Unapproved Minutes
IEEE P802.3bs 400 GbE Task Force
Interim Meeting
Jan 18-22, 2016
Atlanta, GA, USA

Table of Contents

IEEE P802.3bs Task Force Meeting – January 18, 2016:
Prepared by John D'Ambrosia

Convened at 9:00am, Chaired by John D'Ambrosia

Introductions were made.

Agenda & General Information
By – John D'Ambrosia
See - http://www.ieee802.org/3/bs/public/16_01/agenda_3bs_01a_0116.pdf
Chair reviewed the agenda.

Motion #1:
Move to approve the agenda
- Moved by: Steve Trowbridge
- Second by: Mark Gustlin
- Pass by voice vote without opposition

Chair noted that photography and recording not allowed without permission.

Chair called for members of the press or individuals reporting publically on the meeting to identify themselves. No one responded.

Chair continued with the introductory presentation.

Chair reminded attendees to observe decorum rules.

Chair reminded attendees to sign the book and sign into the IEEE Attendance tool.

Goals:
- Respond to 156 Comments against D1.1
- 17 Technical Presentations
- Approve generation of D1.2
- Liaisons & Communications
    - Consideration of OIF Liaison
    - ITU-T – Sending Draft 1.2
    - Consideration of COBO Communication – Request for Draft 1.2
- Joint session (Fri 8am to 10am) with IEEE 802.3 50GbE and NGOATH Study Groups – Update

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Chair displayed the reflector and web page information.

Chair noted that the draft, and any other content, is posted for Task Force review only, and neither the content nor access information should be copied or redistributed to others in violation of document copyrights.

2

Chair displays the Bylaws and Rules slides.

IEEE Patent Policy: Chair reviewed the Patent related slides on the 5 slides contained in the agenda. Chair calls for potentially essential patents. No one responded. Chair read the Guidelines for IEEE-SA meetings.   No one responded.

Chair advised the WG attendees that:
- The IEEE's patent policy is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
- Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
- There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.

The Chair noted need for approval of Nov 2015 Plenary Meeting minutes. The Chair noted that the meeting was mis-labeled as an interim meeting, and had received an email from Piers Dawe, who had noted he had asked for the responses to Comments 219, 221, and 234 to be reviewed at the Nov meeting.

Motion #2:
Move to approve the IEEE P802.3bs Nov 2015 Plenary meeting minutes, modified as noted
- Moved by: Steve Trowbridge
- Second by: Jonathan King
- Pass by voice vote without opposition

Chair reviewed the ground rules.

Chair reviewed the IEEE 802.3 Standards process.

Chair reviewed the liaisons and communications.
- The IEEE 802.3 Working Group Chair had assigned a received communication from the OIF on progress on CEI-56 projects to the P802.3bs Task Force (see http://www.ieee802.org/3/minutes/jan16/incoming/OIF_to_IEEE_P802d3bs_Dec_2015.pdf) . It was decided to hold off on sending a liaison back to the OIF at this time, as it is meeting next week, and we would be unable to forward D1.2 by that time.
- ITU-T – Draft 1.2 – Given timing of next ITU-T meeting, it was decided to forward D1.2. As the ITU-T is a governing body, a formal liaison from 802.3 must be sent. The Chair had asked Steve Trowbridge to prepare a proposed liaison for consideration by the Task Force on Wednesday.
- Consideration of COBO Communication – Draft 1.2. Communication from COBO has been received with a request for the latest P802.3bs draft (see http://www.ieee802.org/3/minutes/jan16/incoming/COBO_to_IEEE_802d3_Jan_2016.pdf). There was discussion regarding reciprocity, and COBO sharing its documents with the

P802.3bs Task Force. The Chair informed the group that he would prepare a proposed response for consideration by the Task Force on Wednesday.

Chair reviewed the meeting map for the week. It was noted that the Task Force would be breaking out into three tracks on Tuesday – logic, optics, and electrical interface. The Chair reminded the Task Force that there would be a joint meeting with the NGOATH Study Group on Friday morning.

Presentation #1:
Title: Chief Editor's Report
By: Pete Anslow
See   http://www.ieee802.org/3/bs/public/15_09/anslow_3bs_01_0915.pdf

It was noted that the track chairs would provide closing reports on Wednesday morning. Any participants with any issues regarding decisions made during the track meetings, should bring these issues to the attention of the Task Force at the Wednesday morning meeting. It was also noted that a group of comments for a "bucket" motion were noted on Page 12 of Chief Editor's Report. An opportunity at the Wednesday morning meeting would be given for individuals to have any of these comments considered.

