

PAR Request Date: 21 July 2006

PAR Approval Date:

PAR Signature Page on File: No

Type of Project: Amendment to IEEE Standard

Status: Unapproved PAR, Std 802.1Q-2005

Root Project:

1.1 Project No.: **P802.1Qau**

1.2 Type of Document: Standard

1.3 Life Cycle: Full-Use

1.4 Is this document in ballot now? No

2.1 Title

IEEE Standard for Local and Metropolitan Area Networks---Virtual Bridged Local Area Networks - Amendment:

2.1 Amendment/Corrigenda Title

10: Congestion Notification.

3.1 Working Group Name

[Higher Layer LAN Protocols Working Group](#)

Working Group Chair

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Working Group Vice Chair

3.2 Sponsor

[IEEE Computer Society Local and Metropolitan Area Networks \(C/LM\)](#)

Sponsor Chair

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Name of Standards Liaison Representative (if applicable)

3.3 Joint Sponsor

4.1 Type of Ballot: Individual

4.2 Expected Date of Submission for Initial Sponsor Ballot: July 2008

4.3 Projected Completion Date for Submittal to RevCom: July 2009

5.1 Approximate number of people expected to work on this project: 20

5.2 Scope: This standard specifies protocols, procedures and managed objects that support congestion management of long-lived data flows within network domains of limited bandwidth delay product. This is achieved by enabling bridges to signal congestion information to end stations capable of transmission rate limiting to avoid frame loss. This mechanism enables support for higher layer protocols that are highly loss or latency sensitive. VLAN tag encoded priority values are allocated to segregate frames subject to congestion control, allowing simultaneous support of both congestion controlled and other higher layer protocols. This standard does not specify communication or reception of congestion notification information to or from stations outside the congestion controlled domain or encapsulation of frames from those stations across the domain.

5.3 Is the completion of this document contingent upon the completion of another document? No

5.4 Purpose: Data center networks and backplane fabrics employ applications that depend on the delivery of data packets with a lower latency and much lower probability of packet loss than is typical of IEEE 802 VLAN bridged networks. This amendment will support the use of a single bridged local area network for these applications as well as traditional LAN applications.

5.5 Need for the Project: There is significant customer interest and market opportunity for Ethernet as a consolidated Layer 2 solution in high-speed short-range networks such as data centers, backplane fabrics, single and multi-chassis interconnects, computing clusters, and storage networks. These applications currently use Layer 2 networks that offer very low latency and controlled frame loss due to congestion. Use of a consolidated network will realize operational and equipment cost benefits.

5.6 Stakeholders for the Standard: Developers and users of networking for data center and backplane Ethernet environments including networking IC developers, switch and NIC vendors, and users.

6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes Presented Date: 2006-05-15

If no, please explain:

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

If yes, please explain:

6.1.c. Is the Sponsor aware of possible registration activity related to this project? No

If yes, please explain:

7.1 Are there other standards or projects with a similar scope? No

If yes, please explain:

Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

7.2 Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? ? No

Technical Committee Name and Number:

Contact person:

Contact person Phone Number:

Contact person Email Address:

7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No

7.4 Additional Explanatory Notes:

8.1 Sponsor Information:

Is the Scope of this project within the approved scope/definition of the Sponsor's Charter? Yes

If no, please explain: