

IEEE 802.3 Working Group March 2013 Plenary Week

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Web site: www.ieee802.org/3

Current IEEE 802.3 activities

- Task Forces
 - IEEE P802.3.1 (IEEE 802.3.1a) Ethernet MIB (Revision)
 - IEEE P802.3bj 100 Gb/s Backplane and Copper
 - IEEE P802.3bk Extended Ethernet Passive Optical Network (EPON)
 - IEEE P802.3bm 40Gb/s and 100Gb/s Operation over Fibre Optic cable
 - IEEE P802.3bn EPON Protocol over a Coax (EPoC)
 - IEEE P802.3bp Reduced Twisted Pair Gigabit Ethernet PHY
- Study Groups
 - IEEE 802.3 Next Generation BASE-T
 - IEEE 802.3 Distinguished Minimum Latency Traffic
- Call for Interest
 - 400 Gb/s Ethernet
 - 4-pair Power over Ethernet
- Ad Hoc
 - IEEE 802.3 Higher Speed Ethernet Consensus Ad Hoc

IEEE 802.3 Maintenance

- Meeting plan
 - Consider new maintenance requests
 - Reviewing status of outstanding maintenance requests
 - Submission of IEEE Std 802.3-2012 for adoption by ISO/IEC JTC1 SC6 under PSDO agreement
 - Consider any other maintenance business
- Web page
<http://www.ieee802.org/3/maint/index.html>

IEEE P802.3.1 Ethernet MIB

Revision Task Force

- Description
 - The IEEE P802.3.1 Task Force is developing a revision to the IEEE Std 802.3.1 Ethernet MIBs base standard to update the GDMO and SMIv2 MIB module definitions to reflect the changes from recent IEEE Std 802.3 amendments, IEEE Std 802.3at-2009, IEEE Std 802.3av-2009, IEEE Std 802.3bc-2009, IEEE 802.3az-2010, IEEE Std 802.3ba-2010, IEEE Std 802.3bf-2011, IEEE Std 802.3bg-2011 and IEEE Std 802.3bd-2011
 - Web page: <http://www.ieee802.org/3/1/index.html>
- Status
 - Met during the January 2013 interim meeting series
 - Draft D2.1 sent out for 1st Sponsor recirculation ballot
 - 1st Sponsor recirculation ballot closed 7th March 2013
- Meeting plan
 - Consideration of comments received against draft D2.1
 - Prepare for request to proceed to RevCom submittal

IEEE P802.3bj 100 Gb/s Backplane and Copper Cable Task Force

- Description
 - Provide an amendment to the IEEE 802.3 Ethernet standard to specify 100 Gb/s 4 lane operation on backplanes and twinaxial copper cables.
 - Web site: <<http://www.ieee802.org/3/bj/index.html>>
- Status
 - Met during the January 2013 interim meeting series
 - Draft D1.4 sent out for 5th Task Force review
 - Draft D1.4 also to be submitted for Working Group preview
- Meeting plan
 - Consideration of comments received against draft D1.4
 - Prepare for request to proceed to Working Group ballot

IEEE P802.3bk Extended Ethernet Passive Optical Networks (EPON) Task Force

- Description
 - Provide an amendment to the IEEE 802.3 Ethernet standard to specify extensions to the optical loss budgets supported by Ethernet Passive Optical Networks (EPON) to support higher density and longer reach applications, while optimizing costs of ownership
 - Web site: <<http://www.ieee802.org/3/bk/index.html>>
- Status
 - Met during the January 2013 interim meeting series
 - Draft D2.1 sent out for 1st Working Group recirculation ballot
- Meeting plan
 - Consideration of comments received against draft D2.1
 - Prepare for request to proceed to Sponsor ballot