Task Force comment resolution began at 9:53am

Break at 10:09am
Resumed at 10:35am

Comment resolution continued

Presentation #2:
Title: Addressing CRU BW Comments for 400GbE PMDs
By: Ali Ghiasi
See   http://www.ieee802.org/3/bs/public/16_01/ghiasi_3bs_01a_0116.pdf

Meeting break for lunch – 12:06pm
Continued at 1:18pm

Comment resolution continued

Presentation #3:
Title: New feature request: Pre-FEC BER Monitor Proposal
By: Dave Ofelt
See   http://www.ieee802.org/3/bs/public/16_01/ofelt_3bs_01a_0116.pdf

Strawpoll #1
   • I support the addition of the optional pre-FEC BER degrade feature proposed in ofelt_3bs_01a_0116.pdf.
   • (vote for one)
         • Yes - 24
         • No – 0
         • Abstain – 14

4

IEEE P802.3bs Task Force – January 19, 2016:
Prepared by John D'Ambrosia

IEEE P802.3bs Logic Track Meeting –
Prepared by Mark Gustlin
Meeting called to order at 9:02am, chaired by Mark Gustlin.

Patent slides were shown, and call for patents was made, no one stepped forward.

Comment resolution on comments assigned to Logic Track started.

Break at 10:00am,
Meeting continued at 10:21am

Comment resolution continued.

Break for lunch from 12:00pm – 1:35pm

Comment resolution continued.

Break for the day at 2:05pm

Things of note:
- Closed comments #68/5 (PCS sync SM), based on gustlin_3bs_03_0116, 3 consecutive errors from the same codeword
- Closed comments #65 (PCS equation simplification), based on gustlin_3bs_04_0116, clean up and simplification of equations
- Added transmit bit ordering diagram (comment #66 and gustlin_3bs_02_0116

IEEE P802.3bs Optical Track Meeting -
Prepared by Pete Anslow
Meeting called to order at 8:35am, chaired by Pete Anslow.

Chair asked if anyone was not familiar with the IEEE patent policy. There was no response.

Comment resolution of comments assigned to Optical Track started.

Presentation #1:
Title: Estimating MPI Penalty
By: Vipul Bhatt
See   http://www.ieee802.org/3/bs/public/16_01/bhatt_3bs_01a_0116.pdf

Presentation #2:
Title: Upper Bound Based MPI Penalty Analysis
By: Hai-Feng Liu
See   http://www.ieee802.org/3/bs/public/16_01/liu_3bs_01_0116.pdf

Break at 10:00 a.m. Resume at 10:20 a.m.

Presentation #3
Title: Revisit MPI Penalties for 400GBASE-FR8/LR8 Links
By: Winston Way
See   http://www.ieee802.org/3/bs/public/16_01/way_3bs_01a_0116.pdf

Presentation #4
Title: MPI penalty estimation: comparison across models and methodologies
By: Marco Mazzini
See   http://www.ieee802.org/3/bs/public/16_01/mazzini_3bs_01_0116.pdf

A straw poll was taken:
Do you prefer the straw man reflection budget for 400GBASE-DR4 with:
-35 dB maximum discrete reflectance and 0.6 dB penalty   28
-45 dB maximum discrete reflectance and 0.2 dB penalty   4
Comment resolution continued.
Break for lunch at 12:01 p.m. Resume at 1:30 p.m.

Presentation #5:
Title: Presentation supporting Comment #87
By: Tom Palkert
See   http://www.ieee802.org/3/bs/public/16_01/palkert_3bs_01_0116.pdf

Comment resolution completed.
Break at 2:16 p.m.

IEEE P802.3bs Electrical Interface Track -
Prepared by Andre Szczepanek

Convened at 8:55 a.m.

Comment resolution on comments assigned to Electrical Interface Track started.

Due to low attendance only non-controversial comments were addressed.

Break at 10:00 a.m.
Resume at 3:30 p.m.

Presentation #1:
Title: COM Table consensus for Annex 120D CDAUI (C2C)
By: Richard Mellitz & Raj Hegde
See   http://www.ieee802.org/3/bs/public/16_01/mellitz_3bs_02_0116.pdf

Presentation #2:
Title: BER TARGET, SNDR & COM MARGIN PROPOSAL FOR CDAUI-8 (IN SUPPORT
           OF COMMENTS #119, 120, 121, 122, 111, 113)
By: Raj Hegde & Magesh Valliappan
See   http://www.ieee802.org/3/bs/public/16_01/hegde_3bs_02_0116.pdf

Comment resolution continued.

