IEEE 802.3 Working Group
July 2025 Plenary Session

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Web site: www.ieee802.org/3

Current IEEE 802.3 activities

IEEE 802.3 Task Forces

- 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 P802.3dm Asymmetrical Electrical Automotive Ethernet
- IEEE P802.3dp Cabling Restrictions for Single Pair Power over Ethernet
- IEEE Std 802.3-2022/Cor 2 (IEEE 802.3dr) Optical Automotive Ethernet TDFOM
- IEEE P802.3.2 (IEEE 802.3.2a) Revision to IEEE Std 802.3.2-2019 YANG Data Model Definitions

IEEE 802.3 Study Group

- IEEE 802.3 Pin-Optimized PHY Interface
- IEEE 802.3 200 Gb/s per wavelength Multimode Fibre optical PHYs
- IEEE 802.3 Ethernet Metadata Services

IEEE 802.3 Ad Hocs

- IEEE 802.3 New Ethernet Applications
  - IEEE 802.3 New Ethernet Applications Ad Hoc Ethernet for AI Assessment
- IEEE 802.3 Power Distribution Coordinating Committee (PDCC)
- IEEE 802.3 Channel Operating Margin (COM) Open Source Project
- IEEE 802.3 YANG Open Source Project Ad Hoc

IEEE 802.3 Maintenance

Progress

- Did not meet due to overlapping time commitments of potential attendees
- Approval to submit IEEE Std 802.3-2022 revision two-year extension request
  - Request will be considered at September 2025 IEEE SA Review Committee (RevCom) meeting

Web page

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

Maintenance closing report

- Did not meet during plenary session

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

Progress

Granted approval to proceed to Standards Association ballot

Next steps

Conduct initial Standards Association ballot of IEEE P802.3da draft D3.0

Task Force closing report

https://www.ieee802.org/3/minutes/jul25/802d3da_task_force_close_report_0725.pdf

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

Progress

Granted approval to proceed to Working Group ballot

Next steps

Conduct initial Working Group ballot of IEEE P802.3dg draft D2.0

Task Force closing report

https://www.ieee802.org/3/minutes/jul25/802d3dg_close_report_Jul2025.pdf

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

Progress

Considered all IEEE P802.3dj draft D2.0 initial Working Group ballot comments

Approved generation of IEEE P802.3dj draft D2.1 for first Working Group recirculation ballot

Generated liaisons regarding copper MDIs to SFP-DD MSA and SNIA/SFF

Approved liaising IEEE P802.3dj draft D2.1

Next steps

Conduct the first Working Group recirculation ballot of IEEE P802.3dj draft D2.1

Task Force closing report

https://www.ieee802.org/3/minutes/jul25/2507_3dj_closed_report.pdf

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

Progress

Considered all IEEE P802.3dk draft D2.3 third Working Group recirculation ballot comments

- No substantive changes to the IEEE P802.3dk draft due to comment resolution

Received approval to progress IEEE P802.3dk draft D3.0 to Standards Association ballot

Next steps

Conduct IEEE P802.3dk draft D3.0 initial Standards Association ballot

Task Force closing report

https://www.ieee802.org/3/minutes/jul25/802d3dk_Task_Force_close_report_final.pdf

IEEE P802.3dm Asymmetrical Electrical Automotive Ethernet Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 to add Physical Layer specifications and management parameters for electrical media and operating conditions that are optimized for automotive end-node camera links for operation up to 10 Gb/s in one direction and with a lower data rate in the other direction

Web site: https://ieee802.org/3/dm/index.html

Progress

Heard 25 contributions

New baselines and text for Clause 30 and Clause 45 were approved

Straw polls were conducted to gauge the group's "temperature“

A 75% consensus for either duplexing method is still lacking

Next steps

Continue towards baseline selection to satisfy the project objectives

Task Force closing report

https://www.ieee802.org/3/minutes/jul25/802d3dm_TF_close_report.pdf

IEEE P802.3dp Cabling Restrictions for Single Pair Power over Ethernet Task Force

Description

Specify requirements and restrictions for supporting the IEEE 802.3 ‘plug-and-play’ interoperability model for Single-Pair Power over Ethernet (SPoE) due to current carrying capacity limitations in cabling

Web site: https://ieee802.org/3/dp/index.html

Progress

Did not meet during plenary session

Next steps

Continue towards baseline selection to satisfy the project objectives

IEEE Std 802.3-2022/Cor 2 (IEEE 802.3dr) Optical Automotive Ethernet TDFOM Task Force

Description

Corrections to the Transmitter Distortion Figure of Merit (TDFOM) normalization factors specified in Table 166–16

Web site: https://ieee802.org/3/dr/index.html

Progress

Heard one contribution on TDFOM normalization

Approved generation of the first corrigendum draft

Next steps

Continue towards technically complete draft for Working Group ballot

Task Force closing report

https://www.ieee802.org/3/minutes/jul25/802d3dr_task_force_closing_report_01_0725.pdf

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

Description

This revision is to addresses 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

