

Approved Minutes
IEEE P802.3bs 400 GbE Task Force
Plenary Meeting
Mar 14-17, 2016
Macau, China

Prepared by John D'Ambrosia, Futurewei, subsidiary of Huawei

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IEEE P802.3bs Task Force Meeting – Mar 14, 2016:

Prepared by John D'Ambrosia

Convened at 1:27pm, Chaired by John D'Ambrosia

Introductions were made.

Agenda & General Information

By – John D'Ambrosia

See - http://www.ieee802.org/3/bs/public/16_03/agenda_3bs_01_0316.pdf

Chair reviewed the agenda.

Motion #1:

Move to approve the agenda

- Moved by: Steve Trowbridge
- Second by: Thananya Baldwin
- Pass by voice vote without opposition

Motion #2:

Move to approve the IEEE P802.3bs Jan 2016 Interim meeting minutes

- Moved by: Thananya Baldwin
- 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 177 Comments against D1.2
- 14 Technical Presentations
- Liaisons & Communications
- Consideration of proposed liaison to IEC 86B WG6 (kolesar_3bs_01_0316)
- Consideration of proposed liaison to TIA TR-42.13 (kolesar_3bs_02_0316)
- Approve generation of D1.3
- Meeting on Thursday for endorsement of proposed 802.3bs PAR modification to include 200GbE SMF, if significant changes made.

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.

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.

Chair reviewed the ground rules.

Chair reviewed the IEEE 802.3 Standards process.

Chair reviewed the liaisons and communications. Two proposed liaisons from 802.3 had been provided by Paul Kolesar, CommScope. One incoming liaison had been received from the OIF, which the 802.3 WG chair delegated to the 802.3bs Task Force. The Chair asked Steve Trowbridge to generate a proposed response by Tuesday, as the Chair noted the proposed responses to the liaisons might be heard Tuesday afternoon.

Chair reviewed the meeting map for the week. It was noted that the Task Force would be breaking out into three tracks on Tuesday morning – logic, optics, and electrical interface. The Chair noted that a late presentation request had been made from Raj Hegde, Broadcom. There were no objections to hearing the presentation.

The Chair reminded the Task Force that there would be a meeting after the NGOATH Study Group meeting on Thursday to endorse any significant changes made to the proposed modifications to 802.3bs project documentation.

Presentation #1:

Title: Chief Editor's Report

By: Pete Anslow

See http://www.ieee802.org/3/bs/public/16_03/anslow_3bs_01_0316.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 was 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.

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

Task Force comment resolution began at 1:50pm

Presentation #2

Title: Comments 25& 26: Nomenclature

By: Kent Lusted

See http://www.ieee802.org/3/bs/public/16_03/lusted_3bs_01a_0316.pdf

Presentation #3

Title: Comments 93-96, 103, 104, 106, 109, 110: Considerations for CDR Bandwidth Proposal

By: Fernando De Bernardinis

See http://www.ieee802.org/3/bs/public/16_03/debernardinis_3bs_01a_0316.pdf

Break at 3:10 pm

Resumed at 3:32 pm

Comment resolution continued

Presentation #4:

Title: Comments 102-105, 109-114, 116, 117: Considerations for CRU BW 400 GbE PMDs in Support of Comments

By: Ali Ghiasi

See http://www.ieee802.org/3/bs/public/16_03/ghiasi_3bs_01_0316.pdf

Presentation #5:

Title: CRU Bandwidth

By: Pete Anslow

See http://www.ieee802.org/3/bs/public/16_03/anslow_3bs_04_0316.pdf

Presentation #6:

Title: Comments 160, 161: Pre-FEC BER Monitoring

By: Dave Ofelt

See http://www.ieee802.org/3/bs/public/16_03/ofelt_3bs_01a_0316.pdf

Presentation #7:

Title: Comment #33 - Thoughts on Proposed Text for CDMII Extender / CDXS Sublayer

By: John D’Ambrosia

See http://www.ieee802.org/3/bs/public/16_03/dambrosia_3bs_01_0316.pdf

Discussion of this presentation was deferred to Logic Track discussions.

Meeting break for the day at 5:42pm

IEEE P802.3bs Task Force Meeting – Mar 15, 2016:

Prepared by John D'Ambrosia

IEEE P802.3bs Logic Track Meeting –

Prepared by Mark Gustlin

Meeting called to order at 8:06am, chaired by Mark Gustlin

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

Break at 10:30am

Return at 11:05am

3 hours of comment resolution, 21 comments, 8.5 minutes/comment.