IEEE P802.3bm 40 Gb/s and 100 Gb/s Operation Over Fiber Optic Cables Task Force

- Description
 - Provide an amendment to the IEEE 802.3 Ethernet standard to add 100 Gb/s Physical Layer (PHY) specifications using a four-lane electrical interface for operation on multimode and single-mode fiber optic cables and 40 Gb/s Physical Layer (PHY) specifications for operation on extended reach (> 10 km) single-mode fiber optic cables
 - Web site: <<http://www.ieee802.org/3/bm/index.html>>
- Status
 - Met during the January 2013 interim meeting series
 - Selecting set of baseline proposals to satisfy project objectives
 - Completed PAR modification request (see below for details)
- Meeting plan
 - Continue to work on selection of a set of baseline proposals
 - Seek approval for PAR modification request submission to NesCom

IEEE P802.3bm 40 Gb/s and 100 Gb/s Operation Over Fiber Optic Cables Task Force (con't)

- PAR Modification Request
 - Summary of modification request
 - This PAR modification adds Energy-efficient Ethernet support for both 40 Gb/s and 100 Gb/s operation over fiber optic cables to the scope of this project.
 - Draft PAR modification request
 - http://www.ieee802.org/3/bm/P802_3bm_PAR_0113.pdf
 - Draft updated 5C
 - http://www.ieee802.org/3/bm/P802_3bm_PAR_0113.pdf
 - Draft updated Objectives
 - http://www.ieee802.org/3/bm/P8023bm_Objectives_1112.pdf

IEEE 802.3bn 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
 - Met during the January 2013 interim meeting series
 - Selecting set of baseline proposals to satisfy project objectives
- Meeting plan
 - Continue selecting set of baseline proposals to satisfy objectives

IEEE P802.3bp Reduced Twisted Pair Gigabit Ethernet PHY Task Force

- Description
 - Provide an amendment to 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 on fewer than three pairs of twisted copper cables
 - Web site: <<http://www.ieee802.org/3/bp/index.html>>
- Status
 - IEEE P802.3bp PAR approved by IEEE-SA Standards Board
 - Approval date 5th December 2012
 - First meeting during January 2013 interim meeting series
- Meeting plan
 - Selecting set of baseline proposals to satisfy objectives

IEEE 802.3 Next Generation BASE-T Study Group

- Description
 - Study Group to develop a PAR and 5 Criteria for Next Generation BASE-T PHY
 - Web page: <http://www.ieee802.org/3/NGBASET/index.html>
- Status
 - Met during January 2013 interim meeting series
 - Completed objectives, PAR and 5 Criteria for proposed project
- Meeting plan
 - Progress approval of Objectives, 5 Criteria and NesCom submittal of PAR for IEEE P802.3bp Amendment: Physical Layer and Management Parameters for 40 Gb/s Operation, Type 40GBASE-T

IEEE 802.3 Next Generation BASE-T Study Group (con't)

- Draft PAR
 - Scope of project
 - Specify a Physical Layer (PHY) for operation at 40 Gb/s on balanced twisted-pair copper cabling, using existing Media Access Control, and with extensions to the appropriate physical layer management parameters.
 - Draft PAR
 - http://www.ieee802.org/3/NGBASET/P802_3bq_PAR_Detail.pdf
 - Draft 5C
 - http://www.ieee802.org/3/NGBASET/5C_020813_NGBT.pdf
 - Draft Objectives
 - http://www.ieee802.org/3/NGBASET/objectives_draft_ngbt_0113.pdf

IEEE 802.3 Distinguished Minimum Latency Traffic (DMLT) Study Group

- Description
 - Study Group to develop a PAR & 5 Criteria for Distinguished minimum latency traffic in a converged traffic environment
 - Web page: <http://www.ieee802.org/3/DMLT/index.html>
- Status
 - First meeting during January IEEE 802.3 Interim series week
 - Initial development of draft objectives, 5 Criteria and PAR
- Meeting plan
 - Continue developing draft objectives, 5 Criteria and PAR

400 Gb/s Ethernet call for interest

- In July 2012 the IEEE 802.3 Industry Connections Ethernet Bandwidth Assessment forecast that networks, on average, would need to support 58% compound annual growth rates. Such growth rates would force the use of solutions aggregating or bundling multiple 100GbE links, whose capability would be quickly exceeded by the noted growth rate. The development of a 400GbE solution would provide the next step for the industry to deal with an ever increasing exponential bandwidth growth rate. This call for interest is to request the formation of a 400 Gigabit Ethernet Study Group (400GbESG) to begin this effort.
- This request for agenda time for this CFI has been received from John D'Ambrosia <john_dambrosia@dell.com>

