionality to the IPCablecom2 architecture. This feature enables the exchange of dynamic information about the state of a logical entity (e.g., person, device) and its availability and willingness to communicate or to share.

Source

Recommendation ITU-T J.367 was approved on 13 June 2008 by ITU-T Study Group 9 (2005-2008) under Recommendation ITU-T A.8 procedure.

FOREWORD

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CONTENTS

Page

1	Scope	1
2	References.....	1
2.1	Normative References	1
2.2	Informative References	2
2.3	Reference Acquisition	3
3	Terms and definitions	3
4	Abbreviations, acronyms and conventions	4
4.1	Abbreviations and Acronyms	4
4.2	Conventions.....	5
5	IPCablecom2 Presence background	6
5.1	Relationship with Existing Presence Solutions	7
5.2	IPCablecom2 Presence Document Organization.....	8
6	IPCablecom2 Presence Architecture	8
6.1	Presence Functional Components.....	11
6.2	Presence Reference Points.....	14
6.3	Presence Protocols and Data Formats	17
6.4	XDM Protocols.....	21
6.5	Client Provisioning and Management	22
6.6	Accounting	22
6.7	Security.....	22
6.8	Codec.....	22
7	IPCablecom2 Presence Requirements	22
7.1	OMA Presence Enabler	23
7.2	OMA XDM Enabler	23
7.3	Provisioning and Management	24
	Appendix I – Informative Call Flow.....	25

Recommendation ITU-T J.367

IPCablecom2 presence specification

1 Scope

This Recommendation adds the Presence functionality to the IPCablecom2 architecture. This enables the exchange of dynamic information about the state of a logical entity (e.g., person, device) and its availability and willingness to communicate or to share. This information can be exploited, for example, by application servers to optimize or customize services. This Recommendation describes the IPCablecom2 Presence architecture that is aligned with the OMA Presence service. This Recommendation also adopts the normative requirements from the relevant OMA specifications and identifies the exceptions where applicable (clause 7).

It is an important objective of this work that interoperability between IPCablecom 2.0 and 3GPP IMS is provided. IPCablecom 2.0 is based upon 3GPP IMS, but includes additional functionality necessary to meet the requirements of cable operators. Recognizing developing converged solutions for wireless, wireline, and cable, it is expected that further development of IPCablecom 2.0 will continue to monitor and contribute to IMS developments in 3GPP, with the aim of alignment of 3GPP IMS and IPCablecom 2.0.

NOTE – The structure and content of this Recommendation have been organized for ease of use by those familiar with the original source material; as such, the usual style of ITU-T recommendations has not been applied.

2 References

2.1 Normative References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[OMA TS-PRS]	OMA-TS-Presence_SIMPLE-V1_0_1-20061128-A, Presence SIMPLE Specification, November 2006, <i>Open Mobile Alliance</i> .
[OMA TS-PRSXDM]	OMA-TS-Presence_SIMPLE_XDM-V1_0_1-20061128-A, Presence XDM Specification, November 2006, <i>Open Mobile Alliance</i> .
[OMA TS-RLSXDM]	OMA-TS-Presence_SIMPLE_RLS_XDM-V1_0_1-20061128-A, Resource List Server (RLS) XDM Specification, November 2006, <i>Open Mobile Alliance</i> .
[OMA TS-SHDXDM]	OMA-TS-XDM_Shared-V1_0_1-20061128-A, Shared XDM Specification, November 2006, <i>Open Mobile Alliance</i> .
[OMA TS-XDM]	OMA-TS-XDM_Core-V1_0_1-20061128-A, XML Document Management (XDM) Specification, November 2006, <i>Open Mobile Alliance</i> .

2.2 Informative References

The following informative references are used in this Recommendation.

