IEEE 802.3 Working Group July 2020 Plenary Week

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Web site: www.ieee802.org/3

Current IEEE 802.3 activities

IEEE 802.3 Task Forces

IEEE P802.3ca 25 Gb/s and 50 Gb/s EPON

IEEE P802.3ch Multi-Gig Automotive Ethernet PHY

IEEE P802.3ck 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces

IEEE P802.3cp Bidirectional 10 Gb/s, 25 Gb/s and 50 Gb/s Optical Access PHYs

IEEE P802.3cr Isolation (Maintenance #14) Task Force

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

IEEE P802.3ct 100 Gb/s over DWDM systems

IEEE P802.3cu 100 Gb/s and 400 Gb/s over SMF at 100 Gb/s per Wavelength

IEEE P802.3cv Power over Ethernet (Maintenance #15)

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

IEEE P802.3cx Improved PTP Timestamping Accuracy

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

IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet Task Force

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

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

IEEE 802.3 Ad Hoc

IEEE 802.3 New Ethernet Applications Ad Hoc

IEEE 802.3 SCC18 Ad Hoc

IEEE 802.3 Maintenance

Plan

Consider new maintenance requests

Review status of outstanding maintenance requests

Consider any other maintenance business

Plenary session teleconference planned for 14h00 UTC Monday 20th July 2020

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

Status

Draft D1.2 sent out for 3rd Task Force review

Plan

Consideration of comments received against draft D1.2

Continue work towards technically complete draft for working group ballot

First plenary session teleconference planned for 14h00 UTC Wednesday 15th July 2020

IEEE P802.3cp Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs Task Force

Description

Define physical layer specifications and management parameters for symmetric bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s operation over single strand of single mode fiber of at least 10 km

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

Status

Draft D2.0 sent out for Initial Working Group ballot

Plan

Consideration of comments received against draft D2.0

First plenary session teleconference planned for 13h00 UTC Wednesday 15th July 2020

IEEE P802.3cr Isolation (Maintenance #14) Task Force

Description

Replace references to the IEC 60950 series of standards (including IEC 60950-1 "Information technology equipment - Safety - Part 1: General requirements") with appropriate references to the IEC 62368 "Audio/video, information and communication technology equipment" series and make appropriate changes to the standard corresponding to the new references

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

Status

Draft D3.0 sent out for Initial Standards Association ballot

Plan

Consideration of comments received against draft D3.0

Plenary session teleconference planned for 14h00 UTC Thursday 16th July 2020

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

Status

Baseline proposal selection to satisfy objectives and draft development

Draft D1.0 sent out for 7th Task Force review

Plan

Continue to work on selection of a set of baseline proposals

Consideration of comments received against draft D1.0

First plenary session teleconference planned for 17h00 UTC Thursday 16th July 2020

IEEE P802.3ct 100Gb/s over DWDM systems Task Force

Description

Define physical layer specifications and management parameters for the transfer of Ethernet format frames at 100 Gb/s at reaches greater than 10 km over DWDM systems

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

Status

Draft D2.0 sent out for Initial Working Group ballot

Plan

Consideration of comments received against draft D2.0

Plenary session teleconference planned for 14h00 UTC Thursday 16th July 2020

IEEE P802.3cu 100 Gb/s and 400 Gb/s over SMF at 100 Gb/s per Wavelength Task Force

Description

Define additions to and appropriate modifications of IEEE Std 802.3 to add PHY specifications and Management Parameters for 100 Gb/s and 400 Gb/s Ethernet optical interfaces for reaches up to 10 km based on 100 Gb/s per wavelength optical signaling.

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

Status

Draft D2.2 sent out for 2nd Working Group recirculation ballot

Ballot closed on 30th June 2020 with no new negatives and no comments to consider

Approval granted by IEEE 802 Executive Committee to proceed to Standards Association ballot

Draft D3.0 sent out for initial Standards Association ballot

Plan

Task Force will not be meeting during July 2020 plenary session Initial Standards Association ballot underway

IEEE P802.3cv Maintenance #15: Power over Ethernet Task Force

Description

Editorial and technical corrections, refinements, and clarifications to Clause 145, Power over Ethernet, and related portions of the standard. No new features will be added by this project.

