International Standard

ISO/IEC/IEEE 8802-1DC

First edition
2025-09

Telecommunications and exchange between information technology systems — Requirements for local and metropolitan area networks —

Part 1DC: Quality of service provision by network systems

Télécommunications et échange entre systèmes informatiques — Exigences pour les réseaux locaux et métropolitains —

Partie 1DC: Qualité des services fournis par les systèmes de réseau

Reference number
ISO/IEC/IEEE 8802-1DC:2025(en)

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IEEE Std 802.1DC™-2024

IEEE Standard for Local and Metropolitan Area Networks—

Quality of Service Provision by Network Systems

Developed by the

LAN/MAN Standards Committee
of the
IEEE Computer Society

Approved 26 September 2024

IEEE SA Standards Board

Abstract: This standard specifies procedures and managed objects for quality of service (QoS) features specified in IEEE Std 802.1Q, such as Per-Stream Filtering and Policing, queuing, transmission selection, stream control, and frame preemption, in a network system that is not a Bridge.

Keywords: asynchronous traffic shaping, CQF, credit-based shaper, cyclic queuing and forwarding, frame preemption, IEEE 802.1DC™, IEEE 802.1Q™, LAN, local area network, Per-Stream Filtering and Policing, priority, quality of service, scheduled traffic, Time-Sensitive Networking, TSN, Virtual Bridged Network, virtual LAN, VLAN Bridge

The Institute of Electrical and Electronics Engineers, Inc.
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PDF: ISBN 979-8-8557-1309-1 STD27372
Print: ISBN 979-8-8557-1310-7 STDPD27372

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Introduction

This introduction is not part of IEEE Std 802.1DC-2024, IEEE Standard for Local and Metropolitan Area Networks—Quality of Service Provision by Network Systems.

This standard specifies quality of service provision by network systems.

This standard contains state-of-the-art material. The area covered by this standard is undergoing evolution. Revisions are anticipated within the next few years to clarify existing material, to correct possible errors, and to incorporate new related material. Information on the current revision state of this and other IEEE 802 standards may be obtained from:

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IEEE Standard for Local and Metropolitan Area Networks—

Quality of Service Provision by Network Systems

1. Overview

1.1 Scope

This standard specifies procedures and managed objects for quality of service (QoS) features specified in IEEE Std 802.1Q, such as Per-Stream Filtering and Policing, queuing, transmission selection, stream control, and preemption, in a network system that is not a Bridge.

1.2 Specification model

The model of operation documented by this standard is simply a basis for describing the functionality of a compliant equipment. Implementations can adopt any internal model of operation compatible with the externally visible behavior that this standard specifies. Conformance of equipment to this standard is purely in respect of observable protocol.

1.3 Specification precedence

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The Protocol Implementation Conformance Statement (PICS) proformas (see Annex A) reflect the occurrences of the words “shall,” “may,” and “should” within the standard.

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