Approved Minutes
IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force
Interim Meeting
January 11-13, 2017
Huntington Beach, CA, USA
Prepared by Kent Lusted & Mark Nowell

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IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – January 11, 2017

Prepared by Kent Lusted

IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet Task Force meeting convened at ~9:05 a.m., by Mark Nowell, IEEE P802.3cd Task Force Chair.

Mr. Nowell welcomed attendees.

Chair reviewed agenda in http://www.ieee802.org/3/cd/public/Jan17/agenda_3cd_01a_0117.pdf

Introductions were made.

Motion #1:
Move to approve the agenda:
- Moved by: Adee Ran
- Second by: Thananya Baldwin
- Passed by voice without opposition

Minutes were posted shortly after the meeting. Chair asked if there were any comments on the posted minutes.   No one responded.

Motion #2:
Move to approve the November 2016 minutes:
- Moved by: Thananya Baldwin
- Second by: Mike Dudek
- Passed by voice without opposition

Chair reminded participants to observe meeting decorum. Called for members of the press. No one responded. Photography and recording are not permitted.

Chair reviewed the reflector and web information. Chair reviewed the ground rules for the meeting.

Chair reviewed the attendance procedures. Chair reminded participants to sign into the IEEE Attendance Tool and to sign the book.

Chair reviewed the IEEE structure.

Chair reviewed the Bylaws and Rules slides in http://www.ieee802.org/3/cd/public/Jan17/agenda_3cd_01a_0117.pdf

Chair noted that there was a new slide with a statement on the participation in IEEE 802 Meetings. (See http://www.ieee802.org/3/cd/public/Jan17/agenda_3cd_01a_0117.pdf slide 11) There was a discussion on the background activities that led to the participation agreement.

IEEE Patent Policy: Chair reviewed the Patent related slides on the 4 slides contained in the agenda. Chair calls for potentially essential patents. No one responded. Chair read the Guidelines for IEEE WG 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, 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.

No one responded.

Chair reviewed the IEEE 802.3 Standards Process.

Chair noted that there was a liaison from the OIF to the IEEE 802.3bs and IEEE 802.3cd regarding the progress on OIF CEI-56G projects. (see http://www.ieee802.org/3/minutes/jan17/incoming/OIF_to_IEEE_P802d3bs_cd_Dec_2016.pdf)

Chair reviewed the P802.3cd Ethernet Task Force approved project documentation.

Chair reviewed the adopted objectives.

Chair reviewed the adopted timeline. Chair noted that Draft 1.2 will be generated after this meeting. The requirement to go into Working Group is a technically complete draft. It is the editorial team's expectation that Draft 1.2 will be technically complete and potentially ready to be pre-submitted to the Working Group for approval to Working Group ballot in March 2017. Normally, a draft is circulated and the comments are expected to be low. This results in a dead meeting while awaiting the transition to Working Group ballot. The chair proposed a tentative plan to encourage full review of the document to continue improve technical accuracy. Any changes to D1.2 would be explained to the Working Group if requesting approval to Working Group Ballot. This is a departure from the process other Task Forces have followed. If a large number of comments are received or if there are significant changes to the document, then the request for Working Group ballot approval will be withdrawn in March 2017. Chair noted that participants are not expected to hold back on comments against the D1.2 to improve the technical accuracy of the document.

The technical presentations will be addressed during comment resolution. It was noted that Ali Ghiasi's presentation is currently scheduled towards the end of the meeting.

Chair noted that the dual track plan was cancelled. The published schedule indicates that the meeting will run thru Friday. Chair noted that the contract with the hotel specifies an early cancellation fee. If the meeting happens to end early, please accept the terms of the contract.