Meeting break at approximately 11:40am

Things of note:

- Closed comments #3 and related comments on AM format based on butter_3bs_02a_0116
- Closed comments #163 adding annex 119A, example codewords
- Closed comment #23, filling in the TBDs in amp_valid and pcs_lane.
- Added in text for clause 118 per comment #33

IEEE P802.3bs Optical track meeting:

Prepared by Pete Anslow

IEEE P802.3bs 400 Gb/s optical track meeting convened at 8:02 a.m., Tuesday, 15 March, 2016, chaired by Pete Anslow, IEEE P802.3bs Chief Editor.

Chair asked if anyone was not familiar with the IEEE patent policy. There was no response.
Comment resolution started at 8:05 a.m.

Presentation #1:

Title: Towards Consensus on MPI Penalty for 802.3bs SMF PMDs

By: Hai-Feng Liu

See http://www.ieee802.org/3/bs/public/16_03/liu_3bs_01_0316.pdf

Presentation #2:

Title: Fiber cabling models for SMF MPI Calculations

By: Gary Nicholl

See http://www.ieee802.org/3/bs/public/16_03/nicholl_3bs_01_0316.pdf

Break at 10:20 a.m.

Resume at 10:40 a.m.

Presentation #3

Title: Considerations on power levels for 400GBASE–FR8 and –LR8 as input to Comment resolution on Draft 1.2

By: Peter Stassar

See http://www.ieee802.org/3/bs/public/16_03/stassar_3bs_01_0316.pdf

Comment resolution completed.

Break at 11:45 a.m.

IEEE P802.3bs Electrical track meeting:

Prepared by Andre Szczepanek

IEEE P802.3bs 400 Gb/s electrical track meeting convened at 8:10 a.m., Tuesday, March 15, 2016, chaired by Andre Szczepanek, IEEE P802.3bs Annex 120D/E Editor.

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

Presentation #1:

Title: Comment 148: Module TX eye measurement method proposal

By: Raj Hegde

See http://www.ieee802.org/3/bs/public/16_03/hegde_3bs_01_0316.pdf

Comment resolution started.

Break at 10:25 a.m.

Resume at 10:45 a.m.

Comment resolution continued.

Presentation #2:

Title: Comment 145: Transmit linearity measurement method proposal

By: Adam Healey

See http://www.ieee802.org/3/bs/public/16_03/hegde_3bs_01_0316.pdf

Presentation #3:

Title: Comment 145: Changes to the draft

By: Adam Healey

See http://www.ieee802.org/3/bs/public/16_03/healey_3bs_02_0316.pdf

Comment resolution continued.

Meeting broke with 9 comments unresolved at 12:15 p.m.

IEEE P802.3bs Task Force Meeting –

Prepared by John D'Ambrosia

IEEE P802.3bs 400 Gb/s Task Force meeting re-convened at 1:20pm, chaired by Pete Anslow, IEEE P802.3bs Chief Editor.

Comment resolution focused on comments not resolved by Electrical Track.

Break at 3:04
Reconvened at 3:24

Late presentation request by Raj Hegde, no objections to hearing it.

Presentation #8:

Title: Comment #148: Changes
By: Raj Hegde
See http://www.ieee802.org/3/bs/public/16_03/hegde_3bs_04_0316.pdf

Comment resolution ended.

Consideration of liaisons and communications, chaired by D'Ambrosia

Gary Nicholl indicated that after discussing the proposed liaisons to IEC (http://www.ieee802.org/3/bs/public/16_03/kolesar_3bs_01a_0316.pdf) and TIA (http://www.ieee802.org/3/bs/public/16_03/kolesar_3bs_02a_0316.pdf) with individuals at the meeting, he felt that the liaisons should be discussed at the May Interim. No one requested presenting these proposed liaisons. Chair indicated he would follow-up with Paul Kolesar.

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 #3:

- Move that the IEEE P802.3bs Task Force approve the text in IEEE_802d3_to_OIF_0316_draft with editorial license granted to the IEEE 802.3 WG Chair (or his appointed agent) as a liaison to the OIF.
- Moved by – Steve Trowbridge
- Second by – Mike Li
- Technical (75%)
- Results – Motion passes by voice vote without objection

The chair asked the group if there were any bucket comments that anyone wanted to have considered – there were none.

General discussion regarding comments related to AC Coupling.

Break at 5pm.

IEEE P802.3bs Task Force Meeting – Mar 16, 2016:

Prepared by John D'Ambrosia

Meeting reconvened at 8:02am

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. Afterwards, the chief editor requested that comment #148 be re-opened, as he had noted that his request for editorial license (due to headings not matching style guide) had not been captured in the response. There was no objection to modifying the comment to grant editorial license to the editor.

