P802.1Qcx

Submitter Email: janos.farkas@ericsson.com
Type of Project: Amendment to IEEE Standard 802.1Q-2014
PAR Request Date: 18-May-2017
PAR Approval Date:
PAR Expiration Date:
Status: Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.1Qcx
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: YANG Data Model for Connectivity Fault Management

3.1 Working Group: Higher Layer LAN Protocols Working Group (C/LM/WG802.1)
Contact Information for Working Group Chair
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3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)
Contact Information for Sponsor Chair
  Name: Paul Nikolich
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 11/2019
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2020

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 a YANG data model that allows configuration and status reporting for bridges and bridge components for Connectivity Fault Management (CFM) as specified by this standard with the capabilities currently specified in clause 12.14 (CFM entities) 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 open CFM maintenance items.

5.3 Is the completion of this standard dependent upon the completion of another standard: Yes
If yes please explain: P802.1Qcx builds upon the YANG Data Model being specified by IEEE P802.1Qcp, which cannot be approved until the maintenance revision of IEEE P802.1Q is approved.

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 CFM via YANG is needed for operation, administration, and management of modern networks.

5.6 Stakeholders for the Standard: Developers, providers, and users of networking services and equipment.

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 YANG Data Model will be assigned a URN based on the RA URN tutorial and IEEE Std 802d. The YANG data model will use a type definition for MAC addresses.

7.1 Are there other standards or projects with a similar scope?: Yes
If Yes please explain: IEEE 802.1 has been approached by MEF Forum and ITU-T SG15 for assistance with YANG models for CFM.

and answer the following
 Sponsor Organization: MEF Forum, ITU-T
 Project/Standard Number:
 Project/Standard Date:
 Project/Standard Title: Ongoing CFM YANG related projects in MEF Forum and ITU-T SG15.
7.2 Joint Development
 Is it the intent to develop this document jointly with another organization?: No

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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.
#5.1 IEEE P802.1Q-Rev Bridges and Bridged Networks
IEEE P802.1Qcp Bridges and Bridged Networks - Amendment: YANG Data Model
#5.5 RFC 7950 The YANG 1.1 Data Modeling Language
#6.1.b 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
MAC - Media Access Control
RA - Registration Authority
URN - Uniform Resource Name
#7.2 IEEE Std 802.1Q assigns CFM OpCodes, but this project will not make any changes or additions to the CFM OpCodes. This project will be coordinated with organizations for whom CFM OpCodes have been previously assigned.