- [ACCT] Recommendation ITU-T J.363, *IPCablecom2 data collection to support accounting*.
- [ARCH-FRM-TR] Recommendation ITU-T J.360, *IPCablecom2 architecture framework*.
- [CODEC-MEDIA] Recommendation ITU-T J.361, *IPCablecom2 codec and media*.
- [ID PARTNOT] IETF draft, draft-ietf-simple-partial-notify-10, *Session Initiation Protocol (SIP) extension for Partial Notification of Presence Information*, July 2007.
- [IETF RFC 5025] IETF RFC 5025, *Presence Authorization Rules*, December 2007.
- [IETF RFC 4825] IETF RFC 4825, *The Extensible Markup Language (XML) Configuration Access Protocol (XCAP)*, May 2007.
- [OMA AD-PRS] OMA-AD-Presence_SIMPLE-V1_0-20061128-A, *Presence SIMPLE Architecture Document*, November 2006, *Open Mobile Alliance*.
- [OMA AD-XDM] OMA-AD-XDM-V1_0-20060612-A, *XML Document Management Architecture*, June 2006, *Open Mobile Alliance*.
- [OMA RD-PRS] OMA-RD-Presence_SIMPLE-V1_0-20060725-A, *Presence SIMPLE Requirements*, July 2006, *Open Mobile Alliance*.
- [OMA RD-XDM] OMA-RD-XDM-V1_0-20060612-A, *XML Document Management Requirements*, June 2006, *Open Mobile Alliance*.
- [OMA PRES-MO] OMA-TS-Presence_SIMPLE_MO-V1_0_1-20061128-A, *OMA Management Object for SIMPLE Presence*, November 2006, *Open Mobile Alliance*.
- [OMA XDM-MO] OMA-TS-XDM_MO-V1_0_1-20061128-A, *OMA Management Object for XML Document Management*, November 2006, *Open Mobile Alliance*.
- [PKT 33.203] Recommendation ITU-T J.366.7 (2006), *IPCablecom2 IP Multimedia Subsystem (IMS): Access security for IP-Based services*.
- [PKT 33.210] Recommendation ITU-T J.366.8, *IPCablecom2 IP Multimedia Subsystem (IMS): Network domain security specification*.
- [IETF RFC 2617] IETF RFC 2617, *HTTP Authentication: Basic and Digest Access Authentication*, June 1999.
- [IETF RFC 3265] IETF RFC 3265, *Session Initiation Protocol (SIP)-Specific Event Notification*, June 2002.
- [IETF RFC 3856] IETF RFC 3856, *A Presence Event Package for the Session Initiation Protocol (SIP)*, August 2004.
- [IETF RFC 3857] IETF RFC 3857, *A Watcher Information Event Template-Package for the Session Initiation Protocol (SIP)*, August 2004.
- [IETF RFC 3863] IETF RFC 3863, *Presence Information Data Format (PIDF)*, August 2004.
- [IETF RFC 3903] IETF RFC 3903, *Session Initiation Protocol (SIP) Extension for Event State Publication*, October 2004.
- [IETF RFC 4119] IETF RFC 4119, *A Presence-based GEOPRIV Location Object Format*, December 2005.
- [IETF RFC 4480] IETF RFC 4480, *RPID: Rich Presence Extensions to the Presence Information Data Format (PIDF)*, July 2006.

- [IETF RFC 4483] IETF RFC 4483, *A Mechanism for Content Indirection in Session Initiation Protocol (SIP) Messages*, May 2006.
- [IETF RFC 4660] IETF RFC 4660, *Functional Description of Event Notification Filtering*, September 2006.
- [IETF RFC 4662] IETF RFC 4662, *A Session Initiation Protocol (SIP) Event Notification Extension for Resource Lists*, August 2006.
- [TS 22.141] 3GPP TS 22.141 V6.5.0, *Presence Service; Stage 1 (Release 6)*, December 2005.
- [TS 23.141] 3GPP TS 23.141 V6.9.0, *Presence Service; architecture and functional description (Release 6)*, December 2005.
- [TS 24.141] 3GPP TS 24.141 V6.7.0, *Presence service using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3 (Release 6)*, September 2006.
- [TS 26.141] 3GPP TS 26.141 V6.3.0, *IP Multimedia System (IMS) Messaging and Presence; Media formats and codecs (Release 6)*, March 2006.
- [TS 33.141] 3GPP TS 33.141 V6.2.0, *Presence service; Security (Release 6)*, September 2005.
- [TS 33.220] 3GPP TS 33.220 V6.13.0, *Generic Authentication Architecture (GAA); Generic bootstrapping architecture (Release 6)*, June 2007.
- [TS 33.222] 3GPP TS 33.222 V6.6.0, *Generic Authentication Architecture (GAA); Access to network application functions using Hypertext Transfer Protocol over Transport Layer Security (HTTPS)*, March 2006.

