IEEE 802.3 Working Group
November 2018 Plenary Week

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Web site: www.ieee802.org/3

Current IEEE 802.3 activities

IEEE 802.3 Task Forces
>   IEEE P802.3ca 25 Gb/s, 50 Gb/s, and 100 Gb/s Ethernet Passive Optical Networks Task Force
>   IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet Task Force
>   IEEE P802.3.2 (IEEE 802.3cf) YANG Data Model Definitions Task Force
>   IEEE P802.3cg 10 Mb/s Single Pair Ethernet Task Force
>   IEEE P802.3ch Multi-Gig Automotive Ethernet PHY Task Force
>   IEEE P802.3ck 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces Task Force
>   IEEE P802.3cm 400 Gb/s over Multimode Fiber Task Force
>   IEEE P802.3cn 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s over Single-Mode Fiber and DWDM Task Force
>   IEEE P802.3cq Power over Ethernet over 2 Pairs (Maintenance #13) Task Force
>   IEEE P802.3cr Isolation (Maintenance #14) Task Force

IEEE 802.3 Study Group
>   IEEE 802.3 Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs Study Group
>   IEEE 802.3 Physical Layers for increased-reach Ethernet optical subscriber access (Super-PON) Study Group

IEEE 802.3 Call for Interest
>   IEEE 802.3 100 Gb/s Lambda Call for Interest

IEEE 802.3 Industry Connection activity
>   IEEE 802.3 New Ethernet Applications Ad Hoc

IEEE 802.3 Maintenance

Meeting plan

Consider new maintenance requests

Review status of outstanding maintenance requests

ISO/IEC JTC1 SC6 adoptions under PSDO agreement

Submission of IEEE 802.3 drafts for review

Submission of IEEE 802.3 standards for adoption

Respond to any comments on adoption of IEEE 802.3 standards

Consider any other maintenance business

Web page

http://www.ieee802.org/3/maint/index.html

IEEE P802.3ca 25 Gb/s and 50 Gb/s Passive Optical Networks Task Force

Description

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.

Web site: <http://www.ieee802.org/3/ca/index.html>

Status

Last met during the September 2018 interim meeting series

Draft D1.3 sent out for 4th Task Force review

Completed PAR modification request (see below for details)

Meeting plan

Consideration of comments received against draft D1.3

Continue work towards technically complete draft for working group ballot

Seek approval for PAR modification request submission to NesCom

IEEE P802.3.2 (IEEE 802.3cf) YANG Data Model Definitions Task Force

Description

Define YANG data models for IEEE Std 802.3 Ethernet.

Web site: <http://ieee802.org/3/cf/index.html>

Status

Last met during the September 2018 interim meeting series

Draft D3.0 sent out for Initial sponsor ballot

Meeting plan

Consideration of comments received against draft D3.0

IEEE P802.3cg 10 Mb/s Single Pair Ethernet Task Force

Description

Define additions to and appropriate modifications of IEEE Std 802.3 to add 10 Mb/s Physical Layer (PHY) specifications and management parameters for operation, and associated optional provision of power, using a single balanced pair of conductors.

Web site: <http://ieee802.org/3/cg/index.html>

Status

Last met during the September 2018 interim meeting series

Draft D2.1 sent out for 1st Working Group recirculation ballot

Meeting plan

Consideration of comments received against draft D2.1

IEEE P802.3ch Multi-Gig Automotive Ethernet Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 to add greater than 1 Gb/s Physical Layer (PHY) specifications and management parameters for media and operating conditions for applications in the automotive environment

Web site: <http://www.ieee802.org/3/ch/index.html>

Status

Last met during a September 2018 Task Force interim

Draft D0.6 sent out for 2nd Task Force review

Meeting plan

Consideration of comments received against draft D0.6

Continue work towards technically complete draft for working group ballot

IEEE P802.3ck 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces Task Force

Description

This project is to specify additions to and appropriate modifications of IEEE Std 802.3 to add Physical Layer specifications and Management Parameters for 100 Gb/s, 200 Gb/s, and 400 Gb/s electrical interfaces based on 100 Gb/s signaling.

