IEEE 802.3 Working Group
March 2022 Plenary Session

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Web site: www.ieee802.org/3

IEEE 802.3 Maintenance

Progress

- Maintenance requests
  - Reviewed three new maintenance requests received since May 2022 interim meeting
  - Reviewed status of outstanding maintenance requests
- Discussed possible revision of IEEE Std 802.3.1-2013 SMIv2 MIBs
- Discussed possible revision or amendment of IEEE Std 802.3.2-2019 YANG modules

Web page

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

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

Progress

Unconditional approval granted to submit IEEE P802.3ck draft D3.3 to RevCom

Next steps

Progress ratification of IEEE P802.3ck draft D3.3

IEEE P802.3cs Increased-reach Ethernet optical subscriber access (Super-PON) Task Force

Description

Define physical layer specifications and management parameters for optical subscriber access supporting point-to-multipoint operations using wavelength division multiplexing over an increased-reach (up to at least 50 km) passive optical network (PON)

Web site: http://ieee802.org/3/cs/index.html

Progress

Unconditional approval granted to submit IEEE P802.3cs draft D3.4 to RevCom

Next steps

Progress ratification of IEEE P802.3cs draft D3.4

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

Approval granted to progress IEEE P802.3cw to initial Working Group ballot

Next steps

Conduct IEEE P802.3cw initial Working Group ballot

IEEE P802.3cx Improved PTP timestamping accuracy Task Force

Description

Define optional enhancements to Ethernet support for time synchronization protocols to provide improved timestamp accuracy in support of ITU-T Recommendation G.8273.2 'Class C' and 'Class D' system time error performance requirements.

Web site: http://ieee802.org/3/cx/index.html

Progress

Unconditional approval granted to progress IEEE P802.3cx to Standards Association ballot

Next steps

Conduct IEEE P802.3cx initial Standards Association ballot

IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 to add greater than 10 Gb/s electrical Physical Layer specifications for symmetrical and asymmetrical operation and management parameters for media and operating conditions for applications in the automotive environment.

Web site: http://ieee802.org/3/cy/index.html

Progress

Approval granted to progress IEEE P802.3cy to initial Working Group ballot

Next steps

Conduct IEEE P802.3cy initial Working Group ballot

IEEE P802.3cz Multi-Gigabit Optical 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 multi-gigabit optical Ethernet using graded-index glass optical fiber for application in the automotive environment.

Web site: http://ieee802.org/3/cz/index.html

Progress

Conditional approval granted to progress IEEE P802.3cz to Standards Association ballot

Next steps

Complete the IEEE P802.3cz Working Group balloting process

Conduct IEEE P802.3cz initial Standards Association ballot

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

Heard seven presentations: Multidrop Mixing Segment, Multidrop network measurements, Noise Environment Definition, Consensus Model Update, RX Model Proposal, Receive Mode Collisions, IEEE P802.3da Open Questions

Discussed a timeline update

Discussed extending teleconference meetings, increasing frequency

Next steps

Continue baseline selection to satisfy the project objectives

IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 and adds Physical Layer specifications and management parameters for 100 Gb/s, 200 Gb/s, and 400 Gb/s Ethernet optical interfaces for server attachment and other intra-data center applications using 100 Gb/s signaling over optical fiber

Web site: http://ieee802.org/3/db/index.html

Progress

Conditional approval granted to progress IEEE P802.3db to RevCom submittal

Next steps

Complete the IEEE P802.3db Standards Association balloting process

Progress ratification of IEEE P802.3db

IEEE P802.3de Time Synchronization for Point to Point Single Pair Ethernet Task Force

Description

Specify additions to and appropriate modifications of the IEEE Std 802.3 MAC Merge function and the Time Synchronization Service Interface (TSSI) to support 10 Mb/s Single Pair Ethernet point to point PHYs

Web site: http://ieee802.org/3/de/index.html

Progress

Unconditional approval granted to submit IEEE P802.3de draft D3.1 to RevCom

Next steps

Progress ratification of IEEE P802.3de draft D3.1

IEEE P802.3df 200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/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 and 1.6 Tb/s over copper, multi-mode fiber, and single-mode fiber, and use this work to define derivative physical layer specifications and management parameters for the transfer of Ethernet format frames at 200 Gb/s and 400 Gb/s.

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

Progress

Heard 26 Technical presentations

Introduced proposed project documentation packages for IEEE P802.3df (modified) and IEEE P802.3dj

- IEEE P802.3df - 400 GbE and 800 GbE Objectives based on 100 Gbps/lane
- IEEE P802.3dj - 200 GbE, 400 GbE, 800 GbE, and 1.6 TbE based on 200 Gbps/lane (plus 16 x 100G AUIs)

Next steps

Continue baseline selection to satisfy the project objectives

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

Discussed 3 contributions related to the noise environment and standards

Identified next steps to progress to baselines on link segment and PHY

Held discussion of preliminary timeline to draft 2.0

Next steps

Continue baseline selection to satisfy the project objectives

IEEE P802.3dh Multi-Gigabit Automotive Ethernet over Plastic Optical Fiber Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 to add Physical Layer specifications and management parameters for multi-gigabit optical Ethernet using graded-index plastic optical fiber for application in the automotive environment.

