P802.1Qdj

Submitter Email: stephan.kehrer.committees@gmail.com
Type of Project: Amendment to IEEE Standard 802.1Q-2018
PAR Request Date: 24-May-2019
PAR Approval Date:
PAR Expiration Date:
Status: Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.1Qdj
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Local and Metropolitan Area Networks--Bridges and Bridged Networks
Amendment: Configuration Enhancements

3.1 Working Group: Higher Layer LAN Protocols Working Group (C/LM/WG802.1)
Contact Information for Working Group Chair
  Name: John Messenger
  Email Address: j.l.messenger@ieee.org
  Phone: +441904699309
Contact Information for Working Group Vice-Chair
  Name: Jessy Rouyer
  Email Address: jessy.rouyer@nokia.com
  Phone: +1 469 661 2093

3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)
Contact Information for Sponsor Chair
  Name: Paul Nikolich
  Email Address: p.nikolich@ieee.org
  Phone: 8572050050
Contact Information for Standards Representative
  Name: James Gilb
  Email Address: gilb@ieee.org
  Phone: 858-229-4822

4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 12/2021
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2022

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, interfaces, and managed objects to enhance the three models of 'Time-Sensitive Networking (TSN) configuration'. It specifies enhancements to the User/Network Interface (UNI) to include new capabilities to support bridges and end stations in order to extend the configuration capability. This amendment preserves the existing separation between configuration models and protocol specifications. This amendment also addresses errors and omissions in the description of existing functionality.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
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: The management models and User/Network Interface (UNI) already described in Clause 46: Time-Sensitive Networking (TSN) configuration of IEEE Std 802.1Q include only the concepts (e.g. in form of a YANG types module) for managing bridged LANs using Time-Sensitive Networking (TSN) features. In order to be able to fully manage such bridged LANs with TSN features,

comprehensive interfaces and management modules are required that are currently not available. Enhancements are especially needed for the 'fully centralized' and 'centralized network/distributed user' configuration models. The proposed amendment will address these issues.

5.6 Stakeholders for the Standard: Developers, providers, and users of networking services and equipment for industrial, professional audio-video, automotive, consumer electronics and other systems requiring distributed stream reservation services for streaming of time-sensitive data.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: Yes

If yes please explain: The Simple Network Management Protocol (SNMP) MIB will be assigned an Object Identifier (OID) based on the Registration Authority (RA) OID tutorial and IEEE Std 802.

The YANG Data Model will be assigned a Uniform Resource Name (URN) based on the 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 Joint Development

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

---

8.1 Additional Explanatory Notes: #5.5 Clause 46: Time-Sensitive Networking (TSN) configuration of IEEE Std 802.1Q can be found in IEEE Std 802.1Qcc-2018

#6.1.b While 'YANG' (developed by the Internet Engineering Task Force) appears to be an acronym its expansion 'Yet Another Next Generation' is not meaningful. YANG is a widely-used standard that is relevant to the Registration Authority.

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

RA URN tutorial: http://standards.ieee.org/develop/regauth/tut/ieeeurn.pdf RA OID tutorial: http://standards.ieee.org/develop/regauth/tut/oid.pdf