Presentation #3:
Title: Comment #118: Tx linearity measurement Proposal
By: Raj Hegde & Magesh Valliappan
See   http://www.ieee802.org/3/bs/public/16_01/hegde_3bs_03_0116.pdf

Comment resolution continued.

Presentation #4:
Title: Comment #114: C2M Module to Host Transmitter eye specification proposal
By: Raj Hegde & Magesh Valliappan
See   http://www.ieee802.org/3/bs/public/16_01/hegde_3bs_01_0116.pdf

Comment resolution completed at 7:50 p.m.

IEEE P802.3bs Task Force Meeting – January 20, 2016:

Prepared by John D'Ambrosia

Meeting reconvened at 9:00am

Patent slides shown.
Chair did call for patents, no one stepped forward.

No further Task Force Comment resolution needed.
Chief Editor asked if there were any comments that needed to be reopened – no requests.
Chief Editor asked if there were any comments in the bucket that needed consideration – no requests.

Presentation #4:
Title: Logic Track Closing Report
By: Mark Gustlin
See   http://www.ieee802.org/3/bs/public/16_01/gustlin_3bs_05_0116.pdf

Presentation #5:
Title: Optical Track Closing Report
By: Pete Anslow
See   http://www.ieee802.org/3/bs/public/16_01/anslow_3bs_03_0116.pdf

Presentation #6:
Title: Electrical Interface Closing Report
By: Andre Szczepanek
See   http://www.ieee802.org/3/bs/public/16_01/szczepanek_3bs_02_0116.pdf

Motion #3:

- Move to:
    - Adopt remaining proposed responses to "bucket" comments detailed on Slide 12 of anslow_3bs_01_0116.pdf
    - Generate Draft 1.2 for Task Force review from Draft 1.1 and closed comments

- M: Pete Anslow
- S: Andre Szczepanek
- Technical (>= 75%)
- Results: Motion passes by voice vote without opposition
- Noted - 13 total in room

Presentation #7:
Title: Proposed Liaison to ITU-T
By: Steve Trowbridge
See   http://www.ieee802.org/3/bs/public/16_01/trowbridge_3bs_01_0116.pdf

Motion #4:

- Move that the IEEE P802.3bs 400 GbE Task Force approve the text in trowbridge_3bs_01_0116.pdf with editorial license granted to the IEEE 802.3 WG Chair (or his appointed agent) as a liaison to ITU-T.

- M: Steve Trowbridge
- S: Pete Anslow
- Technical (≥75%)
- Result: 12-0-0
- Motion Passes

Presentation #8:
Title: Proposed Communication to COBO
By: John D'Ambrosia
See   http://www.ieee802.org/3/bs/public/16_01/dambrosia_3bs_01_0116.pdf

Motion #5

- Move that the IEEE P802.3bs 400 GbE Task Force approve the text in dambrosia_3bs_01_0116.pdf with editorial license granted to the IEEE 802.3 WG Chair (or his appointed agent) as an informal communication to COBO.

- M: Pete Anslow
- S: Peter Stassar
- Procedural (>50%)
- Result: Passes by Voice Vote without opposition.

Presentation #9:
Title: Chief Editor's Closing Report
By: Pete Anslow
See   http://www.ieee802.org/3/bs/public/16_01/anslow_3bs_04_0116.pdf

Chair discussed next meetings.

- See: http://www.ieee802.org/3/interims/index.html
- Mar 2016 Plenary
    – Week of Mar 18
    – Macau China
- May 2016 Interim
    – Week of May 23
    – Location Whistler, BC, CA
- July 2016 Plenary
    – Week of July 24
    – Location San Diego, CA, USA
- Sept 2016 Interim
    – Week of Sept 12
    – Location Ft. Worth, TX, USA
- Nov 2016Plenary
    – Week of Nov 6
    – San Antonio, TX, USA

Meeting broke at 9:40am.

IEEE P802.3bs Task Force Meeting – January 22, 2016:

Prepared by Kent Lusted

IEEE P802.3bs 400 Gb/s Ethernet Task Force Joint meeting with the Next Generation 100 Gb/s and 200 Gb/s Ethernet (NGOATH) Study Group

Re-convened at 8:01 a.m., Chaired by John D'Ambrosia, IEEE P802.3bs Task Force Chair.