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

Status

Draft D2.0 sent out for Initial Working Group ballot

Plan

Consideration of comments received against draft D2.0

First plenary session teleconference planned for 14h00 UTC Tuesday 21th July 2020

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

Selecting set of baseline proposals to satisfy project objectives

Plan

Selecting set of baseline proposals to satisfy project objectives

Plenary session teleconference planned for 14h00 UTC Thursday 16th July 2020

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

Status

Selecting set of baseline proposals to satisfy project objectives

Plan

Selecting set of baseline proposals to satisfy project objectives

Plenary session teleconference planned for 14h00 UTC Wednesday 22nd July 2020

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

Status

PAR approved 3rd June 2020

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

First plenary session teleconference planned for 14h00 UTC Wednesday 15th July 2020

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

Status

PAR approved 3rd June 2020

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

First plenary session teleconference planned for 12h00 UTC Tuesday 14th July 2020

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

PAR approved 3rd June 2020

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

First plenary session teleconference planned for 14h00 UTC Tuesday 14th July 2020

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

Status

PAR approved 3rd June 2020

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

First plenary session teleconference planned for 14h00 UTC Tuesday 14th July 2020

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

Progressing NEA Industry Connections Activity Initiation Document (ICAID)

Provide two year extension of NEA to December 31st 2022

Development of the Beyond 400 GbE CFI Activity

Meeting plan

Respond to any comments received on ICAID

Plenary session teleconference planned for 17h00 UTC Tuesday 14th July 2020

IEEE 802.3 SCC18 Ad Hoc

Description

Ad Hoc Scope: Build consensus on responses to public input proposals received as part of the NEC 2020 code cycle for consideration at the September 2017 IEEE 802.3 interim meeting and November 2017 IEEE 802.3 plenary; Consider any other IEEE SCC18 related items of interest, such as proposed Tentative Interim Amendments (TIA); and Build consensus on draft input to IEC TC64/PT716, and proposed direction of the IEEE 802.3 Category D liaison expert, for consideration at upcoming IEEE 802.3 interim and plenary meetings, in preparation for the next IEC TC64/PT716 meeting.

Web site: http://ieee802.org/3/ad_hoc/SCC_18/index.html

Status

Changing IEEE relationship with NFPA

Appointment of IEEE's External Representatives to the NFPA terminating 31st August 2020

IEEE SCC18 Coordinating Committee disbanding 31st August 2020

Six individuals nominated as IEEE 802.3 organisational representatives to NFPA 70 code making panels

New IEC Power over Ethernet related project

<u>IEC 63315 ED1</u> Audio/Video, Information and Communication Technology Equipment – Safety – DC power transfer between ICT equipment ports using ICT cabling at ≤ 60 Vd.c.

IEC renamed Category D liaisons as Category C liaisons

Meeting plan

Consider scope update request

Consider request for Category C liaison with IEC PT 63315

First plenary session teleconference planned for 17h00 UTC Wednesday 15th July 2020

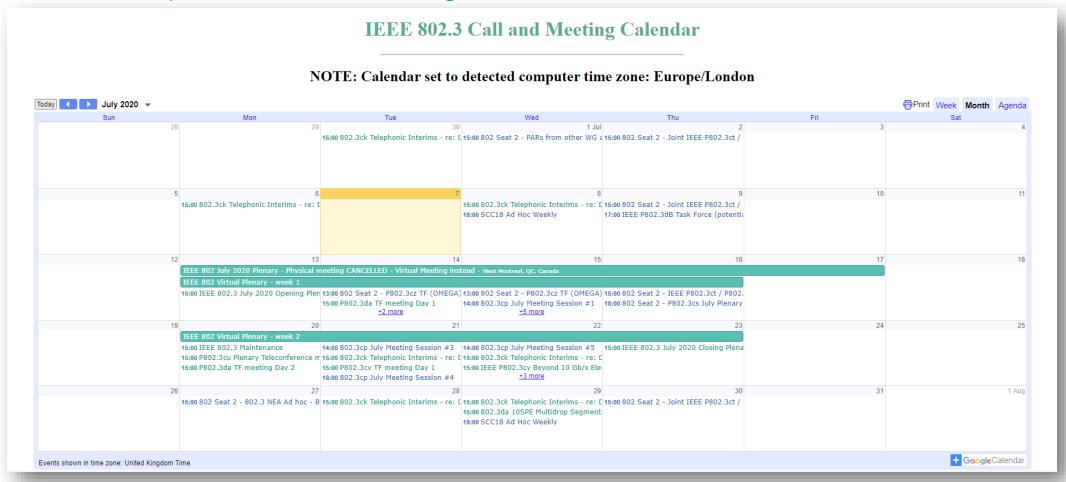
IEEE 802.3 Officers, Subgroup Chairs and Vice-Chairs

