

Unapproved Minutes  
**IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force**  
Plenary Meeting  
November 6-7, 2017  
Orlando, FL, USA  
Prepared by Kent Lusted

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## **IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – November 6, 2017**

*Prepared by Kent Lusted*

IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet Task Force meeting convened at ~2:10 p.m., by Mark Nowell, Task Force Chair.

Chair welcomed attendees.

Introductions were made.

Chair reviewed agenda in [http://www.ieee802.org/3/cd/public/Nov17/agenda\\_3cd\\_01\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/agenda_3cd_01_1117.pdf)

### **Motion #1:**

Move to approve the agenda:

- Moved by: Thananya Baldwin
- Second by: Mike Dudek
- Passed by voice without opposition

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

### **Motion #2:**

Move to approve the September 2017 minutes:

- Moved by: Thananya Baldwin
- Second by: Rich Mellitz
- 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 Meeting 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/Nov17/agenda\\_3cd\\_01\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/agenda_3cd_01_1117.pdf)

Chair noted that there was a slide with a statement on the participation in IEEE 802 Meetings. Chair asked if there were questions about the participation requirements. No one responded.

**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 the intention to request to move to Sponsor Ballot at the closing Working Group Plenary meeting. The request to Working Group will be unconditional or conditional based on the scope of the changes made during comment resolution.

Chair noted that a liaison letter from the OIF was received with a copy of the OIF specifications. The Task Force will need to prepare a response for consideration. Chair also noted that a liaison letter from COBO was received and needs a response for consideration. The letters and documents are posted to the Task Force meeting website.

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

Chair reviewed the adopted objectives.

Chair reviewed the adopted timeline. Chair noted that there is an opportunity to reduce the adopted timeline by 1 meeting cycle by going to Sponsor Ballot at this meeting.

The technical presentations will be addressed during comment resolution.

**Goals for the meeting:**

- Comment Resolution
- Review Technical presentations
- Generate D2.3/D3.0

Chair discussed the process for forming the sponsor ballot pool. The Sponsor Ballot pool is open until 11 November 2017. Conditional approval occurs if there are substantive changes to the draft and asks for permission to go to Sponsor Ballot when Working Group ballot completes. Unconditional approval would move to Sponsor Ballot without the recirculation. Discussed several examples of substantive changes and the path to Sponsor Ballot.

Chair reviewed the meeting agenda.

#### Future Meetings:

- January 2018 Interim
  - Week of January 22, 2018 – Geneva, Switzerland
- March 2018 Plenary
  - Week of March 5, 2018 – Rosemont, IL, USA
- May 2018 interim
  - Week of May 21, 2018 – Pittsburgh, PA, USA

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

#### **IEEE P802.3cd Task Force Ad-hoc report:**

“802.3cd Task Force Ad-hoc report”, Kent Lusted

See: [http://www.ieee802.org/3/cd/public/Nov17/lusted\\_3cd\\_01\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/lusted_3cd_01_1117.pdf)

- Tentatively expect calls to resume on November 22, 2017. Announcement will be made over the email reflector.

#### **Presentation #1:**

“Chief Editor’s Report”, Matt Brown

See: [http://www.ieee802.org/3/cd/public/Nov17/brown\\_3cd\\_01\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/brown_3cd_01_1117.pdf)

- Chair thanked the editors and advisors for their efforts to review and produce the draft.

#### **Presentation #2:**

“Comment Agenda”, Matt Brown

See: [http://www.ieee802.org/3/cd/public/Nov17/brown\\_3cd\\_02\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/brown_3cd_02_1117.pdf)

- Matt reviewed the list of comments considered “bucket” worthy. (see: [http://www.ieee802.org/3/cd/comments/8023cd\\_D22\\_comment\\_proposed\\_responses\\_bucket\\_list.pdf](http://www.ieee802.org/3/cd/comments/8023cd_D22_comment_proposed_responses_bucket_list.pdf) )
- Matt 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 a motion during closing business.
- Matt reviewed the criteria to progress the draft from Working Group Ballot to LMSC Sponsor Ballot

Chair displayed the proposed liaison response to OIF. (see: [http://www.ieee802.org/3/cd/public/Nov17/IEEE\\_8023\\_to\\_OIF\\_CEI\\_1117\\_liaison.docx](http://www.ieee802.org/3/cd/public/Nov17/IEEE_8023_to_OIF_CEI_1117_liaison.docx) ) A few changes were made and saved.