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

Progress

Hear 4 presentations

- Timeline proposal
- Attenuation, bandwidth and connection loss of GIPOF
- Wavelength proposal: 850 nm, 980 nm

Next steps

Continue baseline selection to satisfy the project objectives

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

Approval granted to submit NEA ICAID renewal to ICCom

Next steps

Progress ICAID renewal ratification

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

Progress

Delegation and contribution to September 2022 ISO/IEC JTC1 SC25/WG meeting approved

Next steps

Continue to monitor activities within scope

Greater than 50 Gb/s Bidirectional Optical Access PHYs call for interest

Progress

- Study Group formation approved
  - The scope of the Study Group is to consider development of a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for greater than 50 Gb/s Bidirectional Optical Access PHYs

Next steps

- Development of PAR, CSD responses and objectives

IEEE 802.3 Officers, Subgroup Chairs and Vice-Chairs

IEEE 802.3 Chair: David Law <dlaw@hpe.com>
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IEEE P802.3cx Improved PTP Timestamping Accuracy: Steve Gorshe <steve.gorshe@microchip.com>
IEEE P802.3cy Greater than 10 Gb/s Electrical Automotive Ethernet: Steve Carlson <scarlson@ieee.org>
IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet: Bob Grow <bob.grow@ieee.org>
IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement: Chad Jones <cmjones@cisco.com>
IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber: Robert Lingle <robert.lingle@gtri.gatech.edu>
IEEE P802.3dd Power over Data Lines of Single Pair Ethernet (Maintenance #17): George Zimmerman <george@cmephyconsulting.com>
IEEE P802.3de Time Synchronization for Point-to-Point Single Pair Ethernet: George Zimmerman <george@cmephyconsulting.com>
IEEE P802.3df 200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/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 P802.3dh Multi-Gigabit Automotive Ethernet over Plastic Optical Fiber: Yuji Watanabe <yuji.watanabe@agc.com>

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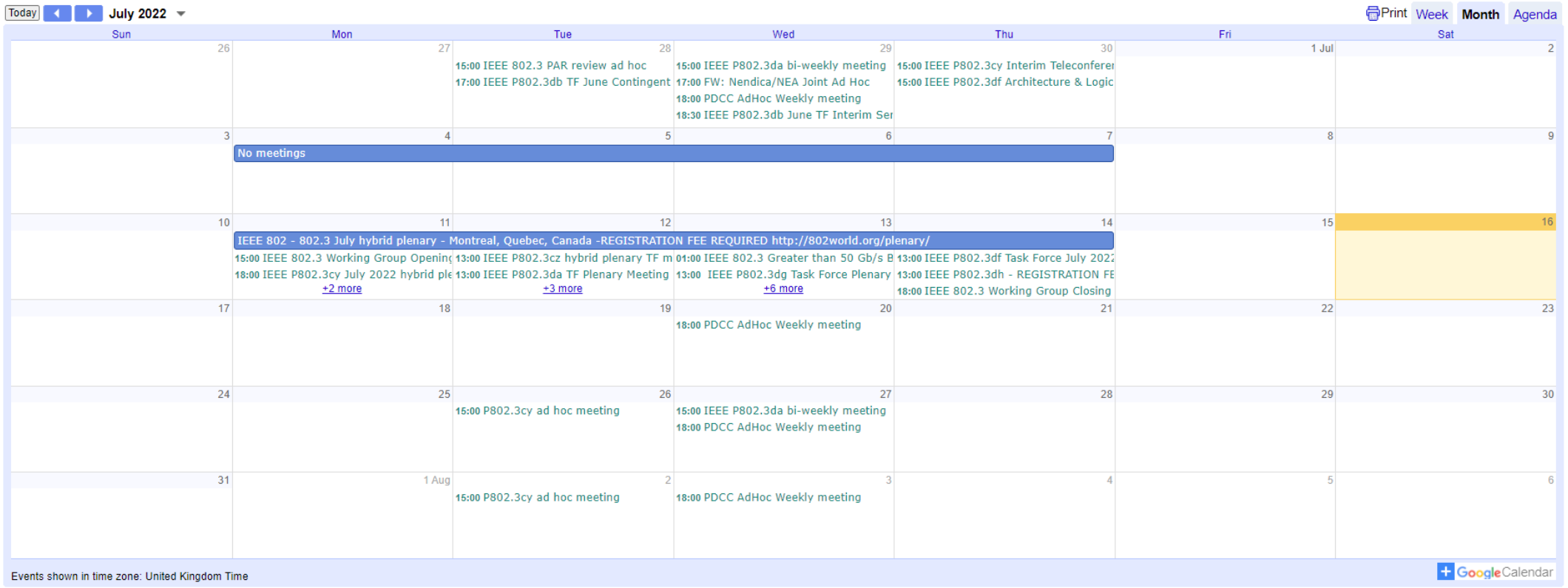
IEEE P802.3df 200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/s Ethernet: Mark Nowell <mnowell@cisco.com>

Upcoming meetings

Please see http://www.ieee802.org/3/calendar.html



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