P802.3br

Submitter Email: david_law@ieee.org
Type of Project: Amendment to IEEE Standard 802.3-2012
PAR Request Date: 13-Sep-2013
PAR Approval Date: 11-Dec-2013
PAR Expiration Date: 31-Dec-2017
Status: PAR for an Amendment to an existing IEEE Standard
Root Project: 802.3-2012

1.1 Project Number: P802.3br
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Ethernet Amendment Specification and Management Parameters for Interspersing Express Traffic

3.1 Working Group: Ethernet Working Group (C/LM/WG802.3)
Contact Information for Working Group Chair
  Name: David Law
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3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)
Contact Information for Sponsor Chair
  Name: Paul Nikolich
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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: 04/2015
4.3 Projected Completion Date for Submittal to RevCom: 05/2016

5.1 Approximate number of people expected to be actively involved in the development of this project: 30
5.2.a. Scope of the complete standard: This standard defines Ethernet local area, access and metropolitan area networks. Ethernet is specified at selected speeds of operation; and uses a common media access control (MAC) specification and management information base (MIB). The Carrier Sense Multiple Access with Collision Detection (CSMA/CD) MAC protocol specifies shared medium (half duplex) operation, as well as full duplex operation. Speed specific Media Independent Interfaces (MIIs) provide an architectural and optional implementation interface to selected Physical Layer entities (PHY). The Physical Layer encodes frames for transmission and decodes received frames with the modulation specified for the speed of operation,
transmission medium and supported link length. Other specified capabilities include: control and management protocols, and the provision of power over selected twisted pair PHY types.

5.2.b. Scope of the project: The scope of this project is to specify additions to and appropriate modifications of IEEE Std 802.3 to add support for interspersing express traffic over a single physical link.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: This document will not include a purpose clause.
5.5 Need for the Project: * Adoption of Ethernet into new market areas such as automotive, industrial automation, transportation (aircraft, railway and heavy trucks) has generated a need to converge low latency and best effort traffic streams.
* Currently this functionality requires multiple networks with parallel links.

* IEEE Std 802.3 currently does not have support for interspersed express traffic.
* This project will allow the needs of IEEE P802.1Qbu to be met with a single physical link between bridges.

5.6 Stakeholders for the Standard: Users and producers of systems and components for the automotive, industrial automation, transportation (aircraft and rail) industries, professional Audio Video industries.

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

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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

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8.1 Additional Explanatory Notes (Item Number and Explanation): Item 5.2b and 5.5: The title of IEEE Std 802.3 is IEEE Standard for Ethernet
Item 5.5: The title of IEEE P802.1Qbu is Draft Standard for Local and Metropolitan Area Networks-Media Access Control (MAC) Bridges and Virtual Bridged Local Area Networks Amendment: Frame Preemption