Goals for the meeting:
- Comment Resolution
- Review Technical presentations
- Generate Draft 1.2

Future Meetings:
- March 2017 Plenary
  - Week of March 12th, 2017 – Vancouver, BC, Canada
- May 2017 Interim
  - Week of May 22, 2017 – New Orleans, LA
- July 2017 Plenary
  - Week of July 20, 2017 – Berlin, Germany
- Sept 2017 Interim
  - Week of September 11, 2017 – NA location

Anyone interested in hosting a meeting should contact the Chair or Steve Carlson.

IEEE P802.3cd Task Force Ad-hoc report:
See http://www.ieee802.org/3/cd/public/Jan17/lusted_3cd_01_0117.pdf
- Kent Lusted noted that the joint ad hoc meetings will likely resume on January 25, 2017. The details will be announced over the reflector.

Presentation #1:
"Editorial Consideration", Matt Brown
See: http://www.ieee802.org/3/cd/public/Jan17/brown_3cd_01a_0117.pdf
- Matt noted that he reviewed the draft with Kent Lusted and found 3 TBDs in the document that were not covered by a comment. Matt created 3 new late comments to address these TBD items.
- Matt reviewed the list of comments considered "bucket" worthy. (see: http://www.ieee802.org/3/cd/comments/8023cd_D11_comment_proposed_responses_bucket_list.pdf)
- Matt noted that the goal of the meeting is to create a technically complete draft, if possible, out of the meeting.
- Asked participants to review the proposed responses for the "bucket worthy" comments and notify the Chair, the Chief Editor and the Recording Secretary of any comments that should be addressed on the Task Force floor. The proposed responses to the unresolved bucket comments will be adopted in motion during closing business.
- Matt reviewed the posted comment resolution agenda (see http://www.ieee802.org/3/cd/public/Jan17/brown_3cd_02_0117.pdf) The pink comments are the late comments to address the 3 TBDs in Draft 1.1. Note that Ali Ghiasi's comment relating to his presentation was removed from the bucket list.

Matt reviewed the 3 new comments (#212, #213, #214) listed in
http://www.ieee802.org/3/cd/comments/8023cd_D11_comment_proposed_responses_by_clause-

[v2.pdf](v2.pdf) It was noted that these comments are Technical, not Editorial. Chair asked if there was opposition to considering these late comments at the Task Force meeting. No one responded.

Comment resolution began.

Matt Brown reviewed the topics in the cross clause comments.

Break at ~10:30 a.m. Resume at ~10:50 a.m.

Comment resolution continued.

Presentation #2:
"Skew Variation for 50G/100G PMDs and PMAs", Oded Wertheim
See: http://www.ieee802.org/3/cd/public/Jan17/wertheim_3cd_01_0117.pdf
- Oded solicited feedback from the Task Force for skew on the host.

Matt asked for a show of hands of support in favor of Oded's proposal. Matt asked for those that support Matt's proposal for the legacy values. The show of hands was not clear.

Straw Poll #1:
See comment #80 in the accepted comment response database for details.

Break at ~12:05 p.m. Resume @ ~1:20 p.m.

Chair asked participants to review the proposed responses for "bucket" worthy comments and notify the Chair, the Chief Editor and the Recording Secretary of any comments that should be addressed on the Task Force floor. The proposed responses to the unresolved bucket comments will be adopted in a motion during closing business.

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

Comment resolution continued.

Break at ~3:00 p.m. Resume at ~3:35 p.m.

Presentation #3:
"MDI specs for SR, SR2, SR4 PMDs", Paul Kolesar
See: http://www.ieee802.org/3/cd/public/Jan17/kolesar_3cd_01_0117.pdf
- Discussed the need to keep the optical and copper interfaces compatible at the electrical interface.

Straw Poll #2:
See comment #58 in the accepted comment response database for details.

Chair noted that the magenta values left in Draft 1.2 will need to be resolved prior to the request to go to Working Group ballot.

Chair announced a start time of 8:00 a.m.

Break for the day at ~6:05 p.m.

IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – January 12, 2017

Prepared by Kent Lusted

Meeting convened at ~8:10 a.m. by Mark Nowell, IEEE P802.3cd Task Force Chair.

Chair reviewed the plans for the day. Chair displayed the agenda presentation:
http://www.ieee802.org/3/cd/public/Jan17/agenda_3cd_01a_0117.pdf

Chair reminded participants to sign into the IEEE Meeting Attendance Tool and to sign the attendance book.

Matt Brown outlined the day's plans for comment resolution

Presentation #4:
"BER requirement text in clause introduction (comments 31 and 46)", Adee Ran
See: http://www.ieee802.org/3/cd/public/Jan17/ran_3cd_01b_0117.pdf
- Clarifying questions were asked and answered.

Break at ~10:30 a.m. Resume at ~10:55 a.m.

Chair asked participants to review the proposed responses for "bucket" worthy comments and notify the Chair, the Chief Editor and the Recording Secretary of any comments that should be addressed on the Task Force floor. The proposed responses to the unresolved bucket comments will be adopted in motion during closing business.

Break for lunch at ~12:00 p.m. Resume at ~1:05 p.m.

Ali Ghiasi withdrew comment #109.

Ali Ghiasi withdrew comment #110.

Ali Ghiasi withdrew comment #111.

Straw Poll #3:
See comment #108 in the accepted comment response database for details.

Pulled comment #171 from the bucket worthy comment list and resolved it in the Task Force.

Presentation #5:
"Revised proposed responses for comments against P802.3cd Clause 138: Comments 13, 14, 15 on the MDI for 50GBASE-SR, 100GBASE-SR2 and 200GBASE-SR4
", Jonathan King
See: http://www.ieee802.org/3/cd/public/Jan17/king_3cd_01_0117.pdf
- Clarifying questions were asked and answered.

Break at ~3:00 p.m.   Resume at ~3:30 p.m.

Chair discussed the need to review the magenta items in the document and verify their values.

Chair asked participants to review the proposed responses for "bucket" worthy comments and notify the Chair, the Chief Editor and the Recording Secretary of any comments that should be addressed on the Task Force floor. The proposed responses to the unresolved bucket comments will be adopted in motion during closing business.

Pulled comment #129 from the bucket worthy comment list and resolved it in the Task Force.

Pulled comment #45 from the bucket worthy comment list and resolved it in the Task Force.

Presentation #6:
"Determining SNR ISI for Clause 136 and Clause 137 (comment #209 and #210)", Rich Mellitz
See: http://www.ieee802.org/3/cd/public/Jan17/mellitz_3cd_01a_0117.pdf
- Clarifying questions were asked and answered.

Break for the day at ~6pm.

IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – January 13, 2017

Prepared by Mark Nowell

Meeting convened at ~8:15 a.m. by Mark Nowell, IEEE P802.3cd Task Force Chair.

Chair reviewed the plans for the day. Chair displayed the agenda presentation:
http://www.ieee802.org/3/cd/public/Jan17/agenda_3cd_01a_0117.pdf

Chair reminded participants to sign into the IEEE Meeting Attendance Tool and to sign the attendance book.

Mark Nowell withdrew comment #67

Straw Poll#4:
See comment #53 in the accepted comment response database for details.

Rich Mellitz withdrew comment # 211
Yasuo Hidaka withdrew comment #149

Presentation #7:
"Response to comments #161, #164, #166", Adee Ran
See: http://www.ieee802.org/3/cd/public/Jan17/ran_3cd_03a_0117.pdf
  * Clarifying questions were asked and answered.

Presentation #8:
"Consensus proposal for training state diagram (supporting comments 118, 101, and 19)", Adee Ran
See: http://www.ieee802.org/3/cd/public/Jan17/ran_3cd_02_0117.pdf
  * Clarifying questions were asked and answered.

Ali Ghiasi withdrew comments #112

Ali Ghiasi withdrew comments #113

Break at ~10:30 a.m. Resume at ~10:50 a.m.