Chair displayed the proposed liaison response to COBO. (see: [http://www.ieee802.org/3/cd/public/Nov17/IEEE\\_8023\\_to\\_COBO\\_liaison.docx](http://www.ieee802.org/3/cd/public/Nov17/IEEE_8023_to_COBO_liaison.docx) ) Chair noted that the liaison was sent to the Working Group and assigned to P802.3cd. Chair suggested that the liaison response be generic and not include a draft of the specification. Jeff Maki noted that the intent of the liaison was to provide IEEE 802.3 with a copy of the COBO draft. A few changes were made and saved.

**Motion #3:**

Move that the Task Force approve the text in:

- IEEE\_802d3cd\_to\_OIF\_CEI\_1117\_liaison.docx with editorial license granted to the Chair (or his appointed agent) as a liaison to OIF
  - IEEE\_8023\_to\_COBO\_liaison.docx with editorial license granted to the Chair (or his appointed agent) as a liaison to COBO.
- M: Thananya Baldwin
  - S: Mike Dudek
  - Procedural (>50%)
  - Results: passes by voice w/o opposition

Piers Dawe withdrew comment #17.

Comment resolution began.

Break at ~3:00 p.m. Resume at ~3:25 p.m.

Chair announced a start time of 8:30 a.m. on Tuesday.

Chair 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 a motion during closing business.

Chair reminded participants to sign the attendance book.

Break for the day at ~5:30 p.m.

# **IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – November 7, 2017**

*Prepared by Kent Lusted*

Meeting convened at ~8:35 a.m. by Mark Nowell.

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

Chair 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 a motion during closing business.

Chair outlined the plans for the day.

## **Presentation #3:**

“VEC spec for 50GAUI-1 C2M and 100GAUI-2 C2M re: Comment 30”, Piers Dawe

See: [http://www.ieee802.org/3/cd/public/Nov17/dawe\\_3cd\\_01\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/dawe_3cd_01_1117.pdf)

Comment resolution continued.

## **Presentation #4:**

“SNR<sub>ISI</sub>”, Piers Dawe

See: [http://www.ieee802.org/3/cd/public/Nov17/dawe\\_3cd\\_02\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/dawe_3cd_02_1117.pdf)

- Discussed the impact of SNR-ISI on COM.

Break at ~10:00 a.m. Resumed ~10:30 a.m.

Comment resolution continued.

Chair noted that he has not received any requests to pull comments from the bucket.

Chief Editor reviewed the remaining unsatisfied comments from Draft 2.0 and Draft 2.1. Mike Dudek indicated that he was now satisfied with the response to unsatisfied comment #20113.

Chief Editor indicated that there are ~20 unsatisfied comments remaining after the review.

Break at ~12:00 p.m. Resumed at ~1:30 p.m.

Kent Lusted resumed the Task Force on behalf of Mark Nowell. He summarized the plans for the afternoon are to hear presentations that are not associated with a comment and then perform closing business.

## **Presentation 5:**

“RL, ERL, COM, & PTDR alternative to remedies for comments 16, 21, 22, 25 for D2.2 and unsatisfied comments 21037,21049. 21050, 21052, and 20113”, Rich Mellitz

See: [http://www.ieee802.org/3/cd/public/Nov17/mellitz\\_3cd\\_01b\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/mellitz_3cd_01b_1117.pdf)

- Author noted that there was an error in the posted '01a' version. Will provide an updated '01b' version.

#### **Presentation #6:**

"53.125 Gb /s, DML, PAM /s, DML, PAM-4 10 km Transmission: FFE Tap Perspective Number", Prashant Baveja

See: [http://www.ieee802.org/3/cd/public/Nov17/baveja\\_3cd\\_01\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/baveja_3cd_01_1117.pdf)

- Presented measurement data and suggests an increase in # FFE taps might provide better correlation between TDECQ and Rx sensitivity

Break at ~3:00 p.m. Resumed at ~3:20 p.m.

#### **Presentation #7:**

"Optical PAM4 RX SRS Results Update", Frank Chang

See: [http://www.ieee802.org/3/cd/public/Nov17/chang\\_3cd\\_01\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/chang_3cd_01_1117.pdf)

- Clarifying questions were asked and answered.

