IEEE 802.3 Working Group
March 2017 Plenary Week

David Law
Chair, IEEE 802.3 Working Group
dlaw@hpe.com

Web site: www.ieee802.org/3

Current IEEE 802.3 activities

- IEEE 802.3 Task Forces
  - IEEE P802.3bs 200 Gb/s and 400 Gb/s Ethernet
  - IEEE P802.3bt DTE Power via MDI over 4-Pair
  - IEEE P802.3bu 1-Pair Power over Data Lines (PoDL)
  - 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 P802.3cc 25 Gb/s Ethernet over Single-Mode Fiber
  - IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet
  - IEEE P802.3-2015/Cor 1 (IEEE 802.3ce) Multilane timestamping
  - IEEE P802.3.2 (IEEE 802.3cf) YANG data models
  - IEEE P802.3cg 10 Mb/s Single Twisted Pair Ethernet
- IEEE 802.3 Study Groups
  - IEEE 802.3 Multi-Gig Automotive Ethernet PHY
- IEEE 802.3 Industry Connection activity
  - IEEE 802.3 New Ethernet Applications Ad Hoc

IEEE 802.3 Maintenance

- Meeting plan
  - Consider new maintenance requests
  - Reviewing status of outstanding maintenance requests
  - IEEE P802.3-2015/Cor 1 (IEEE 802.3ce) Multilane timestamping
    - Last met during a January 2017 interim
    - Draft D2.1 sent out for 1st Sponsor recirculation ballot
      - Ballot passed with 100% approval and no comments
    - Prepare for request to proceed to RevCom submittal
  - ISO/IEC JTC1 SC6 adoptions under PSDO agreement
    - Submission of IEEE 802.3 drafts for review
    - Submission of IEEE 802.3 standards for adoption
    - Response to comments on adoption of IEEE 802.3 standards
  - Consider any other maintenance business
- Web page
  - http://www.ieee802.org/3/maint/index.html

IEEE P802.3bs 200 Gb/s and 400 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 200 Gb/s over single-mode fiber and 400 Gb/s over optical physical media

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

Status

Last met during the January 2017 interim meeting series

Draft D3.0 sent out for Initial sponsor ballot

Closed successfully exceeding the required 75% for consensus

Meeting plan

Co-located interim afternoon of Sunday prior to plenary

Consideration of comments received against draft D3.0

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. The project will augment the methodology for the provision of power via balanced cabling to connected Data Terminal Equipment with 802.3 interfaces. 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. Compatibility with existing equipment will be maintained

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

Status

Last met during the January 2017 interim meeting series

Draft D2.3 sent out for 3rd Working Group recirculation ballot

Meeting plan

Consideration of comments received against draft D2.3

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 2017 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 a February 2017 Task Force interim

Draft D2.3 sent out for 3rd Working Group recirculation ballot

Meeting plan

Consideration of comments received against draft D2.3

Prepare for request to proceed to Sponsor ballot

IEEE P802.3cc 25 Gb/s Ethernet over Single-Mode Fiber Task Force

Description

Provide an amendment to the IEEE 802.3 Ethernet standard to add point-to-point single-mode fiber Physical Medium Dependent (PMD) options for serial 25 Gb/s operation at reaches greater than 100 m

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

Status

Last met during a February 2017 Task Force interim

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 P802.3cd 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 January 2017 interim meeting series

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

Meeting plan

Consideration of comments received against draft D1.2

Continue towards technically complete draft for working group ballot

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 January 2017 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 P802.3cg 10 Mb/s Single Twisted 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, on single balanced twisted-pair copper cabling

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

Status

IEEE 802.3cg PAR approved by IEEE-SA Standards Board

Approval date 7th December 2016

First meeting during the January 2017 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 Multi-Gig Automotive Ethernet PHY Study Group

Description

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Multi-Gig Automotive Ethernet PHY

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

Status

Last met during a February 2017 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 802.3ch Standard for Ethernet Amendment: Physical Layer Specifications and Management Parameters for greater than 1 Gb/s Automotive Ethernet

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

Activity re-chartered on 7th December 2016

Last met during the January 2017 interim meeting series

Meeting plan

Two session on Tuesday evening

Next-Generation multimode Fibre (MMF) PMD

100Gb/s Electrical Signaling Over Copper and 800 Gb/s Ethernet

Note: Beyond 10km optical PMDs not meeting

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 P802.3bs 200 Gb/s and 400 Gb/s Ethernet: John D'Ambrosia <jdambrosia@ieee.org>

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 P802.3cc 25 Gb/s Ethernet over Single-Mode Fiber: David Lewis <David.Lewis@lumentum.com>

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

IEEE 802.3.2 (IEEE 802.3cf) YANG Data Model: Yan Zhuang <zhuangyan.zhuang@huawei.com>

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

IEEE 802.3 Study Group chairs

IEEE 802.3 Multi-Gig Automotive Ethernet PHY: Steve Carlson <scarlson@ieee.org>

Preliminary IEEE 802.3 Meeting Plan

	Sun	Mon	Tue	Wed	Thu
AM		IEEE P802.3cd IEEE 802.3 Opening Plenary	Maintenance IEEE P802.3bt IEEE P802.3ca IEEE P802.3cd IEEE P802.3cg IEEE P802.3.2	MGAE SG IEEE P802.3bs IEEE P802.3bt IEEE P802.3ca IEEE P802.3cc IEEE P802.3cg	IEEE P802.3bs IEEE P802.3bt IEEE P802.3ca IEEE P802.3cg
PM	IEEE P802.3bs	IEEE P802.3bt IEEE P802.3cd IEEE P802.3cg IEEE P802.3.2	IEEE P802.3bt IEEE P802.3ca IEEE P802.3cd IEEE P802.3cg	MGAE SG IEEE P802.3bs IEEE P802.3bt IEEE P802.3ca IEEE P802.3cc IEEE P802.3cg	IEEE 802.3 Closing Plenary
			IEEE 802.3 NEA		

MGAE SG: IEEE 802.3 10 Mb/s Single Twisted Pair Ethernet Study Group

NEA: New Ethernet Applications ad hoc: Next-Generation multimode Fibre (MMF) PMD; 100Gb/s Electrical Signaling Over Copper and 800 Gb/s Ethernet