

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 802.3 Maintenance

IEEE P802.3cw 400 Gb/s over DWDM systems

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

IEEE P802.3df 400 Gb/s and 800 Gb/s Ethernet

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) Revision to IEEE Std 802.3.1-2013 Ethernet MIBs

IEEE P802.3.2 (IEEE 802.3.2a) Revision to IEEE Std 802.3.2-2019 YANG Data Model Definitions

IEEE Std 802.3-2022/Cor 1 (IEEE 802.3dn) Multi-Gigabit Automotive MDI Return Loss

IEEE 802.3 Study Group

IEEE 802.3 Improved Support of Asymmetric Applications for Cameras (ISAAC)

IEEE 802.3 Ad Hoc

IEEE 802.3 Power Distribution Coordinating Committee (PDCC)

IEEE 802.3 Maintenance

Progress

Maintenance requests

- Reviewed three new maintenance requests

- Reviewed status of outstanding maintenance requests

ISO/IEC JTC 1/SC 6 adoptions

- ISO/IEC JTC 1/SC 6 committee internal ballot (CIB) of IEEE Std 802.3-2022 closes 17 April 2024

Web page

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

Maintenance closing report

https://ieee802.org/3/minutes/mar24/0324_maint_close_report.pdf

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>

Progress

IEEE 802.3 Working Group approved submittal of IEEE P802.3cw PAR withdrawal request

IEEE 802 LMSC approved submittal of IEEE P802.3cw PAR withdrawal request

Next steps

IEEE P802.3cw PAR withdrawal request consideration at 6 May 2024 NesCom meeting

NesCom recommendations will be submitted to 10-day IEEE SA Standards Board email ballot

Task Force closing report

https://ieee802.org/3/minutes/mar24/2403_3cw_closed_report.pdf

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

Considered eight contribution: DPLCA issues, Clause 169 discovery parameters, MPD unit loads, compensated T / TCI measurements, and mixing segment specifications

Completed IEEE P802.3da draft D1.0 Task Force review comment resolution

Next steps

Conduct IEEE P802.3da draft D1.1 Task Force review

Task Force closing report

https://ieee802.org/3/minutes/mar24/802d3da_task_force_close_report_0324.pdf

IEEE P802.3df 400 Gb/s and 800 Gb/s Ethernet Task Force

Description

Define Ethernet MAC parameters, physical layer specifications, and management parameters for the transfer of Ethernet format frames at 800 Gb/s over copper, multi-mode fiber, and single-mode fiber physical medium dependent (PMD) sublayers based on 100 Gb/s per lane signaling technology.

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

Progress

IEEE P802.3df draft D3.2 approved as an IEEE Standard on 15 February 2024

IEEE Std 802.3df-2024 IEEE Standard for Ethernet Amendment 9: Media Access Control Parameters for 800 Gb/s and Physical Layers and Management Parameters for 400 Gb/s and 800 Gb/s Operation published on 15 March 2024

IEEE Std 802.3df-2024 awards announced

https://ieee802.org/3/minutes/mar24/0324_802_3_closing_plenary.pdf#page=42

Next steps

Work of IEEE P802.3df 400 Gb/s and 800 Gb/s Ethernet Task Force now complete

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

Considered contributions related to noise, PHY simulations (PAM 3 & PAM 4), defining a new MII

Did not reach consensus on PAM-3/PAM-4, but reached consensus on a path forward

Substantial interest in new MII specification, lack of consensus it is within scope of IEEE P802.3dg

Advocate expressed that he plans to bring the topic to the IEEE 802.3 NEA Ad Hoc for a wider audience

Next steps

Continue baseline selection to satisfy the project objectives

Task Force closing report

https://ieee802.org/3/minutes/mar24/802d3dg_close_report_Mar2024.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 31 technical contributions

Key architecture, copper and optical decisions made

Logic, PMD and AUI baselines adopted for all objectives

New 20 km SMF objective adopted

Define a physical layer specification that supports 800 Gb/s operation over a single SMF in each direction with lengths up to at least 20 km

Next steps

Generate IEEE P802.3dj draft D1.0

Conduct initial Task Force review of IEEE P802.3dj draft D1.0

Task Force closing report

https://ieee802.org/3/minutes/mar24/2403_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

Adopted 100G BR40 specifications values, 100G BR20 insertion loss range and APD-based receive parameters, and 100G BiDi PICS

Next steps

Continue baseline selection to satisfy the project objectives

Task Force closing report

https://ieee802.org/3/minutes/mar24/802d3dk_Task_Force_close_report.pdf

IEEE P802.3.1 (IEEE 802.3.1b) SMIv2 data model (revision) Task Force

IEEE P802.3.2 (IEEE 802.3.2a) YANG data model (revision) Task Force

Description

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.

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.

