

P802.3ca

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Type of Project: Amendment to IEEE Standard 802.3-2015

PAR Request Date: 29-Sep-2015

PAR Approval Date:

PAR Expiration Date:

Status: Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.3ca

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Approved Draft Standard for Ethernet

Amendment: Physical Layer Specifications and Management Parameters for 25 Gb/s and 100 Gb/s Passive Optical Networks

3.1 Working Group: Ethernet Working Group (C/LM/WG802.3)

Contact Information for Working Group Chair

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3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

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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: 07/2018

4.3 Projected Completion Date for Submittal to RevCom: 05/2019

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 [symmetric and/or asymmetric](#) operation at 25 Gb/s, [50 Gb/s](#), and 100 Gb/s MAC data rates on point-to-multipoint passive optical networks [with distance and split ratios consistent with those defined in IEEE Std 802.3-2015](#).

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 significantly increase performance of point-to-multipoint architecture (Ethernet Passive Optical Network) to support emerging bandwidth-intensive services while considering equipment, operation, upgrade, and maintenance costs.~~ **Changes in purpose:**

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

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

8.1 Additional Explanatory Notes (Item Number and Explanation):