Presentation #8:

Title: Logic Track Closing Report

By: Mark Gustlin

See http://www.ieee802.org/3/bs/public/16_03/gustlin_3bs_02_0316.pdf

Presentation #9:

Title: Optical Track Closing Report

By: Pete Anslow

See http://www.ieee802.org/3/bs/public/16_03/anslow_3bs_05_0316.pdf

Presentation #10:

Title: Electrical Interface Closing Report

By: Andre Szczepanek

See http://www.ieee802.org/3/bs/public/16_03/szczepanek_3bs_02_0316.pdf

Presentation #11:

Title: Chief Editor's Closing Report

By: Pete Anslow

See http://www.ieee802.org/3/bs/public/16_01/anslow_3bs_04_0116.pdf

Motion #4

- Move to:
 - Adopt remaining proposed responses to “bucket” comments detailed on Slide 12 of anslow_3bs_01_0316.pdf
 - Generate Draft 1.3 for Task Force review from Draft 1.2 and closed comments
- M: Pete Anslow
- S: Mark Gustlin
- Technical ($\geq 75\%$)
- Results: Passes by voice vote without opposition

Chair discussed 200GbE, and potential need for baseline proposals if the 802.3bs PAR modification is approved.

Chair discussed next meetings.

- See: <http://www.ieee802.org/3/interims/index.html>
 -
- 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 2016 Plenary
 - Week of Nov 6
 - San Antonio, TX, USA

Meeting broke at approximately 8:30am.

IEEE P802.3bs Task Force Meeting – Mar 17, 2016:

Prepared by Kent Lusted

IEEE P802.3bs 400 Gb/s Task Force convened at 1057 a.m., March 17, 2016, by John D'Ambrosia.

Chair noted that David Law asked for an indication of support for the proposed changes to the P802.3bs PAR modification and objectives.

Chair displayed the adopted changes to P802.3bs Project Objectives and modified PAR
See http://www.ieee802.org/3/bs/public/16_03/NGOATH_3bs_Objectives_16_0316.pdf
See - http://www.ieee802.org/3/50G/public/Mar16/P802_3bs_PAR_160316.pdf

John D'Ambrosia asked Bob Grow to chair the meeting.

Proposed Strawpoll

- I would support :
 - the proposed P802.3bs PAR modifications per NGAOTH_802d3bs_PAR_modification_0116.pdf
 - the proposed changes to the P802.3bs objectives per NGOATH_3bs_Objectives_16_0316

There was a request to divide the straw poll. Request accepted.

Straw poll #1

- I would support:
 - the proposed P802.3bs PAR modifications per P802_3bs_PAR_160316.pdf
- Yes – 69
- No - 0
- Abstain – 7

Straw poll 2

- I would support :
 - the proposed changes in blue to the P802.3bs objectives per NGOATH_3bs_Objectives_16_0316
- Yes – 56
- No - 2
- Abstain 14

Bob Grow returned the Chair to John D'Ambrosia.

Chair noted that he will take Thursday attendance from the 50G/NGOATH attendance sheets due to time constraints.

Chair noted that there are 2 key sections (TDP, Stressed Rx Testing) of the draft that are incomplete and need significant work. Chair noted that the draft cannot progress to Working Group ballot until the document is technically complete, without TBD values.

Chair reviewed the potential plans and schedule for the out-of-cycle interim meeting in June. Chair noted that originally communicated tentative dates for that meeting were not available at the proposed location. More details will come later over the email reflector.

