IEEE 802.3 Working Group
July 2018 Plenary Week

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Web site: www.ieee802.org/3

Current IEEE 802.3 activities

- IEEE 802.3 Task Forces
  - IEEE P802.3bt DTE Power via MDI over 4-Pair
  - IEEE P802.3ca 25 Gb/s, 50 Gb/s, and 100 Gb/s Ethernet Passive Optical Networks
  - IEEE P802.3cb 2.5 Gb/s and 5 Gb/s Backplane
  - IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet
  - IEEE P802.3.2 (IEEE 802.3cf) YANG Data Model Definitions
  - IEEE P802.3cg 10 Mb/s Single Pair Ethernet
  - IEEE P802.3ch Multi-Gig Automotive Ethernet PHY
  - IEEE P802.3 Revision to IEEE Std 802.3-2015 (IEEE 802.3cj) Maintenance #12
  - IEEE P802.3ck 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces
  - IEEE P802.3cm 400 Gb/s over Multimode Fiber
- IEEE 802.3 Study Group
  - IEEE 802.3 Beyond 10 km Optical PHYs
  - IEEE 802.3 Bidirectional 10 Gb/s and 25 Gb/s Optical Access PHYs
- IEEE 802.3 Call for Interest
  - Ethernet Access PMDs for Central Office Consolidation (Super-PON)
  - Bidirectional 50Gb/s optical access PHYs
- IEEE 802.3 Industry Connection activity
  - IEEE 802.3 New Ethernet Applications Ad Hoc

IEEE 802.3 Maintenance

- Meeting plan
  - Consider new maintenance requests
  - Review status of outstanding maintenance requests
  - ISO/IEC JTC1 SC6 adoptions under PSDO agreement
    - Submission of IEEE 802.3 drafts for review
    - Submission of IEEE 802.3 standards for adoption
    - Respond to any comments on adoption of IEEE 802.3 standards
  - Consider any other maintenance business
- Web page
  - http://www.ieee802.org/3/maint/index.html

IEEE P802.3bt DTE Power via MDI over 4-Pair Task Force

Description

Augment the capabilities of the IEEE Std 802.3 standard with 4-pair power and associated power management information, optional augmented power limit will be made available for certain structured cabling systems, improvements introduced for 4-pair systems, excluding raising the power limit, are optionally enabled for 2-pair systems

Web site: http://www.ieee802.org/3/bt/index.html

Status

Last met during the May 2018 interim meeting series

Draft D3.5 sent out for 5th Sponsor recirculation ballot

Meeting plan

Consideration of comments received against draft D3.5

Prepare for request to proceed to RevCom submittal

IEEE P802.3ca 25 Gb/s, 50 Gb/s, and 100 Gb/s Passive Optical Networks Task Force

Description

Amend IEEE Std 802.3 to add physical layer specifications and management parameters for symmetric and/or asymmetric operation at 25 Gb/s, 50 Gb/s, and 100 Gb/s MAC data rates on point-to-multipoint passive optical networks with distance and split ratios consistent with those defined in IEEE Std 802.3-2015

Web site: http://www.ieee802.org/3/ca/index.html

Status

Last met during the January 2018 interim meeting series

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

IEEE P802.3cb 2.5 Gb/s and 5 Gb/s Operation over Backplane Task Force

Description

Amend IEEE Std 802.3 to add 2.5 Gb/s and 5 Gb/s Physical Layer (PHY) specifications and management parameters for operation over channels such as backplanes and twinaxial copper cables consistent with current storage interconnect applications within a single rack.

Web site: http://www.ieee802.org/3/cb/index.html

Status

Last met during the May 2018 interim meeting series

Draft D3.5 sent out for 5th Sponsor recirculation ballot

Meeting plan

Consideration of comments received against draft D3.5

Prepare for request to proceed to RevCom submittal

IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet Task Force

Description

Define Ethernet Media Access Control (MAC) parameters, Physical Layer specifications, and management parameters for the transfer of Ethernet format frames at 50 Gb/s over copper and optical media. Define additional Physical Layer specifications and management parameters at 100 Gb/s over copper and optical media. Define additional Physical Layer specifications and management parameters at 200 Gb/s over copper and multimode fiber physical media