Chair appointed Kent Lusted as the Recording Secretary for the meeting.

Chair displayed the agenda slides:
http://www.ieee802.org/3/bs/public/16_01/agenda_3bs_01a_0116.pdf

Chair noted that additional text for the PAR section 8.1 has been prepared and will be displayed for the participants.

Presentation #10
Title: "UPDATE TO 802.3bs: On progress in the 50Gb/s and next gen 100 Gb/s & 200 Gb/s Ethernet study group",
By: Mark Nowell
See: http://www.ieee802.org/3/bs/public/16_01/nowell_3bs_01_0116.pdf

Chair explained that additional text for the PAR section 8.1 has been prepared. The section was originally omitted but needs to be completed as this is a PAR modification. It will be used by the 50GE and NGOATH Study Groups. Chair asked if there was objection from the Task Force to the path outlined. No one objected.

Presentation #11
Title: Proposed Text for Response to Par Item 8.1
By: John D'Ambrosia, Pete Anslow
See: http://www.ieee802.org/3/bs/public/16_01/dambrosia_3bs_02_0116

- Pete Anslow explained the proposed changes
- Chair asked if there was objection from the Task Force with the direction set forth in the proposed note. No response.

Chair asked if there was anyone in the Task Force that wanted to see the proposed CSD changes or the proposed objective changes. No one responded.

Chair asked if anyone wanted to see the presentation on the potential impact to the P802.3bs timeline. Someone responded. Chair displayed the timeline from http://www.ieee802.org/3/50G/public/adhoc/archive/dambrosia_02_010616_50GE_NGOATH_adhoc.pdf and reviewed the potential schedule impact to the P802.3bs Task Force.

Chair reminded participants to sign into the IEEE Attendance tool and sign the book.

John D'Ambrosia asked Bob Grow to chair the meeting during discussion of Straw Poll #1.

Straw Poll #: 2

I would support :
  – the proposed P802.3bs PAR modifications per nowell_3bs_01_0116 and dambrosia_3bs_02_0116
  – the proposed changes to the P802.3bs CSD responses and objectives per nowell_3bs_01_0116

- Yes: 50
- No: 0
- Abstain: 2

John D'Ambrosia resumed chair of the meeting.

Chair discussed the possibility of the June 2016 interim. The decision will be pending technical completeness of the document, which will be assessed after proposed responses to D1.3. There was a request for more clarity on the specific date of announcement.   It was noted that approximately the week of May 9 to May 16.

Meeting agenda is complete. Meeting adjourned at 8:36 a.m.

Attendees

IEEE P802.3bs 400GbE Task Force			1/18/2016	1/19/2016	1/20/2016	1/22/2016
Last Name	First Name	Employer / Affiliation	Monday	Tuesday	Wednesday	Friday
Anslow	Pete	Ciena Corporation	x	x	x	x
Baden	Eric	Broadcom	x	x		x
Balasubramonian	Venu	Marvell				x
Bernstein	Gary	Leviton	x	x		
Bhatt	Vipul	Inphi	x	x		
Bliss	Will	Broadcom	x	x		
Booth	Brad	Microsoft				x
Bouda	Martin	Fujitsu	x	x	x	x
Braun	Ralf-Peter	Deutsche Telekom	x	x	x	
Brooks	Paul	Viavi Solutions		x		x
Brown	Matt	Applied Micro				x
Butter	Adrian	Global Foundries	x	x		x
Chacon	Geoffrey	Hewlett Packard Enterprise	x	x		x
Chen	David	Nokia	x			
Chen	David	AOI	x	x		
Cole	Chris	Finisar		x		x
D'Ambrosia	John	Futurewei, subsidiary of Huawei	x	x	x	x
Dawe	Piers	Mellanox		x		x
Dillard	John	Microsemi		x		x
Dudek	Mike	QLogic		x		x
Estes	Dave	Spirent Communications				x
Ewen	John	Global Foundries	x	x		x
Fife	James	eTopus Tech		x		
Flatman	Alan	LAN Technologies				x
Ghiasi	Ali	Ghiasi Quantum	x	x		x
Goell	James	Nano Precision Prod	x	x		
Gorshe	Steve	PMC_Sierra	x	x	x	
Grow	Bob	RMG Consulting				x
Gustlin	Mark	Xilinx	x	x	x	x
Healey	Adam	Avago Technologies		x	x	x
Hegde	Raj	Broadcom	x	x		
Hidaka	Yasuo	Fujitsu Laboratories of America		x		x
Huang	Xi	Huawei	x	x		x
Ingham	Jonathan	Foxconn Interconnect Technology				x
Ishibe	Kazuhiko	Anristu				x
Isono	Hideki	Fujitsu Ltd.	x	x		x
Issenhuth	Tom	Microsoft	x	x		x
Jackson	Kenneth	Sumitomo		x		x
Kareti	Upen Reddy	Cisco	x	x		
King	Jonathan	Finisar Corp.	x	x		
Kipp	Scott	Brocade		x		
Kojima	Keisuke	Mitsubishi Electric Res. Lab	x	x		
Kolesar	Paul	CommScope	x	x		
Lane	Brett	Panduit Corp.		x		
Lapak	Jeff	UNH-IOL	x			
Lewis	Dave	Lumentum	x			
Liu	Hai-Feng	Intel	x	x		x

