

Proposed PAR

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IEEE 802.3 400 Gb/s Ethernet Study Group

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Introduction

- The attached slides are intended as a strawman for the IEEE P802.3bs Project Authorization Request

P802.3bs

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Type of Project: Amendment to IEEE Standard 802.3-2012

PAR Request Date: 17-May-2013

PAR Approval Date:

PAR Expiration Date:

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

1.1 Project Number: P802.3bs

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Ethernet Amendment: Media Access Control Parameters, Physical Layers and Management Parameters for 400 Gb/s Operation

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)

Contact Information for Sponsor Chair

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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: 03/2016

4.3 Projected Completion Date for Submittal to RevCom: 02/2017

5.1 Approximate number of people expected to be actively involved in the development of this project: 100

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: Define 802.3 Media Access Control (MAC) parameters, physical layer specifications, and management parameters for the transfer of 802.3 format frames at 400 Gb/s.

5.3 Is the completion of this standard dependent upon the completion of another standard:

5.4 Purpose: This document will not include a purpose clause.

5.5 Need for the Project: The project is necessary to provide a solution for those network aggregation applications that have demonstrated to need bandwidth beyond the existing capabilities. These include, but are not limited to, data center, internet exchanges, co-location providers, wireless back haul, service providers, and video-on-demand delivery.

5.6 Stakeholders for the Standard: Stakeholders identified to date includes but are not limited to: internet exchanges, colocation providers, telecommunications carriers, and multiple system operators (MSOs). Given the aggregation nature of this project, in-direct stakeholders will include users and producers of systems and components for servers, network storage, networking systems, and high performance computing.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?:

6.1.b. Is the Sponsor aware of possible registration activity related to this project?:

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):

PROPOSED PAR