Chair reminded participants that they have until 11 November 2017 to join the Sponsor Ballot pool.

See <http://www.ieee802.org/3/cd/email/msg00321.html> for the details.

#### **Presentation #8:**

"What you need to know about Sponsor ballot", Pete Anslow

See: [http://www.ieee802.org/3/cd/public/Nov17/anslow\\_3cd\\_01\\_1117.pdf](http://www.ieee802.org/3/cd/public/Nov17/anslow_3cd_01_1117.pdf)

- The comment tool for Sponsor Ballot is different from that of Working Group ballot and Task Force review. Use the page and line numbers from the clean draft, not the compare version.

#### **Motion #4:**

Move to:

- Accept the proposed responses to any unresolved comments listed in 8023cd\_D22\_comment\_proposed\_responses\_bucket\_list.pdf
- Generate Draft 3.0 Preview from Draft 2.2 and closed comments
- M: Matt Brown
- S: Adee Ran
- Technical ( $\geq 75\%$ ),
- Y: 68 N: 0 A: 2

Results: passes

Matt Brown displayed the D3.0Preview text and reviewed the changes from D2.2 (see [http://www.ieee802.org/3/cd/private/8023cd\\_D3p0preview-compare-marked-up.pdf](http://www.ieee802.org/3/cd/private/8023cd_D3p0preview-compare-marked-up.pdf)) . Chair noted that he had reviewed the changes with the editorial team and there was consensus that the changes were not substantial. Chair asked for feedback from the Task Force. There was a

comment from the floor that there were open unsatisfied comments. Chair asked if there was objection to proceeding with unconditional request for Sponsor Ballot. None was raised.

**Motion #5:**

Move to re-affirm the CSD responses in <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0060-02-ACSD-802-3cd.pdf> and request approval to progress the P802.3cd draft to IEEE 802 LMSC sponsor ballot.

- M: Ed Sayre
- S: Adee Ran
- Technical ( $\geq 75\%$ ),
- Y: 68 N: 1 A: 3
- Results: passes

**Attendance Straw Polls:**

- I will attend the IEEE P802.3cd meetings at the January interim in Geneva, Switzerland (week of January 22, 2018)
  - P802.3cd: Y: 43 , M: 13
- I will attend the IEEE P802.3cd meetings at the March plenary in Chicago, IL, USA (week of March 4, 2018)
  - P802.3cd: Y: 53 , M: 12

**Motion #6:**

Move to Adjourn:

- Moved by: Brad Booth
- Second by: Steve Trowbridge
- Passed by voice vote without opposition

Meeting ended at ~5 p.m.



## Attendees

P802.3cd, November 2017			6-Nov-17	7-Nov-17
Last Name	First Name	Affiliation	Monday	Tuesday
Abbott	John	Corning	x	x
Anslow	Pete	Ciena Corporation	x	x
Balan	Vishnu	nVidia	x	x
Baldwin	Thananya	Ixia	x	x
Baveja	Prashant	AOI	x	x
Beauregard	Francois	Belden	x	x
Bernstein	Gary	Leviton	x	x
Bouda	Martin	Fujitsu	x	x
Braun	Ralf-Peter	Deutsche Telekom	x	x
Brooks	Paul	Viavi Solutions	x	x
Brown	Matt	MACOM	x	x
Buffington	John	Itron Inc.		x
Burrell	Gary	Elenion Technologies	x	x
Butter	Adrian	Global Foundries	x	x
Calvin	John	VTM	x	x
Chalupsky	David	Intel	x	x
Chang	Frank	Inphi	x	x
Cheir	Ricky	Airguin	x	
Chen	C. C. David	Applied Optoelectronics	x	x
Conroy	Keith	Acacia	x	
Didde	Stephen	Keysight Technologies	x	
DiMinico	Christopher	MC Communications/ Panduit	x	x
Djahanshahi	Hormoz	microsemi	x	x
Dudek	Mike	Cavium	x	x
Ellison	Jason	the Siemon Company	x	x
Estes	Dave	Spirent Communications	x	

