P802.3bn

Submitter Email: david_law@ieee.org
Type of Project: Amendment to IEEE Standard 802.3-2008
PAR Request Date: 17-May-2012
PAR Approval Date:
PAR Expiration Date:
Status: Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

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

2.1 Title: 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: Physical Layer Specifications and Management Parameters for Ethernet Passive Optical Networks Protocol over Coax

3.1 Working Group: Ethernet Working Group (C/LM/WG802.3)
Contact Information for Working Group Chair
  Name: David Law
  Email Address: david_law@ieee.org
  Phone: +44 131 665 7264
Contact Information for Working Group Vice-Chair
  Name: Wael Diab
  Email Address: wael.diab@gmail.com
  Phone: 4154468066

3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)
Contact Information for Sponsor Chair
  Name: Paul Nikolich
  Email Address: p.nikolich@ieee.org
  Phone: 857.205.0050
Contact Information for Standards Representative
None

4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 11/2013
4.3 Projected Completion Date for Submittal to RevCom: 08/2014

5.1 Approximate number of people expected to be actively involved in the development of this project: 85
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 project is to amend IEEE Std 802.3 to add physical layer specifications and management parameters for symmetric and/or asymmetric operation of up to 10 Gb/s on point-to-multipoint Radio Frequency (RF) distribution plants comprising either amplified or passive coaxial media. It also extends the operation of Ethernet Passive Optical Networks (EPON) protocols, such as MultiPoint Control Protocol (MPCP) and Operation Administration and Management (OAM).

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   **Changes in purpose:**
clause.
5.5 Need for the Project: The project is applicable to environments served with hybrid fiber-coax (HFC) networks. This project would allow the expansion of the addressable Ethernet market in the access space by running the EPON protocol over Coax. The project enables service providers to offer EPON services over HFC networks, which currently can only be provided on

a fiber network.

5.6 Stakeholders for the Standard: Stakeholders include, but are not limited to, telecommunication service providers, original equipment manufacturers (OEMs), cable infrastructure manufacturers and semiconductor manufacturers.

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 5.2.b: The amendment will comply with IEEE Std 802, IEEE Std 802.1D, and IEEE Std 802.1Q.