

IEEE 802.3 Working Group March 2024 Plenary Session

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Web site: www.ieee802.org/3

Current IEEE 802.3 activities

IEEE 802.3 Task Forces

- IEEE P802.3cw 400 Gb/s over DWDM systems
- IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement
- IEEE P802.3dg 100 Mb/s Long-Reach Single Pair Ethernet
- IEEE P802.3dj 200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/s Ethernet
- IEEE P802.3dk Greater than 50 Gb/s Bidirectional Optical Access PHYs
- IEEE P802.3.1 (IEEE 802.3.1b) SMIv2 Data Models (Revision)
- IEEE P802.3.2 (IEEE 802.3.2a) YANG Data Model (Revision)
- IEEE P802.3-2022/Cor 1 (IEEE 802.3dn) Multi-Gigabit Automotive MDI return loss

IEEE 802.3 Study Group

- IEEE 802.3 Ethernet for Automotive Imaging Sensors Study Group

IEEE 802.3 Ad Hoc

- IEEE 802.3 New Ethernet Applications
- IEEE 802.3 Power Distribution Coordinating Committee (PDCC)

IEEE 802.3 Maintenance

Description

Maintenance of the IEEE 802.3 standards are performed by the IEEE 802.3 Maintenance Task Force.

Plan

Consider new maintenance requests

Review status of outstanding maintenance requests

Consider any other maintenance business

Web page

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

IEEE P802.3cw 400 Gb/s over DWDM Systems Task Force

Description

Define physical layer specifications and management parameters for the transfer of Ethernet format frames at 400 Gb/s at reaches greater than 10 km over DWDM systems.

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

Status

Initial Standards Association ballot of IEEE P802.3cw draft D3.0 closed on 18 January 2024

Due to a lack of volunteers willing to contribute to developing proposed responses to the submitted comments there has been no progress towards considering the comment received

Proposal by IEEE P802.3cw Chair on reflector to withdraw PAR received no objection

Meeting Plan

Progress PAR withdraw request

IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Task Force

Description

Specify additions and modifications of the Physical Layer (including reconciliation sublayers), management parameters, Ethernet support for time synchronization protocols, and optional power delivery supporting multiple powered devices on the 10 Mb/s mixing segment.

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

Status

Initial Task Force review of IEEE P802.3da draft D1.0 closed on 14 January 2024

Consideration of comments received during Initial Task Force review started

Meeting plan

Continue consideration of comments received during Initial Task Force review

IEEE P802.3dg 100 Mb/s Long-Reach Single Pair Ethernet Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 to add 100 Mb/s Physical Layer specifications and management parameters for operation, and associated optional provision of power, using a single balanced pair of conductors

Web site: <https://ieee802.org/3/dg/index.html>

Status

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

IEEE P802.3dj 200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/s Ethernet Task Force

Description

Define Ethernet MAC parameters for 1.6 Tb/s. Define physical layer specifications, and management parameters for the transfer of Ethernet format frames at 800 Gb/s and 1.6 Tb/s over copper and single-mode fiber physical medium dependent (PMD) sublayers based on 200 Gb/s or greater per lane signaling technologies. Using these new definitions for 800 Gb/s and 1.6 Tb/s, define physical layer specifications and management parameters for the transfer of Ethernet format frames at 200 Gb/s and 400 Gb/s, when applicable.

Web site: <https://ieee802.org/3/dj/index.html>

Status

Majority of baseline proposals to satisfy project objectives adopted

New 20 km single-mode fiber (SMF) objective added

Meeting plan

Continue to work on selection of a set of baseline proposals

Prepare to proceed to initial Task Force Review

IEEE P802.3dk Greater than 50 Gb/s Bidirectional Optical Access PHYs Task Force

Description

Define physical layer specifications and management parameters for symmetric bidirectional operation at greater than 50 Gb/s over a single strand of single mode fiber of at least 10 km.

Web site: <https://ieee802.org/3/dk/index.html>

Status

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

IEEE P802.3.1 (IEEE 802.3.1b) SMIv2 Data Models (Revision)

Description

This revision is to address accumulated maintenance changes as well as appropriate updates to the IEEE Std 802.3.1 Structure of Management Information version 2 (SMIv2) MIB modules to support IEEE Std 802.3 amendments published since IEEE Std 802.3.1 was last revised in 2013.

Web site: <https://ieee802.org/3/1/b/index.html>

Status

First Working Group recirculation ballot of IEEE 802.3.1b draft D1.1 closes 27 February 2024

Meeting plan

Consideration of comments received during first Working Group recirculation ballot

IEEE P802.3.2 (IEEE 802.3.2a) YANG Data Model (Revision)

Description

This revision is to address accumulated maintenance changes as well as appropriate updates to the IEEE Std 802.3.2 YANG modules to support IEEE Std 802.3 amendments published since IEEE Std 802.3.2 was first published.