Progress

Did not meet during plenary session

Approval granted to proceed to RevCom submittal

Next steps

Progress ratification of IEEE P802.3.2 YANG Data Model as an IEEE standard

IEEE 802.3 Pin-Optimized PHY Interface Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Ethernet Media Independent Interfaces (MII) optimized for an exposed interconnect

Web site: https://www.ieee802.org/3/POPI/index.html

Progress

IEEE P802.3dq objectives approved by IEEE 802.3 Working Group

Objectives: https://ieee802.org/3/POPI/POPI_DRAFT_Objectives_2025-06-18_v01.pdf

IEEE P802.3dq Criteria for Standard Development (CSD) approved by IEEE 802 LMSC

CSD: https://mentor.ieee.org/802-ec/dcn/25/ec-25-0128-02-LMSC-ieee-p802-3dq-draft-csd.pdf

Approval granted to submit to IEEE P802.3dq draft PAR to NesCom for approval

Draft PAR: https://mentor.ieee.org/802-ec/dcn/25/ec-25-0127-02-LMSC-ieee-p802-3dq-draft-par.pdf

Next Steps

Progress approval of IEEE P802.3dq Optimized PHY Interface PAR

Closing report

https://www.ieee802.org/3/minutes/jul25/POPI_Plenary_Closing_Report_2025-07-31_v02.pdf

IEEE 802.3 200 Gb/s per wavelength Multimode Fibre optical PHYs call for interest

Progress

- 200 Gb/s per wavelength Multimode Fiber (MMF) optical PHYs call for interest considered
- Approval of formation of an IEEE 802.3 PAR Study Group to develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for 200 Gb/s per wavelength Multimode Fibre (MMF) optical PHYs

Next steps

- Start development of PAR, CSD responses and objectives

Call for Interest closing report

- https://ieee802.org/3/minutes/jul25/0725_200GMMF_CFI_close_report.pdf

IEEE 802.3 Ethernet Metadata Services call for interest

Progress

- Ethernet Metadata Services call for interest considered
- Approval of formation of an IEEE 802.3 PAR Study Group to to develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Ethernet Metadata Services

Next steps

- Start development of PAR, CSD responses and objectives

Call for Interest closing report

- https://ieee802.org/3/minutes/jul25/2025-07-ems-plenary-closing-report.pdf

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

Progress

Did not meet during plenary session

Approval of status report to the IEEE SA Industry Connections Committee (ICCom)

https://mentor.ieee.org/802-ec/dcn/25/ec-25-0163-00-LMSC-ic15-005-nea-icaid-status-report.pdf

Next Steps

Future Meetings

See IEEE 802.3 Call and Meeting Calendar

Closing report

https://ieee802.org/3/minutes/jul25/0725_NEA_close_report.pdf

IEEE 802.3 New Ethernet Applications Ad Hoc
Ethernet for AI Assessment

Description

The goal of this activity is an assessment of "Ethernet Interconnect for AI" with an emphasis on beyond 200 Gb/s signalling

Web site: https://www.ieee802.org/3/ad_hoc/E4AI/index.html

Progress

Did not meet during plenary session

Next Steps

Future Meetings

See IEEE 802.3 Call and Meeting Calendar

Initial summary of findings to be presented at the 19 August 2025 meeting

IEEE 802.3 Channel Operating Margin (COM) Open Source Project Ad Hoc

Description

Reference software code implementations and configuration spreadsheets of the Channel Operating Margin (COM) equations and methods in IEEE Std. 802.3 and Amendments (e.g. Annex 93A and 178A). It will also provide branch support to enable participants to development new features and new capabilities for use by industry.

Web site: https://www.ieee802.org/3/ad_hoc/COM/

Progress

Did not meet during plenary session

Accepted 7 change requests against COM v4.9 and released v4.10

Ad hoc leadership team transition

- Howard Heck, IEEE 802.3 COM ad hoc Chair
- Kent Lusted, IEEE 802.3 COM ad hoc Vice-Chair
- Howard Heck, 802-COM Open Source Project Lead/POC
- Kent Lusted, 802-COM alternate Open Source project lead
- Adam Healey, 802-COM alternate OS project lead (unchanged)

Next Steps

Continue to consider submitted change requests

Closing report

https://ieee802.org/3/minutes/jul25/0725_COM_ad_hoc_closing_report.pdf

IEEE 802.3 YANG OS Project Ad Hoc

Description

Consider potential paths for moving IEEE 802.3 YANG into IEEE OSCOM open-source

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

Progress

Held one meeting during plenary session

Discussion topics included: FAQ & Guidelines document; future meetings (e.g., not planning to meet at 802.3 interims); access to IEEE 802.3 drafts for people outside the current IEEE 802.3 community; relationship to IEEE 802 YANGsters; and sharing documents using GoogleApps@IEEE

