

The PAR Copyright Release and [Signature Page](#) must be submitted by FAX to +1-732-875-0695 to the [NesCom Administrator](#).

If you have any questions, please contact the NesCom Administrator.

Once you approve and submit the following information, changes may only be made through the NesCom Administrator.

Draft PAR Confirmation Number:
Submittal Email: pthaler@broadcom.com
Type of Project: PAR for an amendment to existing Standard 802.1Q-2005
1.1 Project Number: P802.1Qbb
1.2 Type of Document: Standard for
1.3 Life Cycle: Full
1.4 Is this project in ballot now? No
1.5 Is the balloting group aware of the PAR modification?
2.1 Title of Standard: IEEE Standard for Local and Metropolitan Area Networks---Virtual Bridged Local Area Networks - Amendment: Priority-based Flow Control
3.1 Name of Working Group: Higher Layer LAN Protocols Working Group(C/LM/WG802.1) Contact information for Working Group Chair Anthony Jeffree 11a Poplar Grove Sale, Cheshire M33 3AX GB tony@jeffree.co.uk Working Group Vice Chair: Paul Congdon 9489 Treelake Road Granite Bay, CA 95746 US, Email: paul.congdon@hp.com
3.2 Sponsoring Society and Committee: IEEE Computer Society/Local and Metropolitan Area Networks(C/LM) Contact information for Sponsor Chair: Paul Nikolich 18 Bishops Lane Lynnfield, MA 01940 US p.nikolich@ieee.org Contact information for Standards Representative:
4.1 Type of Ballot: Individual
4.2 Expected Date of Submission for Initial Sponsor Ballot: 2009-03
4.3 Projected Completion Date for Submittal to RevCom: 2009-07
5.1 Approximate number of people expected to work on this project: 80

5.2 Scope of Proposed Standard: This standard specifies protocols, procedures and managed objects that enable flow control per traffic class on IEEE 802 full-duplex links. Data Center Bridging networks (bridges and end nodes) are characterized by limited bandwidth-delay product and limited hop-count. Traffic class is identified by the VLAN tag priority values. Priority-based flow control is intended to eliminate frame loss due to congestion. This is achieved by a mechanism similar to the IEEE 802.3x PAUSE, but operating on individual priorities. This mechanism, in conjunction with other Data Center Bridging technologies, enables support for higher layer protocols that are highly loss sensitive while not affecting the operation of traditional LAN protocols utilizing other priorities. In addition, PFC complements Congestion Notification in Data Center Bridging networks.



Old Scope:

5.3 Is the completion of this standard is dependent upon the completion of another standard:

No

If yes, please explain: The functions described by this project are intended to operate in conjunction with P802.1Qau and P802.1Qaz; however, no document dependency is expected.

5.4 Purpose of Proposed Standard: Data Center Bridging networks employ higher layer protocols that depend on the delivery of data frames without frame loss due to congestion. These protocols were designed for an underlying transport that approaches lossless behavior and therefore do not include appropriate response to frame loss due to congestion (e.g. back-off, slow restart, etc.). This amendment enables multiple data center networks, including those serving loss sensitive protocols (e.g. inter-processor communication, storage, etc.), to be converged onto an IEEE 802 network.

Old Purpose:

5.5 Need for the Project: There is significant customer interest and market opportunity for 802 LANs as a converged 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 environments currently use Layer 2 networks that do not discard packets due to congestion (e.g., Fibre Channel, InfiniBand). This project will bring comparable frame loss characteristics to 802 LANs in Data Center Bridging environments. This in conjunction with the other Data Center Bridging technologies enable converged networks. Use of a converged network will realize operational and equipment cost benefits.

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

Intellectual Property

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

If yes, state date: 2007-11-13

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:

and answer the following: Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

7.2 Future Adoptions

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

If Yes, the following questions must be answered:

Technical Committee Name and Number:

Other Organization Contact Information:

Contact person:

Contact 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

If yes, please explain:

7.4 Additional Explanatory Notes: (Item Number and Explanation)

Submit to NesCom

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