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SERIES J: CABLE NETWORKS AND TRANSMISSION
OF TELEVISION, SOUND PROGRAMME AND OTHER
MULTIMEDIA SIGNALS

IPCablecom

IPCablecom2 quality of service specification

Recommendation ITU-T J.368

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Summary

Recommendation ITU-T J.368 defines how the QoS capabilities of IPCablecom2 Multimedia are integrated with the Policy and Charging Control (PCC) architecture specified in the IPCablecom2 control plane architecture.

Source

Recommendation ITU-T J.368 was approved on 13 June 2008 by ITU-T Study Group 9 (2005-2008) under ITU-T Recommendation 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	1
2.3	Reference Acquisition	2
3	Terms and Definitions	2
4	Abbreviations, acronyms and conventions	2
4.1	Abbreviations and Acronyms	2
4.2	Conventions	3
5	Overview	3
5.1	QoS Architecture Reference Model	4
5.2	Functional Components	5
5.3	Protocol Interfaces and Reference Points.....	7
5.4	Application of QoS Policy within IPCablecom2.....	7
6	IPCablecom2 support of 3GPP Rx reference point	8
6.1	P-CSCF.....	8
6.2	IPCablecom2 Application Manager	10
7	Parameter Mapping.....	12
7.1	Mapping AA-Requests to Gate-Set	13
7.2	Mapping Gate-Set-Ack to AA-Answers	17

Document Sharing Hub



Documents

Rec. ITU-T J.368 (06/2008)

iii

Recommendation ITU-T J.368

IPCablecom2 quality of service specification

1 Scope

This Recommendation defines the requirements and functionality needed to support Quality of Service (QoS) within the IPCablecom2 Architecture

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.

- [PCMM] Recommendation ITU-T J.179, *IPCablecom support for multimedia*.
- [ETSI TS 29.214] ETSI TS 129.214, *Policy and Charging Control over Rx reference point, Release 7, V7.2.0*, September 2007.
- [ETSI TS 29.213] ETSI TS 129.213, *Policy and Charging Control signalling flows and QoS parameter mapping, Release 7, V7.2.0*, September 2007.

2.2 Informative References

This Recommendation uses the following informative references.

- [CPD] Recommendation ITU-T J.362, *IPCablecom2 control point discovery*.
- [CODEC-MEDIA] Recommendation ITU-T J.361, *IPCablecom2 codec and media*.
- [TS 23.203] 3GPP TS 23.203, *Policy and charging control architecture, Release 7, V7.3.0*, June 2007.
- [PKT 24.229] Recommendation ITU-T J.366.4 (2006), *IPCablecom2 IP Multimedia Subsystem (IMS): Session Initiation Protocol (SIP) and Session Description Protocol (SDP) – Stage 3 specification*.
- [TS 29.212] 3GPP TS 29.212, *Policy and Charging Control over Gx reference point, Release 7, V7.2.0*, September 2007.

- [ICE] IETF Internet Draft, Interactive Connectivity Establishment (ICE), A Methodology for Network Address Translator (NAT) Traversal for Offer/Answer Protocols, draft-ietf-mmusic-ice-18.txt, September 2007, work in progress.
- [NAT] Recommendation ITU-T J.360, *IPCablecom2 architecture framework*.

2.3 Reference Acquisition

- Third Generation Partnership Project (3GPP), Internet: <http://www.3gpp.org>
- 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>.

3 Terms and Definitions

This Recommendation defines the following terms:

3.1 DOCSIS: A set of interface specifications for transmitting data over cable television systems in a standard fashion.

3.2 IPCablecom2 application manager (PAM): A specialized Application Manager defined in IPCablecom2, primarily responsible for determining QoS resources needed for a session.

3.3 network enforced preconditions: A method of ensuring that necessary QoS resources are available before alerting the called user by withholding SIP messages within the network until the results of necessary policy interactions are known. This capability is independent from the use by the UE of the similarly named QoS Preconditions capability defined by RFCs 3312 and 3313.

3.4 policy server: A system that primarily acts as an intermediary between Application Manager(s) and CMTS(s). It applies network policies to Application Manager requests and proxies messages between the Application Manager and CMTS.

4 Abbreviations, acronyms and conventions

4.1 Abbreviations and Acronyms

This Recommendation uses the following abbreviations and acronyms:

AF	Application Function
AMID	Application Manager Identifier
BCID	Billing Correlation ID
CM	DOCSIS-compliant Cable Modem
CMTS	Cable Modem Termination System
CSCF	Call Session Control Function
DOCSIS®	Data Over Cable Service Interface Specifications
DSCP	Differentiated Services Code Point
IP-CAN	IP Connectivity Access Network
NAT	Network Address Translation
PAM	IPCablecom2 Application Manager
PCC	Policy and Charging Control