

IEEE 802.3 Working Group July 2009 Plenary Week

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Current IEEE 802.3 activities

- IEEE P802.3at DTE Power Enhancements
- IEEE P802.3av 10 Gb/s EPON
- IEEE P802.3az Energy Efficient Ethernet
- IEEE P802.3ba 40 Gb/s and 100 Gb/s Ethernet
- IEEE P802.3-2008/Cor 1 (IEEE 802.3bb) Pause Reaction Delay Corrigendum
- IEEE P802.3bc Ethernet Organizationally Specific TLVs
- IEEE P802.3bd MAC Control Frame for Priority-based Flow Control
(project is being undertaken by the IEEE 802.1 DCB Task Group)
- IEEE P802.3.1 (IEEE 802.3be) Ethernet MIB
- IEEE 802.3 Ethernet Support for the IEEE P802.1AS Time Synchronization Protocol Study Group

IEEE P802.3at DTE Power Enhancements

- Description
 - Increase the amount of power delivered over twisted pair copper from that specified by IEEE Std 802.3af-2003 (Clause 33 of IEEE Std 802.3)
 - At least 24 watts at powered device
 - Maintain compatibility with IEEE Std 802.3 Clause 33
 - Extended classification
- Meeting plan
 - Resolve 3 comments received on Sponsor recirculation ballot draft IEEE P802.3at/D4.2
 - Request approval to proceed to RevCom submittal
 - Conditional if a recirculation is required
 - Project contingent on IEEE P802.3bc Ethernet TLVs
 - Can only be approved at same time, or after, IEEE P802.3bc

IEEE P802.3av 10 Gb/s EPON

- Description
 - Define higher speed Ethernet passive optical network operation
 - 10 Gb/s downstream/1 Gb/s upstream, single SM fiber
 - 10 Gb/s downstream/10 Gb/s upstream, single SM fiber
 - Up to 3 power budgets that support 1:16 and 1:32 split ratios at distances of at least 10 and at least 20 km
- Meeting plan
 - Request approval to proceed to RevCom submittal
 - Sponsor recirculation ballot draft IEEE P802.3av/D3.4 received 100% approval with no comment

IEEE P802.3az Energy Efficient Ethernet

- Description

- Transition to and from low-power use state in response to network demand
- PHY energy efficiency enhancements for selected PHY types (twisted pair and backplane)
- Maximize transparency to higher layers
- Lower power 10BASE-T

- Meeting plan

- Working Group preview and preparation to request approval to proceed to Working Group ballot

IEEE P802.3ba 40 Gb/s & 100 Gb/s Ethernet

- Description
 - Define operation at 40 Gb/s & 100 Gb/s over adopted objectives for link media / distance
 - 40 Gb/s, at least: 1 m backplane, 10 m copper cable, 100 m OM3 multimode fiber, 10 km single mode fiber
 - 100 Gb/s, at least: 10 m copper cable, 100 m OM3 multimode fiber, 10 km single mode fiber, 40 km single mode fiber
- Meeting plan
 - Resolve comments on Working Group recirculation ballot draft IEEE P802.3ba/D2.1

IEEE 802.3 Maintenance

- Projects:
 - IEEE P802.3-2008/Cor 1 (IEEE 802.3bb) Pause Reaction Delay Corrigendum
 - Increase the Pause reaction delay value allocated to 10GBASE-T and 10GBASE-KR with FEC PHYs
 - IEEE P802.3bc, Ethernet Organizationally Specific TLVs
 - Transfer IEEE 802.3 Organizationally Specific type, length, values (TLVs) from IEEE Std 802.1AB to IEEE Std 802.3
- Meeting plan
 - Consider new maintenance requests
 - Resolve comments on Working Group recirculation ballot draft IEEE P802.3-2008/Cor 1 (IEEE 802.3bb)/D1.2
 - Resolve comments on initial Sponsor ballot draft IEEE P802.3bc/D3.0
 - Prepare to request conditional approval to proceed to RevCom submittal for IEEE P802.3bc

IEEE P802.3.1 Ethernet MIB

- Provide SMIv2 (SNMP) and GDMO MIB modules specifications for Ethernet
 - Transfer existing SMIv2 Ethernet MIBs from Internet Engineering Task Force (IETF)
 - Transfer existing GDMO Ethernet MIBs from IEEE Std 802.3
 - Add extensions resulting from recent amendments of IEEE Std 802.3
 - Transfer the Ethernet LLDP extension MIB module from IEEE Std 802.1AB
- Meeting plan
 - Continue to review draft

IEEE 802.3 Ethernet Support for the IEEE P802.1AS Time Synchronization Protocol Study Group

