P802.3bk

Submitter Email: david_law@ieee.org
Type of Project: Modify Existing Approved PAR
PAR Request Date: 29-Oct-2012
PAR Approval Date:
PAR Expiration Date:
Status: Unapproved PAR, Modification to a Previously Approved PAR for an Amendment
Root PAR: P802.3bk **Approved on:** 29-Mar-2012

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

2.1 Title: Standard for Ethernet
Amendment: Physical Layer Specifications and Management Parameters for Extended Ethernet Passive Optical Networks

Changes in title: ~~IEEE~~ Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for Extended Ethernet Passive Optical Networks

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
Name: James Gilb
Email Address: gilb@ieee.org
Phone: 858-229-4822

4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 07/2013
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: 25
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 amend IEEE Std 802.3 to add at least one physical layer specification, possibly optical power budget extenders, and management parameters necessary for Ethernet Passive Optical Networks (EPON) to support optical loss budgets in excess of those specified in IEEE Std 802.3-2012 (Standard for Ethernet).

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: The purpose of this project is to extend the optical loss budgets supported by Ethernet Passive Optical Networks to support higher density and longer reach applications, while optimizing costs of ownership.

5.5 Need for the Project: The project is needed to enable broadband service providers to utilize Ethernet Passive Optical Networks (EPON) at longer reach, higher split ratios or both for more cost-effective scaling.

The project will allow for the expansion of the EPON service area and reduced cost per subscriber.
Additional benefits include reduction of the footprint and power consumption of central office equipment, as well as minimization of service upgrade and fiber deployment costs, while increasing customer density per central office and allowing central office consolidation.

5.6 Stakeholders for the Standard: The stakeholders include telecom system and component vendors, telecommunications carriers, and multiple system operators (MSOs).

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

---

7.1 Are there other standards or projects with a similar scope?: Yes
If Yes please explain: There is a regional project of similar scope in CCSA but there is a desire for a single international standard.

and answer the following
Sponsor Organization: CCSA
Project/Standard Number: YD/T 1688.4-2011
Project/Standard Date:
Project/Standard Title: xPON
Technical specification of optical transceiver module for xPON Part 4: optical transceiver module for 10G EPON OLT/ONU
7.2 Joint Development
Is it the intent to develop this document jointly with another organization?: No

---

8.1 Additional Explanatory Notes (Item Number and Explanation): Item 5.2B: 'The IEEE 802.3-2012 revision has recently been approved. This supersedes both IEEE Std 802.3-2008 and IEEE Std 802.3av-2009 which were reference in this PAR. In addition the IEEE 802.3-2012 revision changed the IEEE 802.3 title. The scope is therefore updated to reflect it is an amendment to the new IEEE 802.3-2012 revision and to use the new IEEE 802.3 title.