

P802.1Qcb

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

PAR Request Date: 23-Jan-2013

PAR Approval Date:

PAR Expiration Date:

Status: Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.1Qcb

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: Frame Replication and Elimination for Reliability

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)

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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: 06/2016

4.3 Projected Completion Date for Submittal to RevCom: 02/2017

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 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 procedures, managed objects and protocols for bridges and end stations that provide:

- Identification and replication of frames, for redundant transmission.
- Identification of duplicate frames.
- Elimination of duplicate frames.

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: There are no other 802-compatible solutions providing fault tolerance without failover. To achieve this, it is necessary to create and eliminate duplicate frames. This can be done in end stations and bridges.

5.6 Stakeholders for the Standard: Developers, providers, and users of networking services and equipment for Industrial Automation, In-vehicle networking, Professional Audio-Video (AV) and other systems requiring high availability traffic, including networking integrated circuit (IC) developers, bridge and network interface card (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?: Yes

If Yes please explain: IEC 62439-3 defines high-availability mechanisms in automation networks. Unlike IEC 62439-3, which is restricted to ring topologies, this amendment will work on all LAN topologies.

and answer the following

Sponsor Organization: IEC

Project/Standard Number: 62439-3

Project/Standard Date: 07-May-2012

Project/Standard Title: IEC 62439-3, Parallel Redundancy Protocol (PRP) and High availability Seamless Redundancy (HSR)

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):