Web site: <https://ieee802.org/3/2/a/index.html>

Status

Initial Working Group ballot of IEEE 802.3.2a draft D1.0 closed 20 December 2023

All comments considered during January 2024 interim meeting series

Draft D1.1 in preparation for First Working Group recirculation ballot

Meeting plan

IEEE P802.3.2 (IEEE 802.3.2a) Task Force not planning to meet

IEEE P802.3-2022/Cor 1 (IEEE 802.3dn) Multi-Gigabit Automotive MDI return loss

Description

This corrigendum is to make corrections to MDI return loss Equations (149–27) and (165–42) and to Figure 165–38 ‘MDI return loss calculated limit in Equation (165–42)’.

Web site: <https://ieee802.org/3/dn/index.html>

Status

IEEE P802.3-2022/Cor 1 (IEEE 802.3dn) PAR approved on 15 February 2024

Initial Task Force meeting occurred on 21 February 2024

Meeting plan

Seek approval to proceed to Working Group ballot

IEEE 802.3 Ethernet for Automotive Imaging Sensors Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for an electrical physical layer specification and related functionality of a client optimized for automotive end-node cameras

Web site: <https://ieee802.org/3/ISAAC/index.html>

Status

The Study Group has completed development of the IEEE P802.3dm Physical Layer Specifications and Management Parameters for Asymmetrical Electrical Automotive Ethernet draft PAR, as well as supporting draft CSD and draft objectives

Draft PAR: <https://mentor.ieee.org/802-ec/dcn/24/ec-24-0014-01-00EC-draft-ieee-p802-3dm-par.pdf>

Draft CSD: <https://mentor.ieee.org/802-ec/dcn/24/ec-24-0015-01-00EC-draft-ieee-p802-3dm-csd.pdf>

Draft objectives: https://www.ieee802.org/3/ISAAC/public/0324/Objectives_ISAAC_01_0324.pdf

Meeting plan

Progress the necessary IEEE P802.3dm draft PAR, CSD and objectives approvals

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

No meetings held since November 2023 plenary session

Meeting plan

One meeting to discuss Ethernet architectural support for precision timestamping

IEEE 802.3 Power Distribution Coordinating Committee (PDCC) Ad Hoc

Description

Review output and build consensus on draft input for liaisons regarding power delivery over cabling cited in IEEE 802.3 standards and projects, e.g.:

- Build consensus on responses to public input proposals received as part of the next edition of NFPA70; and consider any other NFPA related items of interest, such as proposed Tentative Interim Amendments (TIA)

- Build consensus on draft input to IEC TC64/PT716, and proposed direction of the IEEE 802.3 Category C liaison expert

- Build consensus on draft input to IEC TC108/PT63315, and proposed direction of the IEEE 802.3 Category C liaison expert

Web site: https://ieee802.org/3/ad_hoc/PDCC/index.html

Meeting plan

Continue review of ITU-T K.117 'Primary protector parameters for the surge protection of equipment Ethernet ports' and ITU-T K.147 'Protection of digital ports connected to balanced pairs of conductors' to prepare comments to submit in response to the ITU-T SG5 Q2/5 work items to revise these recommendations

IEEE 802.3 Officers, Subgroup Chairs and Vice-Chairs

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IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement: Chad Jones <cmjones@cisco.com>

IEEE P802.3df 400 Gb/s and 800 Gb/s Ethernet: John D'Ambrosia <jdambrosia@ieee.org>

IEEE P802.3dg 100 Mb/s Long-Reach Single Pair Ethernet: George Zimmerman <george@cmephyconsulting.com>

IEEE P802.3dj 200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/s Ethernet: John D'Ambrosia <jdambrosia@ieee.org>

IEEE P802.3dk Greater than 50 Gb/s Bidirectional Optical Access PHYs: Yuanqiu Luo <yuanqiu.luo@futurewei.com>

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IEEE P802.3.2 (IEEE 802.3.2a) YANG Data Model (Revision) Marek Hajduczenia <mxhajduczenia@gmail.com>

IEEE P802.3-2022/Cor 1 (IEEE 802.3dn) Multi-Gigabit Automotive MDI return loss Brett McClellan <bmc@marvell.com>

IEEE 802.3 Study Group chair

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IEEE P802.3df 400 Gb/s and 800 Gb/s Ethernet: Mark Nowell <mnowell@cisco.com>

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