

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

<b>Draft PAR Confirmation Number</b>	
<b>Submittal Email:</b> pthaler@broadcom.com	
<b>Type of Project:</b> PAR for an amendment to existing Standard 802.3-2008	
<b>1.1 Project Number:</b> P802.3bd	
<b>1.2 Type of Document:</b> Standard for	
<b>1.3 Life Cycle:</b> Full	
<b>2.1 Title of Standard:</b> Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications - Amendment: MAC Control Frame for Priority-based Flow Control	
<b>3.1 Name of Working Group:</b> Higher Layer LAN Protocols Working Group(C/LM/WG802.1) <b>Contact information for Working Group Chair</b> Anthony Jeffree 11a Poplar Grove Sale, Cheshire M33 3AX GB tony@jeffree.co.uk <b>Working Group Vice Chair:</b> Paul Congdon 9489 Treelake Road Granite Bay, CA 95746 US, <b>Email:</b> paul.congdon@hp.com	
<b>3.2 Sponsoring Society and Committee:</b> IEEE Computer Society/Local and Metropolitan Area Networks(C/LM) <b>Contact information for Sponsor Chair:</b> Paul Nikolich 79 newbury st YAS BBF LLC Boston, MA 02116-3019 US p.nikolich@ieee.org <b>Contact information for Standards Representative:</b>	
<b>4.1 Type of Ballot:</b> Individual	
<b>4.2 Expected Date of Submission for Initial Sponsor Ballot:</b> 2009-11	
<b>4.3 Projected Completion Date for Submittal to RevCom:</b> 2010-03	
<b>5.1 Approximate number of people expected to work on this project:</b> 30	
<b>5.2 Scope of Proposed Standard:</b> This standard defines a MAC Control Frame to support 802.1Qbb Priority-based Flow Control. 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. Operation of priority-based flow control is limited to a domain controlled by a Data Center Bridging control protocol that controls the application of Priority-based Flow Control, Enhanced Transmission Selection, and Congestion Notification.

**Old Scope:**

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

Yes

**If yes, please explain:**IEEE 802.1Qbb

**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 adds the frame format to support 802.1Qbb Priority-based Flow Control.

**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 add the frame format to support Priority-based Flow Control which will bring comparable frame loss characteristics to 802 LANs in Data Center Bridging environments. This in conjunction with the IEEE 802.1 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. Also IEEE 802.3 as the registration authority for MAC Control opcodes.

### 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: 2008-11-11

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**

Explanation:

Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

**7.2 International Standards Activities**

**a. Adoptions**

Is there potential for this standard to be adopted by another organization? No

Organization:

Technical Committee Name:

Technical Committee Number:

Contact person Name:

Contact Phone:

Contact Email:

**b. Joint Development**

Is it the intent to develop this document jointly with another organization? No

Organization:

Technical Committee Name:

Technical Committee Number:

Contact person Name:

Contact Phone:

Contact Email:

**c. Harmonization**

Are you aware of another organization that may be interested in portions of this document in their standardization development efforts? No

Organization:

Technical Committee Name:

Technical Committee Number:

Contact person Name:

Contact Phone:

Contact Email:

**8.1 Additional Explanatory Notes: (Item Number and Explanation)**

Although the project is being done in 802.1, 802.3 controls the registry for code space in this area. Code points are not assigned until Sponsor Ballot. When the draft goes to Sponsor ballot, IEEE 802.3 will allocate a value for the Opcode.

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