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

Status

Last met during the May 2018 interim meeting series

Draft D3.3 sent out for 3rd Sponsor recirculation ballot

Meeting plan

Consideration of comments received against draft D3.3

Prepare for request to proceed to RevCom submittal

IEEE P802.3.2 (IEEE 802.3cf) YANG Data Model Definitions Task Force

Description

- Define YANG data models for IEEE Std 802.3 Ethernet
- Web site: http://ieee802.org/3/cf/index.html

Status

- Last met during the May 2018 interim meeting series
- Draft D2.2 sent out for 2nd Working Group recirculation ballot

Meeting plan

- Consideration of comments received against draft D2.2
- Prepare for request to proceed to Sponsor ballot

IEEE P802.3cg 10 Mb/s Single Pair Ethernet Task Force

Description

Define additions to and appropriate modifications of IEEE Std 802.3 to add 10 Mb/s Physical Layer (PHY) specifications and management parameters for operation, and associated optional provision of power, using a single balanced pair of conductors.

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

Status

Last met during the May 2018 interim meeting series

Draft D1.3 sent out for 4th Task Force review

Draft D1.3 also to be submitted for Working Group preview

Meeting plan

Consideration of comments received against draft D1.3

Prepare for request to proceed to Working Group ballot

IEEE P802.3ch Multi-Gig Automotive Ethernet PHY Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 to add greater than 1 Gb/s Physical Layer (PHY) specifications and management parameters for media and operating conditions for applications in the automotive environment

Web site: http://www.ieee802.org/3/ch/index.html

Status

Last met during a May 2018 Task Force interim

Adopted baselines for TX output voltage swing and Forward Error Correction code type (Reed-Solomon). Generated IEEE P802.3ch draft D0.4

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

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

IEEE 802.3ck PAR approved by IEEE-SA Standards Board

Approval date 14 May 2018

First meeting during the May 2018 interim meeting series

Selecting set of baseline proposals to satisfy project objectives

Meeting plan

Continue to work on selection of a set of baseline proposals

IEEE 802.3 Beyond 10 km Optical PHYs Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Beyond 10 km Optical PHYs for 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s Ethernet.

Web site: <http://www.ieee802.org/3/B10K/index.html>

Status

Last met during the May 2018 interim meeting series

Completed draft objectives, CSD and PAR for proposed project

Meeting plan

Progress approval of objectives, CSD and NesCom submittal of PAR for IEEE P802.3cn Standard for Ethernet Amendment: Physical Layers and Management Parameters for 50 Gb/s, 100 Gb/s, 200 Gb/s, and 400 Gb/s Operation over Single-Mode Fiber and DWDM (dense wavelength division multiplexing) systems

IEEE 802.3 Bidirectional 10 Gb/s and 25 Gb/s Optical Access PHYs Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Bidirectional 10 Gb/s and 25 Gb/s Optical Access

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

Status

First meeting during the May 2018 interim meeting series

Initial development of draft objectives, CSD and PAR

Meeting plan

Continue developing draft objectives, CSD and PAR

Ethernet Access PMDs for Central Office Consolidation (Super-PON) call for interest

The IEEE 802.3 Ethernet Working Group continues to develop standards to scale the speed of Passive Optical Networks (PONs) and point-to-point access networks. There is a growing need to further scale the coverage and reach of PONs to cover more customers at a greater distance from a Central Office. There is also an opportunity to define a common optical infrastructure to support both point-to-multipoint (P2MP) and point-to-point (P2P) operations. This means standardizing new Ethernet Access PMDs for P2MP and P2P operations over a common long reach optical infrastructure through cost effective wavelength division multiplexing techniques. The Study Group intends to leverage existing PCS and PMA definitions and may consider defining a 2.5Gb/s EPON PCS and PMA for upstream operations. This Call for Interest is to assess the support for the formation of a Study Group to explore the development of these new Ethernet Access PMDs.