Presentation #9:
"Issue with 50G PAM4 C2M Specification", Ali Ghiasi
See: http://www.ieee802.org/3/cd/public/Jan17/ghiasi_3cd_01a_0117.pdf
  * Clarifying questions were asked and answered.
  * General conclusion that this needed to be addressed by P802.3bs Task Force

Motion #3:

Move to:
- Accept the proposed responses to any unresolved comments listed in 8023cd_D11_comment_proposed_responses_bucket_list.pdf
- On page 281 Lines 34 and 39 change value 0.43 from magenta to black
- Generate Draft 1.2 for Task Force recirculation from Draft 1.1 and the closed comments
- Allow the presubmission of Draft 1.2 to IEEE 802.3 in anticipation of requesting WG Ballot in March 2017 on the chair's discretion

M: Matt Brown
S: Ali Ghiasi
Technical (>=75%),
Y: 38 N: 0 A: 2
Results: Passes

Motion #4:

Move to Adjourn:
- Moved by: Mike Dudek
- Second by: Steve Trowbridge
- Passed by voice vote without opposition

Meeting ended at ~11:50 a.m.

Attendees

P802.3cd, January 2017			11-Jan-17	12-Jan-17	13-Jan-17
Last Name	**First Name**	**Affiliation**	**Wed**	**Thurs**	**Fri**
Abbott	Justin	Lumentum	x	x	
Anslow	Pete	Ciena Corporation	x	x	x
Balasubramonian	Venugopal	Marvell	x	x	x
Baldwin	Thananya	Ixia	x	x	
Beaulieu	Tim	UNH-IOL	x		
Bernstein	Gary	Leviton	x		
Booth	Brad	Microsoft	x	x	x
Braun	Ralf-Peter	Deutsche Telekom	x	x	x
Brooks	Paul	Viavi Solutions	x	x	x
Brown	Matt	Applied Micro	x	x	x
Butter	Adrian	Global Foundries	x	x	x
Chalupsky	David	Intel	x	x	
Chang	Frank	Inphi	x	x	x
Cheema	Rajinder	Socionext	x		
Chen	David	Applied Optoelectronics		x	
Choudhury	G. Mabud	OFS	x		
Cole	Chris	Finisar	x	x	
Coppinger	Fred	Samtec	x	x	x
Dawe	Piers	Mellanox	x	x	x
Deborde	William	Intel	x		
Didde	Stephen	Keysight Technologies	x	x	
Dillow	Daniel	Amphenol	x	x	
DiMinico	Christopher	MC Communications/Panduit	x	x	x
Duda	Jim	Acacia Communications	x	x	x
Dudek	Mike	Cavium	x	x	x
Estes	Dave	Spirent Communications	x	x	x
Ewen	John	Global Foundries	x	x	x
Fife	James	eTopus Technology	x	x	x

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Flatman	Alan	LAN Technologies	x		
French	John	Centrum Calibration	x	x	
Ghiasi	Ali	Ghiasi Quantum, Huawei	x	x	x
Gorshe	Steve	microsemi	x	x	
Grow	Bob	RMG Consulting	x		
Gupta	Atul	MACOM	x		
Gustlin	Mark	Xilinx	x	x	
Hayakawa	Akinori	Fujitsu Laboratories	x	x	x
Healey	Adam	Broadcom Limited	x	x	x
Heck	Howard	Intel	x	x	x
Hegde	Raj	Broadcom	x	x	
Hidaka	Yasuo	Fujitsu Laboratories of America	x	x	x
Horner	Rita	Synopsys	x	x	
Huang	Xi	Huawei		x	
Isono	Hideki	Fujitsu Optical Components	x	x	x
Issenhuth	Tom	Microsoft	x	x	x
Jackson	Ken	Sumitomo	x	x	x
Kareti	Upen Reddy	Cisco	x	x	x
Kim	Yong	Broadcom	x		
Kimber	Mark	Semtech		x	x
Klempa	Mike	UNH-IOL	x	x	x
Kojima	Keisuke	Mitsubishi Electric Res. Lab	x	x	x
Kolesar	Paul	CommScope	x		
Krishnasamy	Kumaran	Broadcom	x	x	
Lane	Brett	Panduit Corp.	x		
Lapak	Jeff	UNH-IOL	x	x	
LeCheminant	Greg	Keysight Technologies	x		
Leung	Michael	Marvell Semiconductor	x		
Lewis	Dave	Lumentum		x	
Li	Mike	Intel	x	x	