Progress

Completed IEEE 802.3.1b draft D1.1 first Working Group recirculation ballot comment resolution
Consensus on format/validation process for SMIv2 and YANG data modules reached

Next Steps

Conduct IEEE 802.3.1b second Working Group recirculation ballot
Completed IEEE 802.3.2a draft D1.1 first Working Group recirculation ballot comment resolution
Prepare for IEEE 802.3.1b and IEEE 802.3.2a Standards Association ballot

Task Force closing report

https://ieee802.org/3/minutes/mar24/802d3_task_force_802.3.1_802.3.2_closing.pdf

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

Description

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)’

Progress

No comments received on Working Group preview draft

Approval granted to proceed to Working Group ballot

Next Steps

Conduct IEEE 802.3dn initial Working Group ballot

Prepare for IEEE 802.3dn Standards Association ballot

Task Force closing report

https://ieee802.org/3/minutes/mar24/802d3dn_task_force_closing_report_March2024.pdf

IEEE 802.3 Ethernet for Automotive Imaging Sensors (ISAAC) Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for greater than 10 Mb/s long reach point to point Single Pair Ethernet for an electrical physical layer specification and related functionality of a client optimized for automotive end-node cameras

Progress

IEEE P802.3dm PAR, CSD and objectives approved by IEEE 802 LMSC

IEEE P802.3dm PAR and CSD approved by IEEE 802 LMSC

IEEE P802.3dm PAR approved by IEEE SA Standards Board on 21 March 2024

Next steps

Work of IEEE 802.3 Ethernet for Automotive Imaging Sensors Study Group now complete

IEEE P802.3dm Ethernet for Automotive Imaging Sensors Task Force formed

Study Group closing report

https://ieee802.org/3/minutes/mar24/0324_ISAAC_close_report.pdf

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 public inputs and public comments for the next edition of NFPA70; and

- Build consensus on input to IEC 60364-7-716, and proposed direction of the IEEE 802.3 Category C liaison expert to IEC TC64/MT2; and

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

- Build consensus on input to ITU-T SG5; and

- Build consensus on input to IEC SC25/WG3

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

Progress

- Completed ITU-T K.117 Supplement 25 comment

- Discussed ISO/IEC JTC 1/SC 25/WG 3 March 2024 meeting and IEEE 802.3 delegation

- Updated PDCC charter (see above)

Next steps

- Continue to monitor activities within scope

Ad Hoc closing report

https://ieee802.org/3/minutes/mar24/PDCC_adhoc_close_report_0324.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 P802.3cw 400 Gb/s over DWDM systems: John D'Ambrosia <jdambrosia@ieee.org>

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 P802.3.1 (IEEE 802.3.1b) SMIv2 Data Models (Revision) Marek Hajduczenia <mxhajduczenia@gmail.com>

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 P802.3dm Ethernet for Automotive Imaging Sensors Task Force Jon Lewis <jon.lewis@dell.com> (acting)

IEEE 802.3 Task Force vice-chairs

IEEE P802.3cw 400 Gb/s over DWDM systems: Tom Issenhuth <tissenhuth@outlook.com>

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

Today		March 2024		Print		Week		Month		Agenda	
Sun	Mon	Tue	Wed	Thu	Fri	Sat					
25	26	27	28	29	1 Mar	2					
	16:00 IEEE 802.3 PAR review ad hoc tele		15:00 IEEE P802.3dg 100BASE-T1L Task 18:00 PDCC AdHoc Weekly meeting	14:30 P802.3dj electrical ad hoc meeting 16:00 IEEE P802.3da D1.0 comment resc							
3	4	5	6	7	8	9	No Meetings				
10	11	12	13	14	15	16	IEEE 802.3 March 2024 hybrid plenary REGISTRATION FEE REQUIRED				
	16:00 IEEE 802.3 Working Group opening	14:00 IEEE P802.3cw / dj Joint TF Mtg - P	14:00 IEEE P802.3cw / dj Joint TF Mtg - P	14:00 IEEE P802.3cw / dj Joint TF Mtg - P							
	19:00 IEEE P802.3cw / dj Joint TF Mtg - P +2 more	15:00 IEEE P802.3dg 100BASE-T1L Task +2 more	14:00 Joint IEEE P802.3.1b / P802.3.2a n +2 more	15:00 IEEE P802.3da Task Force - REGIS 19:00 IEEE 802.3 Working Group closing							
17	18	19	20	21	22	23					
			17:00 PDCC AdHoc Weekly meeting	14:00 IEEE P802.3.2a Virtual Interim Me							
24	25	26	27	28	29	30					
			17:00 PDCC AdHoc Weekly meeting								
31	1 Apr	2	3	4	5	6					
		15:00 [802.3dj] COM Ad hoc	18:00 PDCC AdHoc Weekly meeting	14:30 P802.3dj electrical ad hoc meeting							

Events shown in time zone: United Kingdom Time

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