

IEEE 802.3 Working Group March 2016 Plenary Week

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Current IEEE 802.3 activities

IEEE 802.3 Task Forces

- IEEE P802.3bn EPON Protocol over Coax (EPoC)
- IEEE P802.3bp 1000BASE-T1 PHY
- IEEE P802.3bq 25G/40GBASE-T
- IEEE P802.3br Interspersing Express Traffic
- IEEE P802.3bs 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 P802.3bv Gigabit Ethernet Over Plastic Optical Fiber
- IEEE P802.3by 25 Gb/s Ethernet
- IEEE P802.3bz 2.5G/5GBASE-T
- 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 and Copper Cables

IEEE 802.3 Study Groups

- IEEE 802.3 50 Gb/s Ethernet over a Single Lane, Next Generation 100 Gb/s and 200 Gb/s Ethernet
- IEEE 802.3 200 Gb/s Ethernet single-mode
- IEEE 802.3 25 Gb/s Ethernet PMD(s) for Single Mode Fiber

IEEE 802.3 Industry Connection activity

- Next Generation Enterprise/Campus/Data Center Ethernet Ad Hoc

IEEE 802.3 Call for Interest

- Ethernet YANG models

IEEE 802.3 Maintenance

Meeting plan

- Consider new maintenance requests

- Reviewing status of outstanding maintenance requests

- Consider any other maintenance business

Web page

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

IEEE P802.3bn EPON Protocol over Coax (EPoC) Task Force

Description

Provide an amendment to the IEEE 802.3 Ethernet standard to add physical layer specifications and management parameters for symmetric and/or asymmetric operation of up to 10 Gb/s on point-to-multipoint Radio Frequency (RF) distribution plants comprising either amplified or passive coaxial media. It also extends the operation of Ethernet Passive Optical Networks (EPON) protocols, such as MultiPoint Control Protocol (MPCP) and Operation Administration and Management (OAM)

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

Status

Draft D3.0 sent out for Initial sponsor ballot

Last met during a February 2016 interim meeting

Consideration of comments received against draft D3.0

Meeting plan

Complete consideration of comments received against draft D3.0

IEEE P802.3bp

1000BASE-T1 Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 to add a point-to-point 1 Gb/s Physical Layer (PHY) specifications and management parameters for operation over a single twisted pair copper cables.

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

Status

Last met during a February 2016 Task Force interim
Draft D3.2 sent out for 2nd Sponsor recirculation ballot

Meeting plan

Consideration of comments received against draft D3.2
Prepare for request to proceed to RevCom submittal

IEEE P802.3bq

25G/40GBASE-T Task Force

Description

Specify Physical Layers (PHYs) for operation at 25 Gb/s and 40 Gb/s on balanced twisted-pair copper cabling, using existing Media Access Control, and with extensions to the appropriate physical layer management parameters.

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

Status

Last met during the January 2016 interim meeting series
Draft D3.1 sent out for 1st Sponsor recirculation ballot

Meeting plan

Consideration of comments received against draft D3.1
Prepare for request to proceed to RevCom submittal

IEEE P802.3br

Interspersing Express Traffic Task Force

Description

Specify additions to and appropriate modifications of IEEE Std 802.3 to add support for interspersing express traffic over a single physical link.

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

Status

Last met during the January 2016 interim meeting series

Draft D3.0 sent out for Initial sponsor ballot

Meeting plan

Consideration of comments received against draft D3.0

IEEE P802.3bs

400Gb/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 400 Gb/s

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

Status

Last met during the January 2016 interim meeting series

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

Meeting plan

Consideration of comments received against draft D1.2

Continue work towards technically complete draft for working group ballot

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. Compatibility with existing equipment will be maintained.

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

Status

Last met during a January 2016 Task Force interim

Draft D1.6 sent out for 9th Task Force review

Completed PAR modification request (see below for details)

IEEE P802.3bt DTE Power via MDI over 4-Pair Task Force (con't)

Meeting plan

Consideration of comments received against draft D1.6

Continue work towards technically complete draft for working group ballot

Seek approval for PAR modification request submission to NesCom

Summary of modification

During the development of this project new features are being defined for 4-pair operation. This modification will permit some of these features to be defined for new 2-pair operation as well.

Draft PAR modification request

<http://ieee802.org/3/bt/P802_3bt_PAR_Jan_21_16.pdf>

Unmodified (grandfathered 5 Criteria) CSD responses

<http://ieee802.org/3/bt/P802d3bt_5Criteria.pdf>

IEEE P802.3bu 1-Pair Power over Data Lines (PoDL) Task Force

Description

Single twisted pair Ethernet links are in development (e.g. IEEE P802.3bp) and some applications (e.g., automotive sensors, industrial devices) require power delivery over the link. A new standard is required to provide power over single twisted pair links where IEEE Std 802.3 Clause 33 Data Terminal Equipment (DTE) Power via Media Dependent Interface (MDI) cannot be used.

