
P802.1Qdx

Type of Project: Amendment to IEEE Standard 802.1Q-2022

Project Request Type: Initiation / Amendment

PAR Request Date:

PAR Approval Date:

PAR Expiration Date:

PAR Status: Draft

Root Project: 802.1Q-2022

1.1 Project Number: P802.1Qdx

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Project Title: IEEE Standard for Local and Metropolitan Area Networks--Bridges and Bridged Networks Amendment: YANG Data Models for the Credit-Based Shaper

3.1 Working Group: Higher Layer LAN Protocols Working Group(C/LM/802.1 WG)

3.1.1 Contact Information for Working Group Chair:

Name: Glenn Parsons

Email Address: glenn.parsons@ericsson.com

3.1.2 Contact Information for Working Group Vice Chair:

Name: Jessy Rouyer

Email Address: jessy.rouyer@nokia.com

3.2 Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee(C/LM)

3.2.1 Contact Information for Standards Committee Chair:

Name: Paul Nikolich

Email Address: p.nikolich@ieee.org

3.2.2 Contact Information for Standards Committee Vice Chair:

Name: James Gilb

Email Address: gilb@ieee.org

3.2.3 Contact Information for Standards Representative:

Name: James Gilb

Email Address: gilb@ieee.org

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE SA for Initial Standards Committee Ballot: Jul 2024

4.3 Projected Completion Date for Submittal to RevCom: Mar 2025

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2.a Scope of the complete standard: This standard specifies Bridges that interconnect individual LANs, each supporting the IEEE 802 MAC Service using a different or identical media access control method, to provide Bridged Networks and VLANs.

5.2.b Scope of the project: This amendment specifies a Unified Modeling Language (UML)-based information model and YANG data models that allow configuration and status reporting for bridges and bridge components (as specified by this standard) with the capabilities currently specified in clause 8.6.8.2 (Credit-based algorithm) of this standard. It further defines the relationship between the information and data model and models for the other management capabilities specified in this standard. Additionally, this amendment will address errors or omissions to existing features related to the aforementioned clauses.

5.3 Is the completion of this standard contingent upon the completion of another standard? Yes

Explanation: This amendment builds upon the YANG modules developed by P802.1Qcw.

5.4 Purpose: Bridges, as specified by this standard, allow the compatible interconnection of information technology equipment attached to separate individual LANs.

5.5 Need for the Project: YANG (RFC 7950) is a formalized data modeling language that is widely accepted and can be used to simplify network configuration. The ability to manage the Credit-Based Shaper via YANG models is needed for compatibility with modern network management systems.

5.6 Stakeholders for the Standard: Developers, manufacturers, distributors, or users of time-sensitive applications, components, and equipment.

6.1 Intellectual Property

6.1.1 Is the Standards Committee aware of any copyright permissions needed for this project?

No

6.1.2 Is the Standards Committee aware of possible registration activity related to this project?

Yes

Explanation: The YANG Data Model will be assigned a Uniform Resource Name (URN) based on the IEEE Registration Authority (RA) URN tutorial and IEEE Std 802d.

7.1 Are there other standards or projects with a similar scope? No

7.2 Is it the intent to develop this document jointly with another organization? No

8.1 Additional Explanatory Notes: 2.1: While 'YANG' (developed by the Internet Engineering Task Force) appears to be an acronym its expansion 'Yet Another Next Generation' is not meaningful. It is vital that 'YANG' appear in the project title to inform potential participants and the target readership of the amendment.

5.3: P802.1Qcw – YANG Data Models for Scheduled Traffic, Frame Preemption, and Per-Stream Filtering and Policing

5.5: IETF Request For Comments (RFC) 7950 The YANG 1.1 Data Modeling Language

6.1.2: IEEE Std 802d IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture

Amendment 1: Allocation of Uniform Resource Name (URN) Values in IEEE 802 Standards IEEE RA URN tutorial:

<http://standards.ieee.org/develop/regauth/tut/ieeearn.pdf>