P802.1Qci

Submitter Email: gparsons@ieee.org
Type of Project: Amendment to IEEE Standard 802.1Q-2014
PAR Request Date: 25-Mar-2015
PAR Approval Date: 11-Jun-2015
PAR Expiration Date: 31-Dec-2019
Status: PAR for an Amendment to an existing IEEE Standard
Root Project: 802.1Q-2014

1.1 Project Number: P802.1Qci
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: Per-Stream Filtering and Policing

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3.1 Working Group: Higher Layer LAN Protocols Working Group (C/LM/WG802.1)
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3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)
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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: 03/2017
4.3 Projected Completion Date for Submittal to RevCom: 10/2017

5.1 Approximate number of people expected to be actively involved in the development of this project: 40
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 standard specifies procedures and managed objects for a bridge to perform frame counting, filtering, policing, and service class selection for a frame based on the particular data stream to which the frame belongs, and a synchronized cyclic time schedule. Policing and filtering functions include the detection and mitigation of disruptive transmissions by other systems in a network, improving the robustness of that network.

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 development of standards for Time-Sensitive Networking (TSN) have shown that there exist no interoperable standards that enable a bridge to detect whether or not some systems in a network are conforming to behaviors agreed by configuration and/or

protocol exchanges. For example, devices that exceed the allocated bandwidth for one stream can prevent the network from achieving the benefits of TSN for any or all streams, not just the misbehaving stream.

5.6 Stakeholders for the Standard: Developers, providers, and users of networking services and equipment for IoT (including industrial automation, automotive networking, smart grid) and of operating systems, hypervisors and orchestration systems for virtual machines. This includes software developers, networking IC developers, bridge and NIC vendors, and users.

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?: No

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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

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8.1 Additional Explanatory Notes (Item Number and Explanation):