IEEE 802.3 Working Group July 2011 Plenary Week

David Law

Chair, IEEE 802.3 Working Group

dlaw@hp.com

Web site: www.ieee802.org/3

Current IEEE 802.3 activities

- IEEE P802.3bd MAC Control Frame for Priority-based Flow Control
    Project being undertaken by the IEEE 802.1 DCB Task Group
- IEEE P802.3.1 (IEEE 802.3be) Ethernet MIB
- IEEE P802.3bf Time Synchronization
- IEEE P802.3bg 40Gb/s Ethernet Single-mode Fiber PMD
- IEEE P802.3 (IEEE 802.3bh) Maintenance #10 (Revision)
- IEEE 802.3 100 Gb/s Backplane and Copper Study Group
- IEEE 802.3 Ethernet Bandwidth Assessment Ad Hoc
- Next Generation 100Gb/s Ethernet Interfaces for Optical Fiber Call for Interest
- Extended Ethernet Passive Optical Network (EPON) PMDs Call for Interest

IEEE P802.3bf Time Synchronization Task Force

- Description
  - Provide an accurate indication of the transmission and reception initiation times of certain packets as required to support Time Synchronization protocols

- Status
  - The IEEE P802.3bf Task Force has completed its work with the approval of IEEE Std 802.3bf-2011 Media Access Control (MAC) service interface and management parameters to support time synchronization protocols by the IEEE-SA Standards Board on 16th May 2011

- Meeting plan
  - Closing report at the IEEE 802.3 opening plenary
  - Task Force will not meet

IEEE P802.3bg 40Gb/s Ethernet Single-mode Fiber PMD Task Force

- **Description**
  - Provide an amendment to the IEEE 802.3 standard to specify a 40Gb/s Ethernet Single-mode Fibre PMD optimized for client applications in the carrier environment

- **Status**
  - The IEEE P802.3bg Task Force has completed its work with the approval of IEEE Std 802.3bg-2011 Physical Layer and Management Parameters for Serial 40 Gb/s Ethernet Operation Over Single Mode Fiber by the IEEE-SA Standards Board on 31st March 2011.

- **Meeting plan**
  - Closing report at the IEEE 802.3 opening plenary
  - Task Force will not meet

IEEE P802.3.1 Ethernet MIB Task Force

- Description
  - 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
- Status
  - The IEEE P802.3.1 Task Force has completed its work on the base MIB standard with the approval of IEEE Std 802.3.1-2011 Management Information Base (MIB) Definitions for Ethernet by the IEEE-SA Standards Board on 16th May 2011
- Meeting plan
  - Closing report at the IEEE 802.3 opening plenary

IEEE P802.3.1 Ethernet MIB Revision Task Force

- Description
  - Revision to IEEE Std 802.3.1 GDMO and SMIv2 MIB modules to reflect changes from recent IEEE Std 802.3 amendments
    - IEEE Std 802.3at-2009, IEEE Std 802.3av-2009, IEEE Std 802.3bc-2009, IEEE Std 802.3bd-2011, IEEE 802.3az-2010, IEEE Std 802.3ba-2010, IEEE Std 802.3bf-2011 and IEEE std 802.3bg

- Status
  - The IEEE P802.3.1 Task Force has completed its work on the base MIB standard with the approval of IEEE Std 802.3.1-2011 Management Information Base (MIB) Definitions for Ethernet by the IEEE-SA Standards Board on 16th May 2011

- Meeting plan
  - Draft development

IEEE 802.3 100 Gb/s Backplane and Copper Study Group

- Description
  - Study Group for 100Gb/s Ethernet Electrical Backplane and Twinaxial Copper Cable Assemblies

- Meeting plan
  - Prepare to request approval of Objectives, 5 Criteria and NesCom submittal of PAR for IEEE P802.3bj Physical Layer specifications and Management parameters for 100 Gb/s operation over Backplanes and Copper Cable

IEEE 802.3 Ethernet Bandwidth Assessment Ad Hoc

- Description
  - Gathering information that will enable an evaluation of the bandwidth needs for Ethernet applications, including, but not limited to, core networking and computing
  - Role is to gather information
    - Not to make recommendations or initiate new project
- Status
  - Information gathering
  - Third teleconference held 29th June 2011
    - NYSE Euronext
- Meeting plan
  - Information gathering
    - Comcast, light counting