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IEEE P802.3cu 100 Gb/s and 400 Gb/s over SMF at 100 Gb/s per Wavelength: Mark Nowell <mnowell@cisco.com>
IEEE P802.3cv Power over Ethernet (Maintenance #15): Chad Jones <cmjones@cisco.com>
IEEE P802.3cx Improving PTP Timestamping Accuracy on Ethernet Interfaces: Steve Gorshe <steve.gorshe@microchip.com>
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IEEE P802.3cz Multi-Gigabit Optical Automotive Ethernet Task Force: Bob Grow <bob.grow@ieee.org>
IEEE P802.3da 10 Mb/s Single Pair Multidrop Segments Enhancement Task Force: Chad Jones <cmjones@cisco.com>
IEEE P802.3db 100 Gb/s, 200 Gb/s, and 400 Gb/s Short Reach Fiber Task Force: Robert Lingle <rlingle@ofsoptics.com>
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Upcoming meetings

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



State of the standard IEEE Std 802.3-2018 Revision

IEEE Std 802.3-2018 Standard for Ethernet 8 Books (Sections) 14-Jun-18/31-Aug-18*							
Clause 1 to 20 Annex A to H, 4A CSMA/CD Overview MAC PLS/AUI 10BASE5 MAU 10BASE2 MAU 10BROAD36 MAU 10BASE-T MAU 10BASE-F MAUS 10 Mb/s Repeater 10 Mb/s Topology 10BASE-Te	Section 2 Clause 21 to 33 Annex 22A to 33E 100 Mb/s Overview MII 100BASE-T2 100BASE-T4 100BASE-TX 100BASE-FX 100Mb/s Repeater 100Mb/s Topology MAC Control Auto-Negotiation (AN) Management DTE Power	Section 3 Clause 34 to 43 Annex 36A to 43C 1000 Mb/s Overview GMII 1000BASE-X AN 1000BASE-SX 1000BASE-LX 1000BASE-CX 1000BASE-T 1000 Mb/s Repeater 1000 Mb/s Topology	Section 4 Clause 44 to 55 Annex 44A to 55B 10 Gb/s Overview MDC/MDIO XGMII XAUI XSBI 10GBASE-SR 10GBASE-ER 10GBASE-ER 10GBASE-EW 10GBASE-LW 10GBASE-LW 10GBASE-LX4 10GBASE-CX4 10GBASE-T	Section 5 Clause 56 to 77 Annex 57A to 76A Subscriber Access Networks (SA) Overview OAM MPMC 100BASE-LX10 1000BASE-BX10 1000BASE-BX10 1000BASE-PX10 1000BASE-PX20 10GBASE-PX20 10GBASE-PRX 10/1GBASE-PRX 10PASS-TS 2BASE-TL SA Topology 10GBASE-LRM Backplane Overview 1000BASE-KX 10GBASE-KX 10GBASE-KX 10GBASE-KX Backplane AN	Section 6 Clause 78 to 95 Annex 83A to 93C EEE LLDP TLVs Time Sync RS-FEC 40/100G Overview 40GBASE-KR4 40GBASE-KR4 40GBASE-SR4 40GBASE-FR 40GBASE-ER4 100GBASE-ER4 100GBASE-CR10 100GBASE-KR4 100GBASE-KR4 100GBASE-KR4 100GBASE-KR4 100GBASE-CR4 100GBASE-CR4 100GBASE-CR4	Section 7 Clause 96 to 115 Annex 97A to 115A 100BASE-T1 1000BASE-T1 Single-Pair AN MAC Merge 10GPASS-XR EPoC PHY Link MPMC for EPoC PoDL 25Gb/s Overview 25GBASE-CR/CR-S 25GBASE-KR/KR-S 25GBASE-SR 25GBASE-LR 25GBASE-ER 25GBASE-T 1000BASE-RHA/B/C	Section 8 Clause 116 to 126 Annex 119A to 120E 200 Gb/s and 400 Gb/s Overview 200GBASE-DR4 200GBASE-FR4 200GBASE-LR4 400GBASE-BR4 400GBASE-BR8 400GBASE-LR8 2.5 Gb/s and 5 Gb/s Overview 2.5GBASE-T 5GBASE-T