Web site: <http://ieee802.org/3/ck/index.html>

Status

Last met during the September 2018 interim meeting series

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

IEEE P802.3cm 400 Gb/s over Multimode Fiber Task Force

Description

Define Physical Layer specifications (PHY) and management parameters for the transfer of Ethernet format frames at 400 Gb/s over fewer than 16 pairs of multimode fiber physical media

Web site: <http://ieee802.org/3/cm/index.html>

Status

Last met during the September 2018 interim meeting series

Draft D1.0 sent out for 1st Task Force review

Meeting plan

Consideration of comments received against draft D1.0

Continue work towards technically complete draft for working group ballot

IEEE P802.3cn 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s over SMF and DWDM Task Force

Description

Define physical layer specifications and management parameters for the transfer of Ethernet format frames at 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s at reaches greater than 10 km over single-mode fiber and DWDM systems. Make TDECQ (Transmitter and dispersion eye closure for PAM4) related changes to existing 200 Gb/s and 400 Gb/s physical medium dependent sublayers over single-mode fiber.

Web site: <http://ieee802.org/3/cn/index.html>

Status

This will be the first meeting of the IEEE P802.3cn Task Force

Meeting plan

Start work on selection of a set of baseline proposals

IEEE P802.3cq Power over Ethernet over 2 Pairs (Maintenance #13) Task Force

Description

This project will implement editorial and technical corrections, refinements, and clarifications to Clause 33, Power over Ethernet over 2 pairs, and related portions of the standard. No new features will be added by this project.

Web site: <http://ieee802.org/3/cq/index.html>

Status

This will be the first meeting of the IEEE P802.3cq Task Force

Meeting plan

Start work on selection of a set of baseline proposals

IEEE 802.3cr Isolation (Maintenance #14) Task Force

Description

Replace references to the IEC 60950 series of standards (including IEC 60950-1 "Information technology equipment - Safety - Part 1: General requirements") with appropriate references to the IEC 62368 "Audio/video, information and communication technology equipment" series and make appropriate changes to the standard corresponding to the new references.

Web site: <http://ieee802.org/3/cr/index.html>

Status

This will be the first meeting of the IEEE P802.3cr Task Force

Meeting plan

Start work on selection of a set of baseline proposals

IEEE 802.3 Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Bidirectional 10 Gb/s, 25 Gb/s and 50 Gb/s Optical Access PHYs

Web site: <http://www.ieee802.org/3/NGBIDI/index.html>

Status

First meeting during the September 2018 interim meeting series

Completed draft objectives, CSD and PAR for proposed project

Meeting plan

Progress approval of objectives, CSD and NesCom submittal of PAR for IEEE P802.3cp Standard for Ethernet Amendment: Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs

IEEE 802.3 Physical Layers for increased-reach Ethernet optical subscriber access (Super-PON) Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Ethernet Physical Layer specifications for optical subscriber access supporting point-to-multipoint operations using wavelength division multiplexing over an increased-reach passive optical network (PON).

Web site: <http://www.ieee802.org/3/SUPER_PON/index.html>

Status

Met during the September 2018 interim meeting series

Completed draft objectives, CSD and PAR for proposed project

Meeting plan

Progress approval of objectives, CSD and NesCom submittal of PAR for IEEE P802.3cs Physical Layers and management parameters for increased-reach point-to-multipoint Ethernet optical subscriber access (Super-PON)

IEEE 802.3 100 Gb/s Lambda Call for Interest

Ethernet has a successful track record of reusing and leveraging technology in order to enable new cost-optimized solutions for broad market adoption. Recently, both the IEEE 802.3bs and IEEE 802.3cd Ethernet projects defined optical interfaces based on 100 Gb/s PAM4 per lane optics for 500m reaches on single-mode fiber. This technology enables a lower component count implementation that can lead towards a lower cost solution.

The successful industry adoption of 100 GbE is resulting in higher volumes and continuing cost pressures on optical interfaces and the hyper-scale data centers, being aggressive adopters of cost-effective solutions, are looking to enable the next generation of lower cost solutions for 400 Gb/s Ethernet interfaces.

At this time, no IEEE 802.3 Ethernet specifications exist for greater than 500m reaches on single-mode fiber using this advanced technology. This Call For Interest is a request for the formation of a Study Group to explore the potential market requirements and feasibility of extending 100 Gb/s PAM4 per lane optical technology to longer 100 Gb/s and 400 Gb/s Ethernet reaches.