Liu	Hai-Feng	Intel	x	x	
Liu	Zhenyu	Credo Semiconductor	x	x	x
Lusted	Kent	Intel	x	x	
Maki	Jeffery	Juniper Networks	x	x	x
Malicoat	David	Kazan	x	x	x
Malkiman	Yonatan	Mellanox	x	x	
McDonough	John	NEC America	x	x	x
Mei	Richard	Commscope	x	x	
Mellitz	Richard	Samtec	x	x	x
Moritake	Toshiyuki	JAE			x
Muir	Ron	JAE			x
Naumann	Ken	Cisco	x		
Nemr	Daniel	UNH-IOL	x		
Nicholl	Gary	Cisco	x	x	x
Nowell	Mark	Cisco	x	x	x
O'Neil	Adam	UNH-IOL	x	x	x
Ofelt	David	Juniper Networks	x	x	
Palkert	Tom	Molex - MACOM	x	x	x
Parthasarathay	Vasudevan	Broadcom	x		
Pepper	Gerald	Ixia	x	x	
Pham	Phong	US Conec	x	x	x
Poosarla	Uday	GigPeak	x		
Rabinovich	Rick	IXIA	x	x	x
Ran	Adee	Intel	x	x	x
Sakai	Toshiaki	Socionext	x	x	x
Sangha	Harmel	Socionext	x		
Sayre	Edward	Samtech LTD	x	x	
Schube	Scott	Intel	x	x	
Sedarat	Hossein	Aquantia	x		
Shariff	Masood	Commscope	x		
Shirani	Ramin	Aquantia	x		
Shrikhande	Kapil	Innovium	x	x	

Sisk	Jason	UNH-IOL	x		
Sommers	Scott	Molex	x	x	
Sone	Yoshiaki	NTT	x	x	
Squiers	Ron	Mentor Graphics	x	x	
Srivastava	Atul	NTT Electronics	x		
Stassar	Peter	Huawei	x	x	x
Stone	Rob	Broadcom	x	x	
Swanson	Steve	Corning	x	x	
Swirhun	Stan	FMAX Technologies	x		
Szczepanek	Andre	Inphi	x	x	
Tailor	Bharat	Semtech Corp	x		
Takahara	Tomoo	Fujitsu Laboratories	x	x	x
Tamura	Kohichi	Oclaro		x	
Thaler	Pat	Broadcom	x		
Tracy	Nathan	TE Connectivity	x	x	
Traverso	Matt	Cisco	x		
Trowbridge	Steve	Nokia	x	x	x
Uchzyma	Asami	Mitsubishi Electric		x	x
Ulrichs	Ed	Source Photonics	x	x	
Wang	Tongtong	Huawei	x	x	
Wang	Xinyuan	Huawei	x	x	
Webb	Christopher	Teledyne Lecroy	x	x	x
Welch	Brian	Luxtera	x	x	x
Wertheim	Oded	Mellanox	x	x	x
White	Martin	Cavium	x	x	
Xu	Qing	Belden	x	x	
Young	Adrian	Leviton	x	x	x
Zambell	Andrew	Amphenol	x	x	x
Zhuang	Yan	Huawei	x		
Zivny	Pavel	Tektronix	x	x	x