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AMENDMENT 36

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

Part 1Q: Bridges and bridged networks

AMENDMENT 36: YANG Data Models for Scheduled Traffic, Frame Preemption, and Per-Stream Filtering and Policing

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

Partie 1Q: Ponts et réseaux pontés

AMENDEMENT 36

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IEEE Standard for
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Bridges and Bridged Networks

Amendment 36: YANG Data Models for Scheduled Traffic, Frame Preemption, and Per-Stream Filtering and Policing

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NOTE—The editing instructions contained in this amendment define how to merge the material contained therein into the existing base standard and its amendments to form the comprehensive standard.

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[6] Notes in text, tables, and figures are given for information only and do not contain requirements needed to implement the standard.

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1. Overview

1.3 Introduction

Insert new list item cs) after item cr) in 1.3 and renumber the subsequent list items accordingly:

cs) Define YANG configuration and operational state models (Clause 48) in support of scheduled traffic, frame preemption, and Per-Stream Filtering and Policing.

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12. Bridge management

12.29 Managed objects for scheduled traffic

12.29.1 The Gate Parameter Table

Insert two new rows at the end of Table 12-32 as follows (unchanged rows not shown):

Table 12-32—The Gate Parameter Table

Name	Data type	Operations supported[a]	Conformance[b]	References
SupportedCycleMax	RationalNumber (seconds)	R	B, E	8.6.8.4, 12.29.1.3, 12.29.1.6
SupportedIntervalMax	Integer	R	B, E	8.6.8.4, 12.29.1.7

[a] R= Read only access; RW = Read/Write access.

[b] B = Required for Bridge or Bridge component support of enhancements for scheduled traffic; E = Required for end station support of enhancements for scheduled traffic.

12.29.1.2 The gate control list structure and data types

12.29.1.2.1 GateControlEntry

Change 12.29.1.2.1 as follows:

A GateControlEntry consists of an operation name, followed by ~~up to~~ 2 parameters associated with the operation, as detailed in Table 8-7. The first parameter~~, if present,~~ is a gateStatesValue (12.29.1.2.2); the second parameter~~, if present,~~ is a timeIntervalValue (12.29.1.2.3).

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Insert 12.29.1.6 and 12.29.1.7 after 12.29.1.5 as follows:

12.29.1.6 SupportedCycleMax

The maximum value supported by this Port of the AdminCycleTime (8.6.9.4.3) and OperCycleTime (8.6.9.4.19) parameters.

12.29.1.7 SupportedIntervalMax

The maximum value supported by this Port of the timeIntervalValue (12.29.1.2.3) parameter.

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12.31 Managed objects for per-stream classification and metering

12.31.1 The Stream Parameter Table

Insert two new rows at the end of Table 12-34 as follows (unchanged rows not shown):

Table 12-34—The Stream Parameter Table

Name	Data type	Operations supported[a]	Conformance[b]	References
SupportedCycleMax	RationalNumber (seconds)	R	PSFP, ATS	8.6.5.4, 12.29.1.3, 12.29.1.6
SupportedIntervalMax	Integer	R	PSFP, ATS	8.6.5.4, 12.29.1.7

[a] R= Read only access; RW = Read/Write access.
[b] PSFP = Required for Bridge, Bridge component, or end station support of PSFP.
psfp = Optional for Bridge, Bridge component, or end station support of PSFP.
ATS = Required for Bridge or Bridge component support of ATS.
ats = Optional for Bridge or Bridge component support of ATS.
CI = Required for Bridge or Bridge component support of CI.

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Insert 12.31.1.7 and 12.31.1.8 after 12.31.1.6 as follows:

12.31.1.7 SupportedCycleMax

The maximum value supported by this Port of the AdminCycleTime (8.6.9.4.3) and OperCycleTime (8.6.9.4.19) parameters.

12.31.1.8 SupportedIntervalMax

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The maximum value supported by this Bridge component of the timeIntervalValue (12.31.3.2.4) parameter.

12.31.3 The Stream Gate Instance Table

12.31.3.2 The gate control list structure and data types

12.31.3.2.2 StreamGateControlEntry

Change 12.31.3.2.2 as follows:

A StreamGateControlEntry consists of an operation name, followed by three mandatory parameters and one optional parameter associated with the operation, as detailed in Table 8-4. The first parameter is a StreamGateStatesValue (8.6.10.5, 12.31.3.2.1); the second parameter is an IPV value (8.6.10.7, 12.31.3.2.3)~~,~~ ~~and~~; the third parameter is a timeIntervalValue (8.6.9.4.23, 12.31.3.2.4); and the fourth parameter is an IntervalOctetMaxValue (8.6.10.1, 12.31.3.2.5). IntervalOctetMaxValue is optional.

Insert 12.31.3.2.5 after 12.31.3.2.4 as follows:

12.31.3.2.5 IntervalOctetMaxValue

An unsigned integer, denoting an IntervalOctetMax in MSDU octets (see IntervalOctetMax in Table 8-4).