- Study group to examine IEEE 802.3 Support for IEEE 802.1AS Time and Synchronization.
 - The IEEE 802.1 Audio/Video Bridging (AVB) project has requested IEEE 802.3 support for IEEE 802.1AS Timing and Synchronization protocol. A project would be completing the work begun in the IEEE 802.3 Residential Ethernet project, subsequently transferred to IEEE 802.1 that became the Audio Video Bridging (AVB) project.
- Meeting plan
 - Develop PAR, 5 Criteria and Objectives for proposed project

10GBASE-CR1 Call for Interest

- This Call for Interest (CFI) proposes the use of IEEE P802.3ba Clause 85 (40GBASE-CR4 and 100GBASE-CR10) to specify 10GBASE-CR1, a low-cost physical layer copper option for 10 Gigabit Ethernet.
- The CFI is supported by individuals from companies in the telecommunications industry, who will demonstrate the market need, technical feasibility, and broad support for forming a Study Group.

IEEE 802.3 Officers

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IEEE P802.3at DTE Power Enhancements: Mike McCormack (mike_mccormack@ti.com)

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IEEE P802.3az Energy Efficient Ethernet: Mike Bennett (mjbennett@lbl.gov)

IEEE P802.3ba 40 Gb/s and 100 Gb/s Ethernet: John D'Ambrosia (jdambrosia@ieee.org)

IEEE 802.3 Maintenance: Wael Diab (wdiab@broadcom.com)

- IEEE 802.3 Maintenance request

- IEEE P802.3-2008/Cor 1 (IEEE 802.3bb) Pause Reaction Delay Corrigendum

- IEEE P802.3bc Ethernet Organizationally Specific TLVs

IEEE P802.3bd MAC Control Frame for Priority-based Flow Control

- This project is being undertaken by the IEEE 802.1 DCB Task Group

IEEE P802.3.1 (IEEE 802.3be) Ethernet MIB: Howard Frazier (hfrazier@broadcom.com)

IEEE 802.3 Ethernet Support for the IEEE P802.1AS Time Synchronization Protocol Study Group:
Steve Carlson (scarlson@ieee.org)

Preliminary Meeting Plan

	Mon	Tue	Wed	Thu
AM	LMSC Plenary	IEEE P802.3at IEEE P802.3av IEEE P802.3az IEEE P802.3ba	IEEE P802.3at IEEE P802.3az IEEE P802.3ba IEEE P802.3.1 IEEE 802.3 TSSG	IEEE P802.3at IEEE P802.3az IEEE P802.3ba IEEE 802.3 TSSG
PM	IEEE 802.3 Opening Plenary	IEEE P802.3at IEEE P802.3az IEEE P802.3ba IEEE 802.3 TSSG	IEEE P802.3at IEEE P802.3az IEEE P802.3ba IEEE 802.3 TSSG Maintenance	IEEE 802.3 Closing Plenary
	10GBASE-CR1 CFI	IEEE P802.3ba		

IEEE 802.3 TSSG

IEEE 802.3 Ethernet Support for the IEEE P802.1AS
Time Synchronization Protocol Study Group

IEEE 802.3 Standards

- IEEE Std 802.3TM-2008 (26 Dec 2008)*
- Superseded standards
 - IEEE Std 802.3TM-2005 (12 Dec 2005)
 - IEEE Std 802.3TM-2005/Cor 1-2006 (26 Jun 2006)
 - IEEE Std 802.3anTM-2006 (1 Sep 2006)
 - IEEE Std 802.3aqTM-2006 (16 Oct 2006)
 - IEEE Std 802.3asTM-2006 (13 Nov 2006)
 - IEEE Std 802.3apTM-2007 (22 May 2007)
 - IEEE Std 802.3TM-2005/Cor 2-2007 (17 Aug 2007)

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

Current project drafts

- IEEE P802.3at/D4.2 - DTE Power Enhancements
 - Sponsor recirculation ballot draft
- IEEE P802.3av/D3.4 – 10Gb/s EPON
 - Sponsor recirculation ballot draft
- IEEE P802.3az/D1.5 – Energy-efficient Ethernet
 - Working Group preview draft
- IEEE P802.3ba/D1.2 – 40Gb/s and 100Gb/s Ethernet
 - Working Group recirculation ballot draft
- IEEE P802.3-2008/Cor 1/D1.2 (IEEE 802.3bb) Pause Reaction Delay Corrigendum
 - Working Group recirculation ballot draft
- IEEE P802.3bc/D3.0 – Ethernet Organizationally Specific TLVs
 - Initial Sponsor ballot draft
- IEEE P802.3.1/D0.6 Ethernet MIB
 - Task Force review draft