

P802.1Qch

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Type of Project: Amendment to IEEE Standard 802.1Q-2011

PAR Request Date: 18-Dec-2014

PAR Approval Date: 16-Feb-2015

PAR Expiration Date: 31-Dec-2019

Status: PAR for an Amendment to an existing IEEE Standard

Root Project: 802.1Q-2011

1.1 Project Number: P802.1Qch

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Local and Metropolitan Area Networks -- Media Access Control (MAC) Bridges and Virtual Bridged Local Area Networks Amendment: Cyclic Queuing and Forwarding

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: 09/2016

4.3 Projected Completion Date for Submittal to RevCom: 08/2017

5.1 Approximate number of people expected to be actively involved in the development of this project: 35

5.2.a. Scope of the complete standard: This standard specifies Media Access Control (MAC) Bridges that interconnect individual Local Area Networks (LANs), each supporting the IEEE 802 MAC service using a different or identical media access control method, to provide Bridged Local Area Networks and Virtual LANs (VLANs).

5.2.b. Scope of the project: This amendment specifies synchronized cyclic enqueueing and queue draining procedures, managed objects, and extensions to existing protocols that enable bridges and end stations to synchronize their transmission of frames to achieve zero congestion loss and deterministic latency.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: MAC 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: This amendment specifies a transmission selection algorithm that allows deterministic delays through a bridged network to be easily calculated regardless of network topology.

This is an improvement of the existing techniques that provides much simpler determination of network delays, reduces delivery jitter, and simplifies provision of deterministic services across a bridged LAN.

5.6 Stakeholders for the Standard: Developers, providers, and users of networking services and equipment for streaming of time-sensitive data. 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

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 (Item Number and Explanation):