13

Lusted	Kent	Intel				x
Maki	Jeffery	Juniper Networks	x	x		x
Malicoat	David	Hewlett Packard Enterprise				x
Marris	Arthur	Cadence				x
McCurdy	Alan	OFS-Fitel	x	x		
McDermott	Tom	Fujitsu	x	x	x	x
McDonough	John	NEC America		x		x
McSorley	Greg	Amphenol		x		
Mei	Richard	Commscope	x			
Mellitz	Richard	Intel		x		
Mooney	Paul	Spirent Communications	x	x		
Muir	Ron	JAE			x	x
Murata	Koichi	GigOptix	x	x		
Murray	Dale	Light Counting		x		
Nakamoto	Edward	Spirent Communications	x	x		
Nowell	Mark	Cisco				x
Ofelt	David	Juniper Networks	x	x		x
Ogura	Ichiro	Petra	x	x		
Palkert	Tom	Luxtera		x		
Park	Moon	OE Solutions		x		
Parthasarathay	Vasudevan	Broadcom		x		
Peters	Michael	Sumitomo				x
Pham	Phong	US Conec Ltd	x			x
Pimpinella	Rick	Panduit Corp.	x	x		
Sakai	Toshiaki	Socionext	x	x		
Sayre	Edward	Samtec	x			x
Schube	Scott	Intel	x	x		
Slavick	Jeff	Avago Technologies	x	x		x
Sone	Yoshiaki	NTT	x	x		
Stassar	Peter	Huawei		x	x	x
Sun	Phil	Credo Semiconductor	x	x		x
Svendsen	Justin	CIT				x
Swanson	Steve	Corning		x		
Szczepanek	Andre	Inphi	x	x	x	x
Szeto	William	Xtera	x	x	x	
Tailor	Bharat	Semtech Corp	x	x		x
Takahata	Kiyoto	NTT	x	x		
Tamura	Kohichi	Oclaro Japan	x	x		x
Teipen	Brian	ADVA Optical Networking	x	x		
Tooyserkani	Pirooz	Cisco	x	x		x
Trowbridge	Steve	Alcatel-Lucent	x	x	x	x
Ulrichs	Ed	Source Photonics		x		x
Wang	Tongtong	Huawei	x	x		x
Wang	Xinyuan	Huawei	x	x		x
Wang	Roy	Hewlett Packard Enterprise		x		x
Way	Winston	NeoPhotonics	x	x		
Welch	Brian	Luxtera	x	x		
White	Martin	Cavium		x		x
Xu	Qing	Belden	x	x		x
Xu	Yu	Huawei	x			
Yuki	Hayato	AutoNetworks Tech				x
Zambell	Andrew	FCI		x		
Zhang	Huanlin	Applied Optoelectronics	x	x		

14

Gupta	Atul	MACOM		x		
Leizerorich	Hanan	MultiPhy	x	x		x
Ben Artsi	Liav	Marvell Israel	x	x		
Choi	Hyun	Nvidia	x	x		x
De Bernardinis	Fernando	Marvell Italia	x			x
Chen	C.C David	AOL	x			
Ulrichs	Ed	Source Photonics	x			
Effenberger	Frank	Huawei	x			
Ram	Aaron	Samtec	x	x		
Lim	Jane	Cisco	x	x		x
Kimber	Mark	Semtech		x		x
Huang	Xi	Huawei		x		
Goldberg	Jonathan	IEEE				x
Lewis	Jon	Dell				x
Zimmerman	George	CMD Consulting				x