P802.3ca

Submitter Email: david_law@ieee.org
Type of Project: Modify Existing Approved PAR
PAR Request Date: 07-Sep-2018
PAR Approval Date:
PAR Expiration Date:
Status: Unapproved PAR, Modification to a Previously Approved PAR for an Amendment
Root PAR: P802.3ca **Approved on:** 05-Dec-2015

1.1 Project Number: P802.3ca
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 25 Gb/s and 50 Gb/s Passive Optical Networks

Changes in title: ~~Approved Draft~~ Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for 25 Gb/s~~, 50 Gb/s,~~ and ~~100~~50 Gb/s Passive Optical Networks

3.1 Working Group: Ethernet Working Group (C/LM/WG802.3)
Contact Information for Working Group Chair
Name: David Law
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Name: Adam Healey
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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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Contact Information for Standards Representative
Name: James Gilb
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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: 07/2019~~18~~
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 02/2020

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 amend IEEE Std 802.3 to add physical layer specifications and management parameters for point-to-multipoint passive optical networks supporting MAC data rates of 25 Gb/s or 50 Gb/s in the downstream direction and 10 Gb/s, 25 Gb/s, or 50 Gb/s in the upstream direction, with distance and split ratios consistent with those defined in IEEE Std 802.3. It also

Changes in scope of the project: The scope of this project is to amend IEEE Std 802.3 to add physical layer specifications and management parameters for ~~symmetric~~point-to-multipoint ~~and/or~~passive ~~asymmetric~~optical ~~operation~~networks ~~at~~supporting MAC data rates of 25 Gb/s~~,~~ or 50 Gb/s~~,~~ in the downstream direction and ~~100~~10 Gb/s, ~~MAC~~25 ~~data~~Gb/s, ~~rates~~or ~~on~~50 ~~point-to-multipoint~~Gb/s

extends the operation of Ethernet Passive Optical Networks (EPON) protocols, such as MultiPoint Control Protocol (MPCP) and Operation Administration and Management (OAM).

~~passive~~in ~~optical~~the ~~networks~~upstream direction, with distance and split ratios consistent with those defined in IEEE Std 802.3~~-2015~~. 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 clause.

5.5 Need for the Project: The project is applicable to business and residential access environments. The project is needed to enable access network operators to provide advanced bandwidth-intensive services while reducing footprint of network equipment, simplifying service upgrades, reducing network upgrade cost, and reducing fiber deployment costs.

5.6 Stakeholders for the Standard: The stakeholders include access network operators, system suppliers, component suppliers, and subscribers.

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 5.2.b: IEEE Std 802.3 IEEE Standard for Ethernet.
Item 2.1 and 5.2.b: It has been agreed to modify the scope of the project to (a) remove 100 Gb/s operation, and (b) add extensions to the Ethernet Passive Optical Networks (EPON) protocols. The title has been updated to reflect the removal of 100 Gb/s from the scope.
Item 4.2 and 4.3: These dates have been updated to reflect the current project plan.