IEEE 802.3 Maintenance

- Meeting plan
  - Consider new maintenance requests
  - Consider outstanding maintenance requests
  - IEEE Std 802.3 revision plan
    - IEEE P802.3 (IEEE 802.3bh) Maint #10 (Revision)
      - Expect to pre-circulated draft prior to meeting
      - May make request to proceed to Working Group ballot

Next generation 100 Gb/s Ethernet interfaces for optical fiber modules Call for Interest

Front panel port density and bandwidth requirements are being driven upward by aggregation and computing applications. For the front panel, these applications will drive the need for lower power, lower cost, and narrower 100 Gb/s Ethernet interfaces for optical fiber modules than can be implemented with the interfaces currently defined by IEEE Std 802.3ba-2010. This Call for Interest will request the formation of a study group to explore the market need and solutions to reduce the cost, power and panel size of 100 Gb/s optical interfaces.

This Call for Interest has been received from Dan Dove <dan.dove@hp.com>

Extended EPON PMDs Call for Interest

Proliferation of the use of Ethernet Passive Optical Networks (EPON) as well as new emerging applications for this access technology create demand for higher power budget classes to address requirements for longer reach and/or increased split ratio. This Call For Interest will request the formation of a study group to explore the market demand, available technologies and definition of optical interface parameters for higher power EPON PMDs, building on top of existing EPON specifications, found in IEEE Std 802.3ah and IEEE Std 802.3av

This Call for Interest has been received from Marek Hajduczenia <marek.hajduczenia@zte.pt>

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 P802.3bd MAC Control Frame for Priority-based Flow Control
　　　This project is being undertaken by the IEEE 802.1 DCB Task Group
IEEE P802.3bf Time Synchronization: Steve Carlson (scarlson@ieee.org)
IEEE P802.3bg 40Gb/s Ethernet Single-mode Fiber PMD: Mark Nowell
(mnowell@ieee.org)

IEEE 802.3 100 Gb/s Backplane and Copper Study Group: John D'Ambrosia
(jdambrosia@ieee.org)

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

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

Preliminary Meeting Plan

	Mon	Tue	Wed	Thu
AM		Maintenance IEEE 802.3.1	IEEE 802.3 B&CSG	IEEE 802.3 B&CSG IEEE 802.3 BWA
PM	IEEE 802.3 Opening Plenary	Extend EPON CFI NextGen optics CFI	IEEE 802.3 B&CSG	IEEE 802.3 Closing Plenary

Extend EPON CFI   Extended EPON PMDs
NextGen optics CFI   Next generation 100 Gb/s Ethernet interfaces for optical fiber modules
IEEE 802.3 B&CSG   IEEE 802.3 100 Gb/s Backplane and Copper Study Group
IEEE 802.3 BWA   IEEE 802.3 Ethernet Bandwidth Assessment Ad Hoc

IEEE 802.3 Standards

- IEEE Std 802.3™-2008 (26 Dec 08 / 26 Dec 08)*

    - IEEE Std 802.3av™-2009 (11 Sep 09 / 30 Oct 09)*
    - IEEE Std 802.3bc™-2009 (11 Sep 09 / 28 Sep 09)*
    - IEEE Std 802.3at™-2009 (11 Sep 09 / 30 Oct 09)*
    - IEEE Std 802.3-2008/Cor1-2009™ (9 Dec 09 / 1 Feb 10)*
    - IEEE Std 802.3ba™-2010 (17 Jun 10 / 22 Jun 10)*
    - IEEE Std 802.3az™-2010 (30 Sep 10 / 27 Oct 10) *
    - IEEE Std 802.3bg™-2011 (31 Mar 11 / 31 Mar 11)
    - IEEE Std 802.3bf™-2011 (16 May 11 / 12 Jul 11[Note1])
    - IEEE Std 802.3bd™-2011 (16 Jun 11 / TBD)

- IEEE Std 802.3.1™-2011 (16 May 11 / 5 Jul 11[Note1])

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

Note 1: Dates are Approval date / Publication date
Note 2: Planned publication date (as of 30 Jun 2011)

Current project drafts

- None