State of the standard Current amendments

IEEE Std 802.3-2018 amendments

IEEE Std 802.3cb-2018

Amendment 1: Physical Layer Specifications and Management Parameters for 2.5 Gb/s and 5 Gb/s Operation over Backplane 27-Sep-18/04-Jan-19*

IEEE Std 802.3bt-2018

Amendment 2: Physical Layer and Management Parameters for Power over Ethernet over 4 pairs 27-Sep-18/31-Jan-18*

IEEE Std 802.3cd-2018

Amendment 3: Media Access Control
Parameters for 50 Gb/s and Physical Layers
and Management Parameters for 50 Gb/s,
100 Gb/s, and 200 Gb/s Operation
5-Dec-18/15-Feb-19*

IEEE Std 802.3cn-2019

Amendment 4: Physical Layers and Management Parameters for 50Gb/s, 200Gb/s, and 400Gb/s Operation over Single-Mode Fiber 7-Nov-18/20-Dec-19* IEEE Std 802.3cg-2019

Amendment 5: Physical Layers Specifications and Management Parameters for 10 Mb/s Operation and Associated Power Delivery over a Single Balanced Pair of Conductors 7-Nov-19/5-Feb-20*

IEEE Std 802.3cq-2020

Amendment 6: Maintenance #13: Power over Ethernet over 2 pairs 30-Jan-20/13-Mar-20*

IEEE Std 802.3cm-2020

Amendment 7: Physical Layer and Management Parameters for 400 Gb/s over Multimode Fiber 30-Jan-20/30-Mar-20*

IEEE Std 802.3ch-2020

Amendment 8:Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Automotive Electrical Ethernet 4-Jun-20/30-Jun-20* IEEE Std 802.3ca-2020

Amendment 9:Physical Layer Specifications and Management Parameters for 25 Gb/s and 50 Gb/s Passive Optical Networks
4-Jun-20/30-Jun-20*

State of the standard Other IEEE 802.3 standards

IEEE Std 802.3.1-2013
IEEE Standard for
Management Information Base
(MIB) Definitions for Ethernet
14-Jun-13/02-Aug-13*

IEEE Std 802.3.2-2019
IEEE Standard for Ethernet YANG
Data Model Definitions
21-Mar-19/21-Jun-19*

State of the standard IEEE 802.3 current status overview

Call for interest Study Group Task Force IEEE P802.3cs IEEE P802.3cp IEEE P802.3db IEEE P802.3cx Increased-reach Bidirectional 10 Gb/s. 100 Gb/s, 200 Gb/s, Improved PTP 25 Gb/s, and and 400 Gb/s Short Timestamping Ethernet optical subscriber access 50 Gb/s Optical Reach Fiber Accuracy (Super-PON) Access PHYs Baseline section Baseline section D1.0 Task D2.0 Working Force Review Group ballot IEEE P802.3da IEEE P802.3cw 10 Mb/s Single Pair 400 Gb/s over IEEE P802.3cu **Multidrop Segments** IEEE P802.3cv DWDM systems 100 Gb/s and 400 Maintenance #15: Enhancement Baseline section Gb/s over SMF at Power over Ethernet Baseline section 100 Gb/s per Task Force Wavelength IEEE P802.3ck D2.0 Working IEEE P802.3cz 100 Gb/s, 200 Gb/s, D3.0 Standards Group ballot Multi-Gigabit Optical and 400 Gb/s Association ballot **Automotive Ethernet Electrical Interfaces** IEEE P802.3ct Baseline section D1.2 Task IEEE P802.3cr 100 Gb/s over Isolation Force Review DWDM systems IEEE P802.3cy (Maintenance #14) Task Force Greater than 10 Gb/s D3.0 Standards D2.0 Working **Electrical Automotive** Association ballot Group ballot Ethernet Baseline section

Progress to standard