This request for agenda time for this CFI has been received from Claudio DeSanti <cdssdc@google.com>

Bidirectional 50Gb/s optical access PHYs call for interest

In the past, the IEEE 802.3 Ethernet Working Group has standardized bidirectional optical PHYs running at 100Mb/s and 1Gb/s over one single mode fiber, that are intended for optical access applications. Presently, the bidirectional 10 Gb/s and 25 Gb/s Optical Access PHYs Study Group has started. In the near future, due to the high bandwidth requirement of 5G mobile networks, bidirectional links running at 50 Gb/s will be needed. This Call for Interest is to assess the support for the formation of a study group to explore the development of 50Gb/s bidirectional optical access PHYs.

This request for agenda time for this CFI has been received from Xinyuan Wang <wangxinyuan@huawei.com>

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

Last met during the May 2018 interim meeting series

Meeting plan

One session on Monday evening

- Passive Optical Networking (PON)

IEEE 802.3 Officers

IEEE 802.3 Chair: David Law <dlaw@hpe.com>

IEEE 802.3 Vice Chair: Adam Healey <adam.healey@broadcom.com>

IEEE 802.3 Secretary: Pete Anslow <panslow@ciena.com>

IEEE 802.3 Executive Secretary: Steve Carlson <scarlson@ieee.org>

IEEE 802.3 Treasurer: Valerie Maguire <valerie_maguire@siemon.com>

IEEE 802.3 Task Force chairs

IEEE P802.3bt DTE Power via MDI over 4-Pair: Chad Jones <cmjones@cisco.com>

IEEE P802.3ca 25 Gb/s, 50 Gb/s, and 100 Gb/s EPON: Curtis Knittle <c.knittle@cablelabs.com>

IEEE P802.3cb 2.5 Gb/s and 5 Gb/s Backplane Cables: Dan Smith <daniel.f.smith@seagate.com>

IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet: Mark Nowell <mnowell@cisco.com>

IEEE P802.3.2 (IEEE 802.3cf) YANG Data Model: Yan Zhuang <zhuangyan.zhuang@huawei.com>

IEEE P802.3cg 10 Mb/s Single Pair Ethernet: George Zimmerman <george@cmephyconsulting.com>

IEEE P802.3ch Multi-Gig Automotive Ethernet PHY: Steve Carlson <scarlson@ieee.org>

IEEE P802.3ck 100 Gb/s, 200 Gb/s, and 400 Gb/s Electrical Interfaces: Elizabeth Kochuparambil <edonnay@cisco.com>

IEEE P802.3cm 400 Gb/s over Multimode Fiber: Robert Lingle <rlingle@ofsoptics.com>

IEEE 802.3 Study Group chairs

IEEE 802.3 Beyond 10km Optical PHYs (acting): John D'Ambrosia <jdambrosia@ieee.org>

IEEE 802.3 Bidirectional 10 Gb/s and 25 Gb/s Optical Access PHYs Frank Effenberger <frank.effenberger@huawei.com>

Preliminary IEEE 802.3 Meeting Plan

Always check on-line schedule for latest updates

	Sun	Mon	Tue	Wed	Thu
AM		IEEE P802.3cd IEEE 802.3 Opening Plenary	IEEE P802.3ca IEEE P802.3cd IEEE P802.3cg	SCC18 ad hoc IEEE P802.3ca IEEE P802.3ch IEEE P802.3ck IEEE P802.3cm	IEEE P802.3ca IEEE P802.3ch IEEE P802.3ck
PM		IEEE P802.3cd IEEE P802.3.2 IEEE P802.3cg BIDIR SG	PAR review ad hoc Maintenance IEEE P802.3ca IEEE P802.3cg IEEE P802.3cm	IEEE P802.3bt IEEE P802.3ca IEEE P802.3ch IEEE P802.3ck B10K SG	IEEE 802.3 Closing Plenary
			Super-PON CFI 50 Gb/s BIDIR CFI		
		NEA: Passive Optical Networking (PON)			

B10K SG: IEEE 802.3 Beyond 10 km Optical PHYs Study Group
BIDIR SG: IEEE 802.3 Bidirectional 10 Gb/s and 25 Gb/s Optical Access PHYs Study Group
Super-PON CFI: Ethernet Access PMDs for Central Office Consolidation (Super-PON) CFI
50 Gb/s BIDIR CFI: Bidirectional 50Gb/s optical access PHYs CFI