25GSMF Study Group

Proposed PAR Text

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Version 4

Background

- This contribution proposes PAR text for the IEEE 802.3 25GSMF Study Group.

2.1 Project Title

IEEE Standard for Ethernet Amendment:

Physical Layer and Management Parameters for Serial 25 Gb/s Ethernet Operation Over Single Mode Fiber

Other PAR Fields (1)

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: ***TBD***

4.3 Projected Completion Date for Submittal to RevCom: ***TBD***

5.1 Approximate number of people expected to be actively involved in the development of this project: ***TBD***

5.2 Scope: <next slide>

5.3 Is the completion of this standard dependent upon the completion of another standard: No.

5.4 Purpose: This document will not include purpose clause

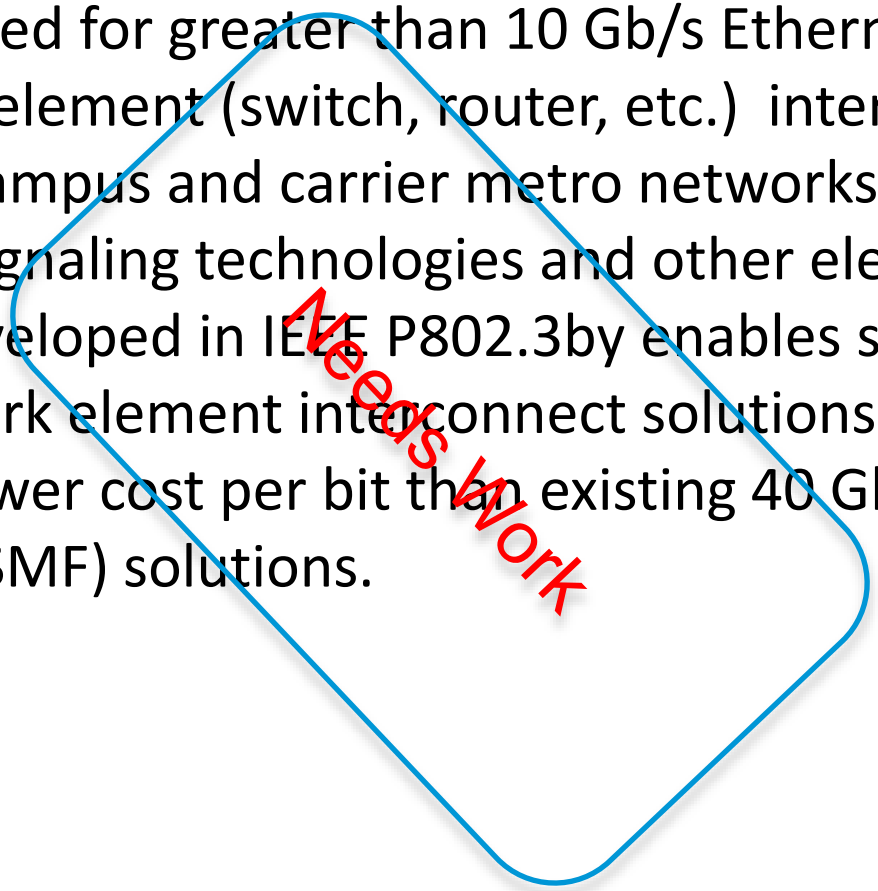
5.2 Scope (a) & (b)

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 add single mode fiber Physical Medium Dependent (PMD) options for serial 25Gb/s operation by specifying additions to, and appropriate modifications of, IEEE Std 802.3-2015 as amended by the IEEE P802.3by project (and any other approved amendment or corrigendum).

5.5 Need for the Standard

- There is a need for greater than 10 Gb/s Ethernet connectivity for network element (switch, router, etc.) interconnect in enterprise campus and carrier metro networks. The availability of 25 Gb/s signaling technologies and other elements for 25Gb/s Ethernet developed in IEEE P802.3by enables single mode fiber (SMF) network element interconnect solutions to be developed, which are lower cost per bit than existing 40 Gb/s Ethernet single mode fiber(SMF) solutions.



Other PAR Fields (2)

5.6 Stakeholders for the Standard: Users and producers of systems and components for enterprise campus and carrier metro Ethernet networks.

6.1 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: No.

8.1 Additional Explanatory Notes (Item Number and Explanation) :

This amendment will comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q

Thank you.

Backup

Next Steps slide for Atlanta.

- Straw Poll on PAR contents.
- If it passes, SG or WG Chair to transfer this text into the IEEE PAR tool, and bring back to the group for review.

5.2 Scope (a) & (b) – first version

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: This amendment defines physical layer specifications and management parameters for the transfer of Ethernet format frames at 25 Gb/s using single mode fiber (SMF).

Thank you.