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INTERNATIONAL STANDARD



**Information technology – UPnP device architecture –
Part 17-1: Quality of Service Device Control Protocol – Level 3 – Quality of
Service Architecture**

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INFORMATION TECHNOLOGY – UPnP DEVICE ARCHITECTURE –

Part 17-1: Quality of Service Device Control Protocol – Level 3 – Quality of Service Architecture

FOREWORD

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International Standard ISO/IEC 29341-17-1 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 Introduction

This architecture document describes the motivation, use and interaction of the three services that comprise version 3 of the UPnP-QoS Framework:

- The [QosDevice:3](#) Service [QD:3],
- The [QosPolicyHolder:3](#) Service [QPH:3], and
- The [QosManager:3](#) Service [QM:3].

While UPnP-QoS defines three services (listed above), it does not define a new device type. Since Quality of Service issues need to be solved for multiple usage scenarios, it is expected that vendors could use any UPnP device as a container for the services defined by UPnP-QoS.

The UPnP-QoS Framework is compliant with the UPnP Device Architecture version 1.0.

This document is INFORMATIVE. This document is derived from the specifications and it does not describe what is required or optional. For required and optional functionalities, refer to the service definition documents. When there is a conflict between this document and (one of) the service definition documents, the latter prevail. This document avoids the words must, should, and may. Implementers are therefore referred to the appropriate service definition documents for requirements.

Definitions for terms used in this document can be found in [QM:3].

1.1 Versions of the UPnP-QoS Specifications

There are currently three versions of UPnP-QoS.

UPnP-QoS version 1 defines a framework for policy-based prioritized QoS.

UPnP-QoS version 2 extends the version 1 framework with

- A rotameter service to measure network performance and assist in the diagnosis of network problems, and
- A mechanism to indicate a [QosPolicyHolder](#) Service that will be used by the [QosManager](#) Service

UPnP-QoS version 3 extends the version 2 framework with

- Support for Admission Control,
- A mechanism to support a Preferred [QosPolicyHolder](#) Service,
- A way to configure the policy in the [QosPolicyHolder](#) Service.

This document describes UPnP-QoS version 3, please refer to the version 2 [QA:2] or version 1 [QA:1] architecture documents for more information on those versions.

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[QM:1] – UPnP QosManager:1 Service Document, Available at:
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[QM:2] – UPnP QosManager:2 Service Document, Available at:
<http://www.upnp.org/specs/qos/UPnP-qos-QosManager-v2-Service-20061016.pdf> Latest
version available at: <http://www.upnp.org/specs/qos/UPnP-qos-QosManager-v2-Service.pdf>

[QM:3] – UPnP QosManager:3 Service Document, 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>

[QD:1] – UPnP QosDevice:1 Service Document Available at:
http://www.upnp.org/standardizeddcp/docs/documents/UPnP_Qos_Device1_000.pdf

[QD:2] – UPnP QosDevice:2 Service Document Available at:
<http://www.upnp.org/specs/qos/UPnP-qos-QosDevice-v2-Service-20061016.pdf> Latest
version available at: <http://www.upnp.org/specs/qos/UPnP-qos-QosDevice-v2-Service.pdf>

[QD:3] – UPnP QosDevice:3 Service Document Available at:
<http://www.upnp.org/specs/qos/UPnP-qos-QosDevice-v3-Service-20081130.pdf> Latest
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[HPAV] – HPAV HomePlug AV Specification Version 1.1.00.

[CDS:1] – UPnP AV ContentDirectory Service Definition document version 1.0. Available at: <http://www.upnp.org/standardizeddcps/documents/ContentDirectory1.0.pdf> Latest version available at:

[CDS:2] – UPnP AV ContentDirectory Service Definition document version 2.0. Available at: <http://www.upnp.org/specs/av/UPnP-av-ContentDirectory-v2-Service.pdf> Latest version available at: <http://www.upnp.org/specs/av/UPnP-av-ContentDirectory-v2-Service-20060531.pdf>

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[QA:2] – UPnP-QoS Architecture version 2.0 Available at: <http://www.upnp.org/specs/qos/UPnP-qos-Architecture-v2-20061016.pdf> Latest version available at: <http://www.upnp.org/specs/qos/UPnP-qos-Architecture-v2.pdf>