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

Status

Last met during a January 2016 Task Force interim

Draft D2.1 sent out for 1st Working Group recirculation ballot

Meeting plan

Consideration of comments received against draft D2.1

IEEE P802.3bv Gigabit Ethernet Over Plastic Optical Fiber Task Force

Description

Specify an amendment to the IEEE 802.3 Ethernet standard to add physical layer (PHY) specifications for operation at 1000 Mb/s using standardized plastic optical fiber as the point-to-point data transmission medium.

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

Status

Last met during the January 2016 interim meeting series
Draft D2.0 sent out for Initial Working Group ballot

Meeting plan

Consideration of comments received against draft D2.0

IEEE P802.3by

25 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 25 Gb/s for server to switch interconnections.

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

Status

Last met during the January 2016 interim meeting series
Draft D3.1 sent out for 1st Sponsor recirculation ballot

Meeting plan

Consideration of comments received against draft D3.1
Prepare for request to proceed to RevCom submittal

IEEE P802.3bz

2.5G/5GBASE-T Task Force

Description

Define Ethernet Media Access Control (MAC) parameters, physical layer specifications, and management objects for the transfer of Ethernet format frames at 2.5 Gb/s and 5 Gb/s over balanced twisted pair transmission media used in structured cabling.

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

Status

Last met during the January 2016 interim meeting series

Draft D2.0 sent out for Initial Working Group ballot

Meeting plan

Consideration of comments received against draft D2.0

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

IEEE P802.3ca PAR approved by IEEE-SA Standards Board

Approval date 5th December 2015

First meeting during the January 2016 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 and Copper Cables 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

IEEE P802.3cb PAR approved by IEEE-SA Standards Board

Approval date 5th December 2015

First meeting during the January 2016 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 50 Gb/s Ethernet over a single-lane, next generation 100 Gb/s and 200 Gb/s Ethernet Study Group

Description

Develop Project Authorization Request (PAR) and Criteria for Standards Development (CSD) for 50 Gb/s Ethernet over a single-lane, next generation 100 Gb/s and 200 Gb/s Ethernet

Web site: <<http://ieee802.org/3/50G/index.html>>

Status

First meeting during the January 2016 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 P802.3cd Standard for Ethernet Amendment: 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

IEEE 802.3 50 Gb/s Ethernet over a single-lane, next generation 100 Gb/s and 200 Gb/s Ethernet Study Group

Scope of proposed project

Define Ethernet Media Access Control (MAC) parameters, Physical Layer specifications, and management parameters, as needed, for the transfer of Ethernet format frames at 50 Gb/s, 100 Gb/s, and 200 Gb/s.

Draft PAR

<http://ieee802.org/3/50G/public/50G_NGOATH_PAR_0116.pdf>

Draft CSD

<http://ieee802.org/3/50G/public/CSD_50G_NGOATH_01_0116.pdf>

Draft Objectives

<http://ieee802.org/3/50G/public/objectives_50G_NGOATH_01a_0116.pdf>

IEEE 802.3 IEEE 802.3 200 Gb/s Ethernet single-mode Study Group

Description

Develop Project Authorization Request (PAR) and Criteria for Standards Development (CSD) for 200 Gb/s Ethernet single-mode

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

Status

First meeting during the January 2016 interim meeting series

Completed draft objectives, CSD and PAR modifications to add 200 Gb/s Ethernet single-mode to IEEE P802.3bs project

Meeting plan

Progress approval of IEEE P802.3bs objectives, CSD and PAR modifications

IEEE 802.3 IEEE 802.3 200 Gb/s Ethernet single-mode Study Group

Summary of modification

The development of 200 Gb/s Ethernet physical layer specifications equivalent to the existing 400 Gb/s Ethernet specifications is being added to this project.

Draft PAR

<http://www.ieee802.org/3/50G/public/NGAOTH_802d3bs_PAR_modification_0116.pdf>

Draft CSD

<http://www.ieee802.org/3/50G/public/NGAOTH_802d3bs_CSD_modification_0116.pdf>

Draft Objectives

<http://www.ieee802.org/3/50G/public/objectives_50G_NGOATH_01a_0116.pdf>

IEEE 802.3 25 Gb/s Ethernet PMD(s) for Single Mode Fiber Study Group

Description

Develop Project Authorization Request (PAR) and Criteria for Standards Development (CSD) for 25 Gb/s Ethernet PMD(s) for single mode fiber

Web site: <<http://ieee802.org/3/25GSMF/index.html>>

Status

First meeting during the January 2016 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 P802.3cc Standard for Ethernet Amendment: Physical Layer and Management Parameters for Serial 25 Gb/s Ethernet Operation Over Single-Mode Fiber

IEEE 802.3 25 Gb/s Ethernet PMD(s) for Single Mode Fiber Study Group (con't)

Scope of proposed project

The scope of this project is to add single-mode fiber Physical Medium Dependent (PMD) options for serial 25 Gb/s operation by specifying additions to, and appropriate modifications of, IEEE Std 802.3-2015 as amended by the IEEE P802.3by project.