Ewen	John	Global Foundries	x	x
Fathi	Borhan	Nvidia		x
Fukutoku	Mitsunori	NTT	x	x
Ghiasi	Ali	Ghiasi Quantum, Huawei		x
Gong	Zhigang	O-net	x	
Gorshe	Steve	microsemi	x	x
Gustlin	Mark	Xilinx	x	
Hayakawa	Akinori	Fujitsu Laboratories	x	x
Haynes	Hayden	UNH-IOL		x
Healey	Adam	Broadcom Limited	x	x
Heck	Howard	Intel	x	x
Hegde	Raj	Broadcom	x	x
Hidaka	Yasuo	Independent	x	x
Ho	I Lung	AOI	x	x
Horner	Rita	Synopsys	x	x
Huang	Xi	Huawei	x	x
Ingham	Jonathan	Foxconn Interconnect Technology	x	
Ishibe	Kazuhiko	Anristu	x	x
Isono	Hideki	Fujitsu Optical Components	x	x
Issenhuth	Tom	Huawei	x	
Kabra	Lokesh	Synopsys	x	
Kagami	Manabu	Toyota CRDL	x	x
Kawatsu	Yasuaki	Apresia Systems		x
Kimber	Mark	Semtech	x	x
King	Jonathan	Finisar Corp.	x	
Klempa	Mike	UNH-IOL	x	x
Kochuparambil	Beth	Cisco	x	
Kolesar	Paul	CommScope	x	x

Lambrech	Frank	Gigamon Inc	x	x
LeCheminant	Greg	Keysight Technologies	x	x
Lim	Jane	Cisco	x	x
Lingle, Jr.	Robert	OFS	x	
Liu	Karen	Kaian	x	x
Lusted	Kent	Intel	x	x
Maki	Jeffery	Juniper Networks	x	x
Malicoat	David	Senko	x	x
Marris	Arthur	Cadence	x	
Matoglu	Erdem	Amphenol	x	x
Mazzini	Marco	Cisco	x	
McClellan	Brett	Marvell Semiconductor	x	
McMillan	Larry	Western Digital	x	
Mellitz	Richard	Samtec	x	x
Mitcheltru	Tom	US Conec		x
Murphy	Rick	vLogic		x
Murray	Dale	Lightcounting	x	x
Nakamoto	Edward	Spirent Communications	x	x
Neveux	Paul	Superior Essex		x
Nishimura	Takeshi	Yamaichi Electronics		x
Nowell	Mark	Cisco	x	x
Palkert	Tom	Molex - MACOM	x	x
Parthasarathay	Vasudevan	Broadcom		x
Pepper	Gerald	Ixia	x	
Pham	Phong	US Conec	x	x
Piehler	David	Dell EMC	x	x
Poelstra	Henry	Teledyne Lecroy	x	x
Rabinovich	Rick	IXIA	x	x
Ran	Adee	Intel	x	x

Ressler	Mike	Hitachi Cable America	x	x
Rotolo	Salvatore	ST Microelectronics	x	x
Sakai	Toshiaki	Socionext	x	x
Sambasivan	Sam	AT&T		x
Sayre	Edward	Samtec	x	x
Schube	Scott	Intel	x	x
Sekel	Steve	Keysight Technologies	x	x
Shirao	Mizuki	Mitsubishi Electric	x	x
Smith	Daniel	Seagate		x
Sommers	Scott	Molex	x	x
Sone	Yoshiaki	NTT	x	x
Sprague	Ted	Infinera	x	x
Stassar	Peter	Huawei	x	x
Stone	Rob	Broadcom	x	x
Sun	Liyang	Huawei	x	
Sun	Phil	Credo	x	x
Swanson	Steve	Corning		x
Tailor	Bharat	Semtech Corp	x	x
Takahara	Tomoo	Fujitsu Laboratories	x	x
Takai	Yosuke	Yamaichi Electronics	x	x
Tamura	Kohichi	Oclaro	x	x
Toyserkani	Pirooz	Cisco	x	x
Traverso	Matt	Cisco	x	
Trowbridge	Steve	Nokia	x	x
Twombly	Jeff	Credo	x	x
Ulrichs	Ed	Source Photonics	x	x
Vitali	Marco	Siceya	x	x
Wang	Yi	AOI	x	x

Welch	Brian	Luxtera		x
Yamamoto	Shuto	NTT	x	x
Yang	Kai	Global Foundries	x	x
Young	Adrian	Leviton	x	x
Young	James	Commscope	x	x
Zambell	Andrew	Amphenol	x	x
Zhang	Kevin	IDT	x	x
Zivny	Pavel	Tektronix	x	x