IEEE 802.3 Working Group
November 2021 Plenary Session

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Web site: www.ieee802.org/3

IEEE 802.3 Maintenance

Progress

Maintenance requests

- No new maintenance requests received since September 2021 interim meeting
- Reviewed status of outstanding maintenance requests

ISO/IEC JTC1 SC6

- Responded to comments on IEEE Std 802.3.2-2019, IEEE Std 802.3cn-2019, IEEE Std 802.3cq-2020, IEEE Std 802.3cm-2020, IEEE Std 802.3ch-2020, IEEE Std 802.3ct-2021, IEEE Std 802.3cv-2021 and IEEE Std 802.3cp-2021 adoption by ISO/IEC JTC1/SC6 under PSDO agreement

IEEE P802.3 (IEEE 802.3dc) revision project

- Completed first Working Group recirculation ballot comment resolution
- Conditional approval granted to proceed to Standards Association ballot

Next steps

- Conduct IEEE P802.3 (IEEE 802.3dc) D2.2 second recirculation Working Group ballot

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

IEEE P802.3ck D2.3 third Working Group recirculation ballot comment resolution

- Developing responses for 46 comments received

Next steps

Complete responses to IEEE P802.3ck D2.3 comments

Seek approval to proceed to Standards Association ballot

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

Completed fourth Working Group recirculation ballot comment resolution

Granted approval to proceed to Standards Association ballot

Next steps

Conduct IEEE P802.3cs D3.0 initial Standards Association ballot

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

Completed third Task Force review comment resolution

Next steps

Continue baseline selection to satisfy the project objectives

Conduct IEEE P802.3cw D1.3 fourth Task Force review

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

IEEE P802.3cx D2.0 initial Working Group recirculation ballot comment resolution

- Developing responses for 143 comments received

Next steps

Complete responses to IEEE P802.3cx D2.0 comments

Conduct IEEE P802.3cx D2.1 first Working Group recirculation 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

Considered 7 contributions

Micro-Reflection Limits, Baseline Wander, FEC, and Link Synchronization

Adopted text for reference insertion loss, host PCB trace loss, TP0 to TP5 channel insertion loss, and channel return loss

Next steps

Continue baseline selection to satisfy the project objectives

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 for application in the automotive environment.

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

Progress

Considered 1 contribution

- Silicon Photonics Launch Condition Consensus Definition at 1310nm

Next steps

Continue baseline selection to satisfy the project objectives

Conduct IEEE P802.3cz D1.2 third Task Force review

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 1 contribution

- Single Pair Ethernet Multidrop Enhancements Mixing Segment Considerations

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

IEEE P802.3db D2.0 initial Working Group recirculation ballot comment resolution

Developing responses for 252 comments received

Next steps

Complete responses to IEEE P802.3db D2.0 comments

Conduct IEEE P802.3db D2.1 first Working Group recirculation ballot

IEEE P802.3dd Power over Data Lines of Single Pair Ethernet (Maintenance #17) Task Force

Description

Implement editorial and technical corrections, refinements, and clarifications to Clause 104, Power over Data Lines (PoDL) of Single Pair Ethernet, and related portions of the IEEE Std 802.3 Ethernet standard. No new features are added by this project.

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

Progress

IEEE P802.3dd D2.0 initial Working Group recirculation ballot comment resolution

- Developed responses for 63 comments received

Next steps

Conduct IEEE P802.3dd D2.1 first Working Group recirculation ballot

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

Approval granted to proceed to initial Working Group ballot

Next steps

Conduct IEEE P802.3de initial Working Group ballot

IEEE 802.3 Beyond 400 Gb/s Ethernet Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for:

(1) Beyond 400 Gb/s Ethernet

(2) Physical Layer specifications for existing Ethernet rates based on Physical Layer specifications for beyond 400 Gb/s Ethernet.

Web site: https://ieee802.org/3/B400G/index.html

Progress

IEEE P802.3df PAR and CSD approved by IEEE 802 Executive Committee

IEEE P802.3df PAR placed on December 2021 NesCom agenda

Study Group re-chartered

Backup if PAR not approved by IEEE-SA Standards Board

IEEE 802.3 Greater than 10 Mb/s Long Reach Single Pair Ethernet 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 PHYs and associated powering

Web site: https://ieee802.org/3/GT10MSPE/index.htmlProgress

Progress

Considered 1 contribution

100BASE-T1L Reach and Connectors

Reviewed draft PAR, CSD and Project Objectives

Study Group re-chartered

Next steps

Continue development of PAR, CSD and Project Objectives

IEEE 802.3 Officers, Subgroup Chairs and Vice-Chairs

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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 <rlingle@ofsoptics.com>
IEEE P802.3 (IEEE 802.3dc) Revision to IEEE Std 802.3-2018 (Maintenance #16): Adam Healey <adam.healey@broadcom.com>
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>

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IEEE 802.3 Study Group vice-chair

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Upcoming meetings

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

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