The request for agenda time for this CFI was received from Mark Nowell <mnowell@cisco.com>

IEEE 802.3 New Ethernet Applications (NEA) Ad Hoc

Description

The goal of this activity is to assess requirements for new Ethernet-based applications, identify gaps not currently addressed by IEEE 802.3 standards, and facilitate building industry consensus towards proposals to initiate new standards development efforts

Web site: <http://ieee802.org/3/ad_hoc/ngrates/index.html>

Status

Last met during the September 2018 interim meeting series

Meeting plan

Three sessions on Tuesday evening

Switching Latency

Automotive Optical Multi Gigabit

Ethernet Bandwidth Assessment (BWA)

Meeting on Wednesday morning

Progress approval of new Industry Connections Initiation document (ICAID) and ICCom submittal for the IEEE 802.3 New Ethernet Applications Industry Connections activity to extend this activity for a further two years

IEEE 802.3 Officers

IEEE 802.3 Chair: David Law <dlaw@hpe.com>

IEEE 802.3 Vice Chair: Adam Healey <adam.healey@broadcom.com>

IEEE 802.3 Secretary: Pete Anslow <panslow@ciena.com>

IEEE 802.3 Executive Secretary: Steve Carlson <scarlson@ieee.org>

IEEE 802.3 Treasurer: Valerie Maguire <valerie_maguire@siemon.com>

IEEE 802.3 Task Force chairs

IEEE P802.3bt DTE Power via MDI over 4-Pair: Chad Jones <cmjones@cisco.com>

IEEE P802.3ca 25 Gb/s, 50 Gb/s, and 100 Gb/s EPON: Curtis Knittle <c.knittle@cablelabs.com>

IEEE P802.3cb 2.5 Gb/s and 5 Gb/s Backplane Cables: Dan Smith <daniel.f.smith@seagate.com>

IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet: Mark Nowell <mnowell@cisco.com>

IEEE P802.3.2 (IEEE 802.3cf) YANG Data Model: Yan Zhuang <zhuangyan.zhuang@huawei.com>

IEEE P802.3cg 10 Mb/s Single Pair Ethernet: George Zimmerman <george@cmephyconsulting.com>

IEEE P802.3ch Multi-Gig Automotive Ethernet PHY: Steve Carlson <scarlson@ieee.org>

IEEE P802.3ck 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces: Elizabeth Kochuparambil <edonnay@cisco.com>

IEEE P802.3cm 400 Gb/s over Multimode Fiber: Robert Lingle <rlingle@ofsoptics.com>

IEEE P802.3cn 50Gb/s, 100Gb/s, 200Gb/s, and 400Gb/s over SMF and DWDM Task Force (acting): John D'Ambrosia <jdambrosia@ieee.org>

IEEE P802.3cq Power over Ethernet over 2 Pairs (Maintenance #13) Task Force (acting): Chad Jones <cmjones@cisco.com>

IEEE P802.3cr Isolation (Maintenance #14) Task Force (acting): Jon Lewis <jon_lewis@dell.com>

IEEE 802.3 Study Group chairs

IEEE 802.3 Bidirectional 10 Gb/s, 25 Gb/s and 25 Gb/s Optical Access PHYs: Frank Effenberger <frank.effenberger@huawei.com>

IEEE 802.3 Ethernet Access PMDs for Central Office Consolidation (Super-PON): Claudio DeSanti <cdssdc@google.com>

Preliminary IEEE 802.3 Meeting Plan
Always check on-line schedule for latest updates

AM

IEEE 802.3 Opening Plenary	IEEE P802.3cg IEEE P802.3ch IEEE P802.3.2 IEEE P802.3cm IEEE P802.3cn IEEE P802.3cq

NEA IEEE P802.3ca IEEE P802.3cg IEEE P802.3ch IEEE P802.3ck	IEEE P802.3ca IEEE P802.3cg IEEE P802.3ck IEEE P802.3cr

PM

IEEE P802.3cg IEEE P802.3.2 IEEE P802.3cn IEEE P802.3cm IEEE P802.3cq	PAR review ad hoc IEEE P802.3ca IEEE P802.3cg IEEE P802.3ch IEEE P802.3ck IEEE P802.3cn IEEE P802.3cq	Maintenance IEEE P802.3ca IEEE P802.3cg IEEE P802.3ch IEEE P802.3ck BIDIR SG Super-PON SG	IEEE 802.3 Closing Plenary

100 Gb/s Lambda CFI

NEA: Switching Latency

NEA: Automotive Optical Multi Gigabit

NEA: Ethernet BWA

BIDIR SG: IEEE 802.3 Bidirectional 10 Gb/s, 25Gb/s and 50 Gb/s Optical Access PHYs Study Group
Super-PON SG: Ethernet Access PMDs for Central Office Consolidation (Super-PON) Study Group
NEA: IEEE 802.3 New Ethernet Applications Industry Connections Activity Ad Hoc