2.3 Reference Acquisition

- Internet Engineering Task Force (IETF), Internet: <http://www.ietf.org/>.
NOTE – Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. The list of current Internet-Drafts can be accessed at <http://www.ietf.org/ietf/1id-abstracts.txt>.
- 3rd Generation Partnership Project (3GPP), ETSI Mobile Competence Centre, 650 route des Lucioles, 06921 Sophia-Antipolis Cedex, France, Internet: <http://www.3gpp.org/>.
- Open Mobile Alliance (OMA), OMA Office, 4275 Executive Square, Suite 240, La Jolla, CA 92037, Fax +1-858-623-0743, Internet: <http://www.openmobilealliance.com/>.

3 Terms and definitions

This Recommendation uses the following terms defined elsewhere:

3.1 application usage: Detailed information on the interaction of an application with the XCAP server [IETF RFC 4825].

3.2 enabler: A term used by OMA to mean "a technology intended for use in the development, deployment or operation of a service". Examples of OMA Enablers are Device Management, Push-to-Talk over Cellular (PoC), Presence SIMPLE, and XML Document Management (XDM).

3.3 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 [OMA RD-PRS].

3.4 notification: A message sent from the Presence Service to a Subscriber when there is a change in the Presence Information of some Presentity of interest, as recorded in one or more Subscriptions [OMA RD-PRS].

3.5 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 [OMA RD-PRS].

3.6 presence information element: A basic unit of Presence Information [OMA RD-PRS].

3.7 presence list: A list of presentities that can have their individual states subscribed to with a single subscription request (e.g., a subscription list).

3.8 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 [OMA RD-PRS].

3.9 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 [OMA RD-PRS].

3.10 presence source: A logical entity that provides Presence Information pertaining to exactly one or more Presentities to the Presence Server. 3GPP Presence User Agents, Presence Network Agents, and Presence External Agents are examples of Presence Sources [OMA RD-PRS].

3.11 presentity: A logical entity that has Presence Information associated with it. This Presence Information may be composed of 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". Presentities are generally referenced by distinguished names, such as "john.smith@example.com" or by phone numbers like "+19724735455". In SIMPLE, presentities are generally referenced using a sip:, pres: or tel: URL [OMA RD-PRS].

3.12 subscriber: A form of watcher that has asked the Presence service to notify it immediately of changes in the Presence Information of one or more presentities [OMA RD-PRS].

3.13 subscription: The information kept by the presence service about a subscriber's request to be notified of changes in the Presence Information of one or more presentities [OMA RD-PRS].

3.14 watcher: Any uniquely identifiable entity that requests Presence Information about a presentity, or watcher information about a watcher, from the Presence service. Special types of watchers are fetchers and subscribers [OMA RD-PRS].

3.15 watcher Information: Information about watchers that have received or may receive Presence Information about a particular presentity within a particular recent span of time [OMA RD-PRS].

4 Abbreviations, acronyms and conventions

4.1 Abbreviations and Acronyms

This Recommendation uses the following abbreviations and acronyms:

3GPP	3rd Generation Partnership Project
3GPP2	3rd Generation Partnership Project 2
AP	Aggregation Proxy
AS	Application Server
AUID	Application Unique ID
AVP	Attribute-Value Pair
BSF	Bootstrapping Server Function
CDF	Charging Data Function

CGF	Charging Gateway Function
CSCF	Call Session Control Function
DM	Device Management
DMC	Device Management Client
DMS	Device Management Server
GAA	Generic Authentication Architecture
GBA	Generic Bootstrapping Architecture
HTTP	HyperText Transfer Protocol
IETF	Internet Engineering Task Force
IMS	IP Multimedia Subsystem
IP	Internet Protocol
MIME	Multipurpose Internet Mail Extensions
MMD	Multimedia Domain
MO	Management Object
OMA	Open Mobile Alliance
P-CSCF	Proxy Call Session Control Function
PIDF	Presence Information Data Format
PoC	Push-to-Talk over Cellular
QoS	Quality of Service
RLS	Resource List Server
SIMPLE	SIP for Instant Message and Presence Leveraging Extensions
SIP	Session Initiation Protocol
TLS	Transport Layer Security
UE	User Equipment
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
VoIP	Voice over Internet Protocol
XCAP	XML Configuration Access Protocol
XDM	XML Document Management
XDMC	XML Document Management Client
XDMS	XML Document Management Server
XML	Extensible Markup Language

4.2 Conventions

Throughout this Recommendation, the words that are used to define the significance of particular requirements are capitalized. These words are:

"MUST" This word means that the item is an absolute requirement of this Recommendation.