Motion to adjourn

M: Thananya Baldwin

S: Mark Gustlin

Pass by voice vote without opposition

Meeting adjourned at 11:39am

Attendees

IEEE P802.3bs 400GbE Task Force			3/14	3/15	3/16	3/17
Last Name	First Name	Employer / Affiliation	Monday	Tuesday	Wednesday	Thursday
Abbott	Justin	Lumentum	x	x		x
Anslow	Pete	Ciena Corporation	x	x	x	x
Baldwin	Thananya	Ixia	x	x		x
Bar-Niv	Amir	Aquantia				x
Bazk	Tongtong	LGE				x
Ben Artsi	Liav	Marvell Israel		x		x
Bhatt	Vipul	Inphi		x		x
Booth	Brad	Microsoft	x			x
Bouda	Martin	Fujitsu	x	x		x
Braun	Ralf-Peter	Deutsche Telekom	x	x		x
Brown	Matt	Applied Micro		x		x
Butter	Adrian	Global Foundries	x	x		x
Caggioni	Francesco	APM	x	x		x
Casher	Patrick	Lorom		x		x
Chang	Jacky	Hewlett Packard Enterprise				x
Chang	Xin	Huawei				x
Chang	Daj-Chieh	Lorom				x
Cheng	Weiyang	Coriant	x			x
Choi	Hyun	Nvidia	x	x		x
Chuang	Keng Hua	HP Networking		x		x
Cole	Chris	Finisar	x	x		
D'Ambrosia	John	Futurewei, subsidiary of Huawei	x	x	x	x
Dawe	Piers	Mellanox		x		x
De Bernardinis	Fernando	Marvell Italia	x	x		
Dillard	John	Microsemi	x	x		x
DiMinico	Chris	MC Communications / Panduit				x
Dudek	Mike	QLogic		x		x
Estes	Dave	Spirent Communications		x		
Fife	James	eTopus Tech		x		x
Ghiasi	Ali	Ghiasi Quantum	x	x		x
Gong	Zhigang	D-Net		x		x
Gorshe	Steve	Microsemi	x	x	x	x
Gupta	Atul	MACOM		x		
Gustlin	Mark	Xilinx	x	x	x	x
Healey	Adam	Broadcom LTD		x		x
Hegde	Raj	Broadcom	x	x		x
Helster	David	TE Connectivity		x		
Hidaka	Yasuo	Fujitsu Laboratories of America		x		x
Huang	Xi	Huawei	x			x
Huang	Yifan	AFLI				x
Huang	Yifan	Amphenol FCI	x	x		
Ishibe	Kazuhiko	Anristu	x	x		x
Isono	Hideki	Fujitsu Ltd.		x		x
Issenhuth	Tom	Microsoft	x	x		x
Jackson	Kenneth	Sumitomo		x		
Kang	Vincent	GUC	x	x		x
Kareti	Upen Reddy	Cisco		x		x
Kelsen	Michael	Time Warner Cable		x		x

Kim	Jin-Woo	LGE				x
Kimber	Mark	Semtech	x	x		x
Klempa	Mike	UNH-IOL				x
Kuo	Sarching	AOI				x
Lapak	Jeff	UNH-IOL	x	x		x
LeCheminant	Greg	Keysight Technologies	x	x		
Lee	Bernard	Seiko Advanced Components				x
Lewis	Dave	Lumentum		x		
Li	Mike	Intel	x	x		x
Li	Shaohua	Brocade	x	x		x
Liang	Hsiao-Pin	Lorom				x
Lim	Jane	Cisco		x		x
Lin	Zhenyu	Credo Semiconductor				x
Liu	Hai-Feng	Intel	x	x		
Liu	Zhenyu	Credo Semiconductor	x	x		
Lusted	Kent	Intel		x		x
Maki	Jeffery	Juniper Networks	x	x		
Marris	Arthur	Cadence				x
McDermott	Tom	Fujitsu		x	x	x
McDonough	John	NEC America	x	x		
Mei	Richard	Commscope	x	x		x
Mellitz	Richard	Intel				x
Muir	Ron	JAE		x		x
Nadolny	Jim	Samtec	x	x		x
Nakamoto	Edward	Spirent Communications	x	x		
Nicholl	Gary	Cisco	x	x		x
Ofelt	David	Juniper Networks	x	x		x
Palkert	Tom	Luxtera	x			x
Parthasarathay	Vasudevan	Broadcom				x
Pepper	Gerald	Ixia	x	x	x	x
Qiwen	Zhongfeng	Huawei				x
Rabinovich	Rick	ALE				x
Ran	Adee	Intel		x		x
Regev	Alexandre	Mellanox	x	x		x
Rotolo	Salvatore	STM Microelectronics	x	x		x
Sakai	Toshiaki	Socionext	x	x		x
Sasaki	Yasuo	Samtec Inc	x	x		
Sella	Omer	Mellanox		x		x
Sommers	Scott	Molex	x	x		
Sone	Yoshiaki	NTT	x	x		
Srivastava	Atul	NEL / NTT	x	x		
Stassar	Peter	Huawei	x	x	x	x
Szczepanek	Andre	Inphi	x	x		x
Szeto	William	Xtera	x	x	x	x
Tailor	Bharat	Semtech Corp	x	x		x
Tamura	Kohichi	Oclaro Japan	x	x		x
Toyoda	Hidehiro	Hitachi	x	x		x
Trowbridge	Steve	Alcatel-Lucent	x	x	x	x
Ulrichs	Ed	Source Photonics	c	c		x
Valle	Stefano	ST Microelectronics	x	x		x
Wang	Tongtong	Huawei	x	x		x
Wang	Xinyuan	Huawei				x
Wang	Roy	Hewlett Packard Enterprise		x		

Wang	Eric	AOI				x
Wang	Eric	AOL		x		
Welch	Brian	Luxtera		x		x
Wertheim	Oded	Mellanox	x	x		
Xu	Yu	Huawei				x
Xu	Dayin	Rockwell Automootion;				x
Zhong	Qiwen	Huawei	x			
Zivny	Pavel	Tektronix	x	x	x	