Next Steps

Continue consider of paths to move IEEE 802.3 YANG into IEEE OSCOM open-source

Closing report

https://ieee802.org/3/minutes/jul25/yang_closing_report_073025.pdf

IEEE 802.3 Officers, Subgroup Chairs and Vice-Chairs

IEEE 802.3 Chair: David Law <dlaw@hpe.com>
IEEE 802.3 Vice Chair: Adam Healey <adam.healey@broadcom.com>
IEEE 802.3 Secretary: Jon Lewis <jon.lewis@dell.com>
IEEE 802.3 Executive Secretary: Chad Jones <cmjones@cisco.com>
IEEE 802.3 Treasurer: Valerie Maguire <vmaguire@ieee.org>

IEEE 802.3 Task Force chairs

IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement: Chad Jones <cmjones@cisco.com>
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>
IEEE P802.3dm Asymmetrical Electrical Automotive Ethernet (Chair pro tem): Natalie Wienckowski <natalie@ivnsolutionsllc.com>
IEEE P802.3dp Cabling Restrictions for Single Pair Power over Ethernet Chad Jones <cmjones@cisco.com>
IEEE Std 802.3-2022/Cor 2 (IEEE 802.3dr) Optical Automotive Ethernet TDFOM Luisma Torres <luismanuel.torres@kdpof.com>
IEEE P802.3.2 (IEEE 802.3.2a) YANG Data Model (Revision) Marek Hajduczenia <mxhajduczenia@gmail.com>

IEEE 802.3 Study Group chair

IEEE 802.3 IEEE 802.3 Pin-Optimized PHY Interface: Jason Potterf <jpotterf@cisco.com>
IEEE 802.3 200 Gb/s per wavelength Multimode Fibre optical PHYs (Chair pro tem): Mabud Choudhury <mabudchoudhury@gmail.com>
IEEE 802.3 Ethernet Metadata Services (Chair pro tem): David Ofelt <ofelt@ieee.org>

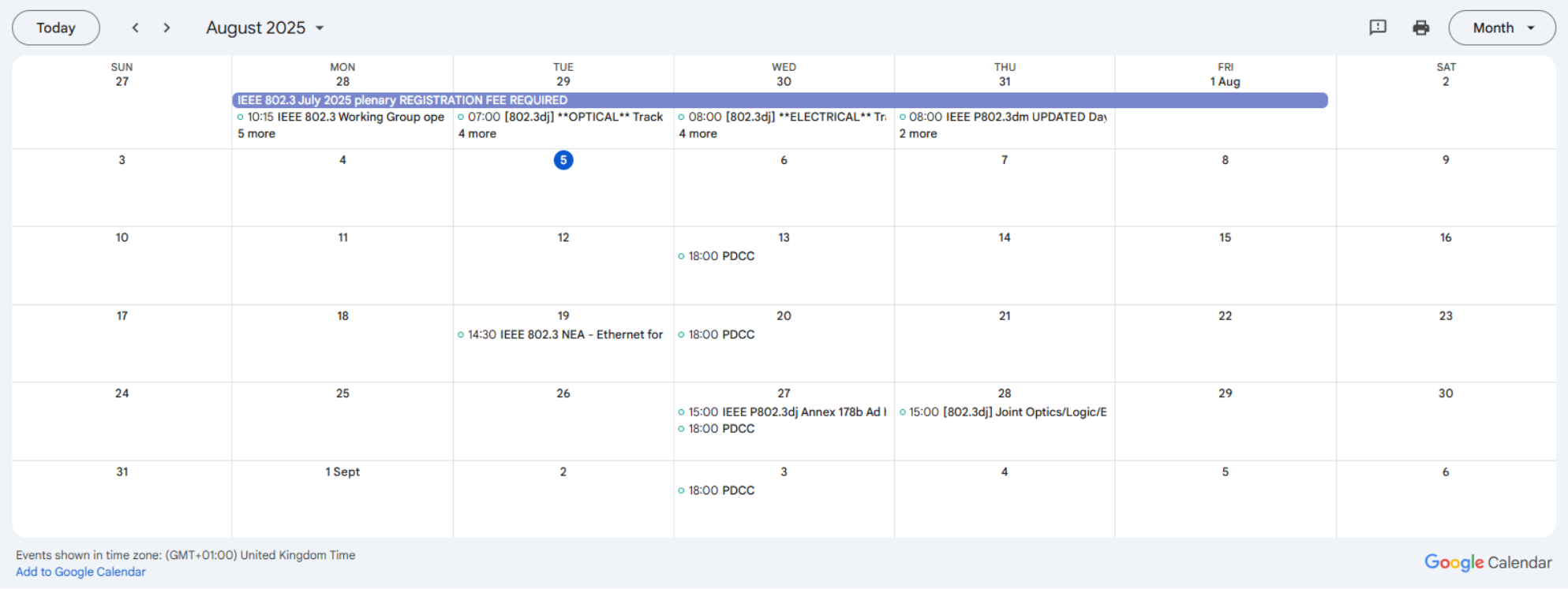
IEEE 802.3 Task Force vice-chair

IEEE P802.3dj 200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/s Ethernet: Mark Nowell <mnowell@cisco.com>

Upcoming meetings

Please see http://www.ieee802.org/3/calendar.html for latest calendar of meetings

NOTE: Calendar set to detected computer time zone: Europe/London



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