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**Information technology – UPnP device architecture –
Part 17-10: Quality of Service Device Control Protocol – Level 3 – Quality of
Service Device Service**

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INFORMATION TECHNOLOGY – UPNP DEVICE ARCHITECTURE –

Part 17-10: Quality of Service Device Control Protocol – Level 3 – Quality of Service Device Service

FOREWORD

- 1) ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards. Their preparation is entrusted to technical committees; any ISO and IEC member body interested in the subject dealt with may participate in this preparatory work. International governmental and non-governmental organizations liaising with ISO and IEC also participate in this preparation.
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International Standard ISO/IEC 29341-17-10 was prepared by UPnP Forum Steering committee¹, was adopted, under the fast track procedure, by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 29341 series, under the general title *Information technology – UPnP device architecture*, can be found on the IEC web site.

This International Standard has been approved by vote of the member bodies, and the voting results may be obtained from the address given on the second title page.

¹ UPnP Forum Steering committee, UPnP Forum, 3855 SW 153rd Drive, Beaverton, Oregon 97006 USA. See also "Introduction".

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1 Overview and Scope

This service definition is compliant with the UPnP Device Architecture version 1.0.[DEVICE]

This service-type enables modeling of the 'QosDevice' function capabilities. The QosDevice:3 Service is a function typically implemented in source, sink and intermediate network. The [QosDevice](#) Service is responsible for providing the appropriate network resources to traffic streams and information about the state of the device as requested by the QosManager as defined in the QosManager:3 Service. [QM]

Several L2 Technologies were considered during the design of UPnP-QoS v3. These technologies are described in UPnP QosDevice:3 Underlying Technology Interface Addendum [QD_Add] . Every attempt was made to ensure that the design of version 3 would accommodate other L2 Technologies as well. Each L2 Technology on which UPnP-QoS version 3 is implemented is recommended to have a document that is compliant to the template in Annex B which specifies how the L2 Technology defines certain state variables, maps parameters, etc.

This document does not address the procedures for end-to-end set up of a new traffic stream or end-to-end revocation of an existing traffic stream. This procedure is defined in the UPnP QosManager:3 Service Document [QM] .

1.1 Referenced Specifications

Unless explicitly stated otherwise herein, implementation of the mandatory provisions of any standard referenced by this specification shall be mandatory for compliance with this specification.

1.1.1 Normative References

This clause lists the normative references used in this document and includes the tag inside square brackets that is used for each sub reference:

[Annex_G] – IEEE 802.1D-2004, Annex G, IEEE Standard for Information technology - Telecommunications and information exchange between systems - IEEE standard for local and metropolitan area networks - Common specifications - Media access control (MAC) Bridges, 2004.

[XML] – [Extensible Markup Language \(XML\) 1.0 \(Second Edition\)](#), T. Bray, J. Paoli, C. M. Sperberg-McQueen, E. Maler, eds. W3C Recommendations, 6 October 2000.

[QM] – UPnP QosManager:3 Service Document: This reference is informative except for the definitions of the following state variables, which are normative: [A_ARG_TYPE_TrafficDescriptor](#), [A_ARG_TYPE_NumTrafficDescriptors](#) and [A_ARG_TYPE_TrafficHandle](#).

Available at: <http://www.upnp.org/specs/qos/UPnP-qos-QosManager-v3-Service-20081130.pdf>

Latest version available at: <http://www.upnp.org/specs/qos/UPnP-qos-QosManager-v3-Service.pdf>

[QPH] - *UPnP QosPolicyHolder:3 Service Document*
Available at: <http://www.upnp.org/specs/qos/UPnP-qos-QosPolicyHolder-v3-Service-20081130.pdf>

Latest version available at: <http://www.upnp.org/specs/qos/UPnP-qos-QosPolicyHolder-v3-Service.pdf>

[DEVICE] - *UPnP Device Architecture, version 1.0.*

[RFC3339] – Date and Time on the Internet: Timestamps, G. Klyne, July 2002.
<http://www.ietf.org/rfc/rfc3339.txt>

[IANA] - IANA Interface Type (IANAifType)-MIB <http://www.iana.org/assignments/ianaiftype-mib>

[QD_Add] –UPnP QoSDevice:3 Underlying Technology Interface Addendum
Available at: <http://www.upnp.org/specs/qos/UPnP-qos-QoSDevice-v3-Addendum-20081130.pdf>

Latest version available at: <http://www.upnp.org/specs/qos/UPnP-qos-QoSDevice-v3-Addendum.pdf>

1.1.2 Informative References

This clause lists the informative references used in this document and includes the tag inside square brackets that is used for each sub reference:

[QoS Architecture] – UPnP QoS Architecture V3.0
Available at: <http://www.upnp.org/specs/qos/UPnP-qos-Architecture-v3-20081130.pdf>
Latest version available at: <http://www.upnp.org/specs/qos/UPnP-qos-Architecture-v3.pdf>

[HomePlug AV] – HomePlug AV Specification, version 1.1.00, Homeplug Powerline Alliance, www.HomePlug.org.

[MoCA1.0] MoCA MAC/PHY SPECIFICATION v1.0, 2006.

[MoCA1.1] MoCA MAC/PHY SPECIFICATION v1.1 EXTENSIONS. 2007.

[IEEE802.3] – IEEE Standard for Information technology— Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications IEEE Std 802.3™-2005.
<http://standards.ieee.org/getieee802/802.3.html>

[IEEE11] - 802.11-2007 IEEE Standard for Information Technology—Telecommunications and information exchange between systems—Local and metropolitan area networks— Specific requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications http://shop.ieee.org/ieeestore/Product.aspx?product_no=SS95708

[DSCP] - IETF RFC 2474, Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers, K. Nichols et al., December 1998.
Available at: <http://www.ietf.org/rfc/rfc2474.txt>