P802.1Qee

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: P802.1Qee
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: Traffic Engineering Extensions

3.1 Working Group: Higher Layer LAN Protocols Working Group(C/LAN/MAN/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/LAN/MAN)
3.2.1 Contact Information for Standards Committee Chair:
Name: James Gilb
Email Address: gilb_ieee@tuta.com
3.2.2 Contact Information for Standards Committee Vice Chair:
Name: David Halasz
Email Address: dave.halasz@ieee.org
3.2.3 Contact Information for Standards Representative:
Name: George Zimmerman
Email Address: george@cmephyconsulting.com

4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE SA for Initial Standards Committee Ballot: Jul 2028
4.3 Projected Completion Date for Submittal to RevCom: Jul 2029

5.1 Approximate number of people expected to be actively involved in the development of this project: 30
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 procedures and managed objects to extend bridge attributes for traffic engineering for LANs with more uncertain delays than those of point-to-point wireline MAC technologies. Additionally, this amendment addresses technical and editorial corrections to existing IEEE Std 802.1Q functionality.

5.3 Is the completion of this standard contingent upon the completion of another standard? Yes
Explanation: This amendment depends on the completion of the roll up revision of IEEE Std 802.1Q-2022.
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: IEEE Std 802.1Q currently does not provide support for traffic engineering to take into account the characteristics of LANs with more uncertain delays than those of point-to-point wireline MAC technologies. For instance, wireless systems often appear as a logical bridge in a bridged network. However, such logical bridges have significantly different characteristics compared to wireline bridges. IEEE Std 802.1Q currently does not provide means to describe such differences for traffic engineering. Extensions to bridge attributes are needed to enable effective traffic engineering for deployments including LANs with more uncertain delays than those of point-to-point wireline MAC technologies.

5.6 Stakeholders for the Standard: Manufacturers, distributors, vendors, and users of Virtual LAN bridging equipment and components thereof.

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.
The amendment will use the IEEE 802.1 Organizationally Unique Identifier (OUI) to create a globally unique application identifier as required.
The amendment may allow an OUI or Company Identifier (CID) to be used to create code points used in managed objects and protocol fields.

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

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8.1 Additional Explanatory Notes: #6.1.2: While 'YANG' (developed by the Internet Engineering Task Force) appears to be an acronym, its expansion is not meaningful. YANG is a data modeling language for the definition of data sent over network management protocols.
IETF Request For Comments (RFC) 7950, The YANG 1.1 Data Modeling Language
IEEE Std 802 IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture
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
link to the IEEE RA URN tutorial: https://standards.ieee.org/wp-content/uploads/import/documents/tutorials/ieeeurn.pdf
link to the IEEE RA Object Identifier (OID) tutorial: https://standards.ieee.org/wp-content/uploads/import/documents/tutorials/oid.pdf