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17. Management Information Base (MIB)

17.2 Structure of the MIB

17.2.22 Structure of the IEEE8021-ST-MIB

Insert three new rows at the end of Table 17-28 as follows (unchanged rows not shown):

Table 17-28—IEEE8021-ST-MIB structure

IEEE8021-ST-MIB table/object	Reference
ieee8021STSupportedCycleMaxNumerator	SupportedCycleMax, 12.29.1.6
ieee8021STSupportedCycleMaxDenominator	SupportedCycleMax, 12.29.1.6
ieee8021STSupportedIntervalMax	SupportedIntervalMax, 12.29.1.7

17.2.24 Structure of the IEEE8021-PSFP-MIB

Insert three new rows at the end of Table 17-30 as follows (unchanged rows not shown):

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Table 17-30—IEEE8021-PSFP-MIB structure

IEEE8021-PSFP-MIB table/object	Reference
ieee8021PSFPSupportedCycleMaxNumerator	SupportedCycleMax, 12.31.1.7
ieee8021PSFPSupportedCycleMaxDenominator	SupportedCycleMax, 12.31.1.7
ieee8021PSFPSupportedIntervalMax	SupportedIntervalMax, 12.31.1.8

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17.7 MIB modules[7] [8]

17.7.14 Definitions for the IEEE8021-SRP-MIB module

Change 17.7.14 as follows:

```
IEEE8021-SRP-MIB DEFINITIONS ::= BEGIN

-- ================================================================
-- MIB for support of IEEE 802.1Qat Stream Reservation Protocol
-- (SRP) in IEEE 802.1Q Bridges.
-- ================================================================

IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    Counter64,
    Unsigned32
        FROM SNMPv2-SMI
    MacAddress,
    TEXTUAL-CONVENTION,
    TruthValue
        FROM SNMPv2-TC
    MODULE-COMPLIANCE,
    OBJECT-GROUP
        FROM SNMPv2-CONF
    ieee802dot1mibs,
    IEEE8021PriorityCodePoint,
    IEEE8021VlanIndex
        FROM IEEE8021-TC-MIB
    IEEE8021FqtssTrafficClassValue
        FROM IEEE8021-FQTSS-MIB
    ieee8021BridgeBaseComponentId,
    ieee8021BridgeBaseEntry,
    ieee8021BridgeBasePort,
    ieee8021BridgeBasePortEntry
        FROM IEEE8021-BRIDGE-MIB

    ;

ieee8021SrpMib MODULE-IDENTITY
    LAST-UPDATED "202211080000Z" -- November 8, 2022"202309260000Z" -- September 26, 2023
    ORGANIZATION "IEEE 802.1 Working Group"
    CONTACT-INFO
        "  WG-URL: http://www.ieee802.org/1/
         WG-EMail: stds-802-1-l@ieee.org
          Contact: IEEE 802.1 Working Group Chair
           Postal: C/O IEEE 802.1 Working Group
                   IEEE Standards Association
                   445 Hoes Lane
                   Piscataway, NJ 08854
                   USA
            E-mail: stds-802-1-chairs@ieee.org"
    DESCRIPTION
        "The Bridge MIB module for managing devices that support
        the IEEE Std 802.1Q Stream Reservation Protocol.

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        module are to IEEE Std 802.1Q-2022.

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```

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```
    REVISION "202309260000Z" -- September 26, 2023
    DESCRIPTION
            "Published as part of IEEE 802.1Qcw.
            Changed the applicable SYNTAX of object definitions
              ieee8021SrpStreamDataFramePriority, and
              ieee8021SrpStreamPreloadDataFramePriority
            from IEEE8021PriorityCodePoint to INTEGER
            to correct an error identifying PCP encoding SYNTAX
            instead of PCP values as intended."

    REVISION "202211080000Z" -- November 8, 2022
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q-2022.
            Cross references and contact information updated."

    REVISION "201810040000Z" -- October 4, 2018
    DESCRIPTION
            "Published as part of IEEE 802.1Qcc-2018.
                      Added managed objects for Stream Reservation
                      Protocol (SRP) Enhancements and Performance
                      Improvements"

    REVISION "201806280000Z" -- June 28, 2018
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q 2018.
            Cross references updated. "

    REVISION "201512020000Z" -- December 2, 2015
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q-2014 Cor-1.
            ieee8021SrpReservationFailureBridgeId changed to
            ieee8021SrpReservationFailureSystemId."

    REVISION "201412150000Z" -- December 15, 2014
    DESCRIPTION
            "Published as part of IEEE Std 802.1Q 2014 revision.
            Cross references updated and corrected."

    REVISION     "201102270000Z" -- February 27, 2011
    DESCRIPTION
         "Minor edits to contact information etc. as part of
          2011 revision of Std 802.1Q."

    REVISION     "201004190000Z" -- April 19, 2010
    DESCRIPTION
         "Initial revision, included in IEEE 802.1Qat"
    ::= { ieee802dot1mibs 19 }

-- ================================================================
-- Textual Conventions
-- ================================================================

IEEE8021SrpStreamRankValue ::= TEXTUAL-CONVENTION
    STATUS       current
    DESCRIPTION
        "An 802.1 SRP Stream Rank value. This is an integer,
         with the following interpretation placed on the value:

         0: Emergency, high-rank stream,
         1: Non-emergency stream."
    REFERENCE    "35.2.2.8.5b"
    SYNTAX       INTEGER {
                     emergency(0),
                     nonEmergency(1)
                 }


IEEE8021SrpStreamIdValue ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "1x:1x:1x:1x:1x:1x.1x:1x"
    STATUS       current
    DESCRIPTION
```

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