4-pair Power over Ethernet call for interest

- Power over Ethernet (PoE) has become the preferred method to power networked devices, such as IP phones and access points. It has also enabled many new types of network devices. PoE systems will benefit from a 4-pair solution in multiple ways, for instance, better energy efficiency than 2-pair PoE system and the ability to provide greater than 25.5 Watts of power to systems. This call for interest is to request the formation of a "4-pair Power over Ethernet" study group to start this effort.
- This request for agenda time for this CFI has been received from Koussalya Balasubramanian <kobalasu@cisco.com>

IEEE 802.3 Officers

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

IEEE 802.3 Vice Chair: Wael William Diab <wdiab@broadcom.com>

IEEE 802.3 Secretary: Adam Healey <adam.healey@lsi.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 P802.3.1 (IEEE 802.3.1a) Ethernet MIBs (revision): Howard Frazier <hfrazier@broadcom.com>

IEEE P802.3bj 100 Gb/s Backplane and Copper: John D'Ambrosia <jdambrosia@ieee.org>

IEEE P802.3bk Extended Ethernet Passive Optical Network: Marek Hajduczenia <marek.hajduczenia@zte.pt>

IEEE P802.3bm 40Gb/s and 100 Gb/s Optical Ethernet: Dan Dove <ddove@apm.com>

IEEE P802.3bn EPON Protocol over a Coax (EPoC): Mark Laubach <laubach@broadcom.com>

IEEE P802.3bp Reduced Twisted Pair Gigabit Ethernet (RTPGE): Steve Carlson <scarlson@hspdesign.com>

IEEE 802.3 Study Group chairs

IEEE 802.3 Next Generation BASE-T: Bill Woodruff <billw@broadcom.com>

IEEE 802.3 Distinguished Minimum Latency Traffic (DMLT) <ludwig.winkel@siemens.com>

Preliminary IEEE 802.3 Meeting Plan

	Mon	Tue	Wed	Thu
AM		IEEE P802.3bj IEEE P802.3bk IEEE P802.3bm IEEE P802.3bn IEEE P802.3bp NGBT_SG DMLT_SG	IEEE P802.3bj IEEE P802.3bk IEEE P802.3bm IEEE P802.3bn IEEE P802.3bp NGBT_SG DMLT_SG	IEEE P802.3.1 IEEE P802.3bj IEEE P802.3bk IEEE P802.3bm IEEE P802.3bn IEEE P802.3bp NGBT_SG DMLT_SG
PM	IEEE 802.3 Opening Plenary	Maintenance IEEE P802.3bj IEEE P802.3bk IEEE P802.3bm IEEE P802.3bn IEEE P802.3bp NGBT_SG DMLT_SG	IEEE P802.3bj IEEE P802.3bk IEEE P802.3bm IEEE P802.3bn IEEE P802.3bp NGBT_SG DMLT_SG	IEEE 802.3 Closing Plenary
		400 Gb/s Ethernet CFI		
		4-pair Power over Ethernet CFI		

NGBT_SG
 DMLT_SG

IEEE 802.3 Next Generation Base-T Study Group
 IEEE 802.3 Distinguished Minimum Latency Traffic Study Group

IEEE 802.3 Standards

- IEEE Std 802.3™-2012 (30 Aug 12 / 28 Dec 12)
- IEEE Std 802.3.1™-2011 (16 May 11 / 5 Jul 11)*

* Available through Get IEEE 802
<http://standards.ieee.org/getieee802/802.3.html>

Note 1: Dates are Approval date / Publication date

Current project drafts

- IEEE P802.3.1/D2.1 (IEEE 802.3.1a) Ethernet MIBs (revision)
 - First Sponsor recirculation ballot draft
- IEEE P802.3bk/D2.1 Extended Ethernet Passive Optical Networks
 - First Working Group recirculation ballot draft
- IEEE P802.3bj/D1.4 100 Gb/s Backplane and Copper Cable
 - Working Group preview draft