Draft PAR

<http://ieee802.org/3/25GSMF/law_25gsmf_01_0116.pdf>

Draft CSD

<http://ieee802.org/3/25GSMF/lewis_25gsmf_02b_0116.pdf>

Draft Objectives

<http://ieee802.org/3/25GSMF/lewis_25gsmf_01a_0116.pdf>

IEEE 802.3 Next Generation Enterprise/ Campus/Data Center Ethernet Ad Hoc

Description

The goal of this activity is to assess emerging requirements for enterprise, campus, and data center networks, 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

First meetings during the January 2016 interim meeting series

Meeting plan

IEEE 802.3 Ethernet YANG Models meeting

Single Pair BASE-T Extended Reach meeting

Extended Reach 400 Gb/s Ethernet PMD meeting

IEEE 802.3 Ethernet YANG models Call for Interest

YANG is the corner-stone for the reliable, transaction-oriented and vendor-independent network management scheme, providing functionality and operational consistency across different platforms, vendors, and implementations. YANG models for 802.3 interfaces will provide all the statistics, state information, and configuration hooks for 802.3 Ethernet PHYs, providing the natural extension of existing SNMP/MIB-based management schemes. The IEEE 802.3 YANG call for interest will request the formation of a study group to explore the market demand, modeling scope and its technical feasibility.

This request for agenda time for this CFI has been received from Yan Zhuang <zhuangyan.zhuang@huawei.com>

IEEE 802.3 Officers

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IEEE 802.3 Task Force chairs

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IEEE P802.3bp 1000BASE-T1: Steve Carlson <scarlson@hspdesign.com>

IEEE P802.3bq 25G/40GBASE-T: Dave Chalupsky <david.chalupsky@intel.com>

IEEE P802.3br Interspersing Express Traffic: Ludwig Winkel <ludwig.winkel@siemens.com>

IEEE P802.3bs 400 Gb/s Ethernet: John D'Ambrosia <john_dambrosia@dell.com>

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

IEEE P802.3bu 1-Pair Power over Data Lines (PoDL): Dan Dove <dan_dove@ieee.org>

IEEE P802.3bv Gigabit Ethernet Over Plastic Optical Fiber: Bob Grow <bob.grow@ieee.org>

IEEE P802.3by 25 Gb/s Ethernet: Mark Nowell <mnowell@cisco.com>

IEEE P802.3bz 2.5G/5GBASE-T: Dave Chalupsky <david.chalupsky@intel.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 and Copper Cables: Yong Kim <ybkim@broadcom.com>

IEEE 802.3 Study Group chairs

IEEE 802.3 50 Gb/s, next generation 100 Gb/s and 200 Gb/s Ethernet Study Group: Mark Nowell <mnowell@cisco.com>

IEEE 802.3 200 Gb/s Ethernet single-mode Study Group: Mark Nowell <mnowell@cisco.com>

IEEE 802.3 25 Gb/s Ethernet PMD(s) for Single Mode Fiber: David Lewis <David.Lewis@lumentum.com>

Preliminary IEEE 802.3 Meeting Plan

	Sun	Mon	Tue	Wed	Thu
AM		IEEE P802.3by IEEE 802.3 Opening Plenary	IEEE P802.3bq/bz IEEE P802.3bs IEEE P802.3bt/bu IEEE P802.3bv IEEE P802.3ca IEEE P802.3cb	IEEE P802.3br IEEE P802.3bt/bu IEEE P802.3bv IEEE P802.3ca IEEE P802.3cb	IEEE P802.3bn IEEE P802.3br IEEE P802.3bs IEEE P802.3bt IEEE P802.3bv 50G100G200G
PM		IEEE P802.3bq/bz IEEE P802.3bs IEEE P802.3bu IEEE P802.3bv IEEE P802.3by IEEE P802.3ca 25GSMF	IEEE P802.3bq/bz IEEE P802.3bs IEEE P802.3bt/bu IEEE P802.3bv IEEE P802.3ca IEEE P802.3cb Maintenance 50G100G200G	IEEE P802.3bn IEEE P802.3bp IEEE P802.3br IEEE P802.3bt/bu IEEE P802.3bv IEEE P802.3cb 25GSMF 50G100G200G	IEEE 802.3 Closing Plenary
		YANG Models Long reach single pair PHYs Extended Reach 400G PMD	YANG models CFI	25GSMF: IEEE 802.3 25 Gb/s Ethernet PMD(s) for Single Mode Fiber Study Group 50G100G200G: IEEE 802.3 50 Gb/s Ethernet over a Single Lane, Next Generation 100 Gb/s and 200 Gb/s Ethernet Study Group	