

# Unapproved Minutes

## IEEE P802.3cn / IEEE P802.3ct Joint Task Force Meeting (5/20 – 5/21) IEEE P802.3cn Task Force Meeting (5/21) IEEE P802.3ct Task Force Meeting (5/21)

IEEE 802.3 May 2019 Interim

Prepared by Jim Theodoras and Pete Anslow

All times MT

Location: Sheraton Salt Lake City Hotel, Salt Lake City, UT, USA

## IEEE P802.3cn / IEEE P802.3ct Joint Task Force Meeting

The meeting called to order at 9:02 am, May 20, 2019

Chaired by Pete Anslow

Chair explained how the meetings would be run –

- The IEEE P802.3cn Task Force and IEEE P802.3ct Task Force will meet jointly starting Mon 9am.
- The IEEE P802.3cn Task Force will meet Tuesday @ 1pm (Note – Task Force meeting will happen no earlier than this time, but may be delayed due to schedule.)
- The IEEE P802.3ct Task Force will meet Tuesday @ 2pm (Note – Task Force meeting will happen no earlier than this time, but may be delayed due to schedule.)
- Joint Task Force Meeting, P802.3cn, P802.3ct Task Force meetings will adjourn by Tues 6pm at the latest

General Introductions were made by participants.

**Presentation #1 –** Agenda and General Information  
IEEE P802.3cn Task Force Meeting & Joint Task Force Meeting with IEEE P802.3ct Task Force  
**Presenter:** Pete Anslow  
**URL:** [http://www.ieee802.org/3/ct/public/19\\_05/agenda\\_3cnct\\_01c\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/agenda_3cnct_01c_0519.pdf)

**Motion #1:** Move to approve the Joint Task Force Agenda (noted on Page 3 of agenda\_3cn\_01c\_0519.pdf)  
**Results:** Approved by voice vote without opposition

Chair asked if there were any press in the room. Nobody identified themselves as representing the press.

**Motion #2:** Move to approve the following minutes –

- March Joint TF Meeting (Joint TF noted) –  
[http://www.ieee802.org/3/ct/public/19\\_03/minutes\\_3cnct\\_01\\_0319\\_unapproved.pdf](http://www.ieee802.org/3/ct/public/19_03/minutes_3cnct_01_0319_unapproved.pdf)
- 5/9 Joint TF Ad hoc Teleconference -  
[http://www.ieee802.org/3/cn/public/adhoc/19\\_0509/minutes\\_3cnct\\_190509\\_unapproved.pdf](http://www.ieee802.org/3/cn/public/adhoc/19_0509/minutes_3cnct_190509_unapproved.pdf)

**Results:** Approved by voice vote without opposition

Chair showed IEEE 802 Participation slide.

Chair reviewed Task Force Decorum slide.

Chair reviewed P802.3cn and P802.3ct Task Force information. Chair introduced the two editorial teams and noted that Tom Issenhuth had volunteered to be IEEE P802.3ct Task Force Chief Editor.

Chair noted attendance tools.

Chair presented the Patent Policy Slides for IEEE-SA meetings.

Chair advised the Task Force of the following:

- 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 IEEE is not aware. Additionally, neither 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 noted

- That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
- That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard

There were no responses to the Chair's Call for Potentially Essential Patents

Chair reviewed Ground rules and the role of the chair.

The Chair reviewed important bylaws, rules, & references, and gave an overview of the IEEE 802.3 Standards Process.

Chair reviewed goals for week –

- Joint P802.3cn / P802.3ct Task Force Meeting
  - Consider comments (presentations) submitted against IEEE P802.3cn D2.0
  - Hear 5 (.3ct) technical presentations / baseline proposals
  - Consider liaison from ITU-T
  - Consider liaison from OIF
- P802.3cn Task Force Meeting – Tues 1pm to 2pm
  - Approve responses to comments submitted against D2.0
  - Approve Generation of D2.1
- P802.3ct Task Force Meeting – Tues 2pm to 6pm
- Additional time for .3ct presentations / strawpolls
- Baseline adoption
- Motions & Closing Business

Chair reviewed liaisons:

- Incoming to consider -
  - ITU-T SG15 to IEEE 802.3 on test results for spectral excursion
    - [http://www.ieee802.org/3/minutes/may19/incoming/ITU\\_SG15-LS-181\\_to\\_IEEE\\_802d3.pdf](http://www.ieee802.org/3/minutes/may19/incoming/ITU_SG15-LS-181_to_IEEE_802d3.pdf)
  - OIF to IEEE 802.3 regarding progress on the OIF 400ZR project
    - [http://www.ieee802.org/3/minutes/may19/incoming/OIF\\_to\\_IEEE\\_802.3\\_400ZR\\_May\\_2019.pdf](http://www.ieee802.org/3/minutes/may19/incoming/OIF_to_IEEE_802.3_400ZR_May_2019.pdf)
    - [Attachment](#) (Password protected)
    - Potential Outgoing - RE: Comment #16, IEC 60793-2-50 2018 – updated single-mode fiber naming convention to be more in line with ITU-T
  - IEEE 802.3 to IEC – Request IEC 60793-2-50 2018

Chair reviewed ad hoc report of the two task forces.

- IEEE P802.3ct
  - 3/28: [http://www.ieee802.org/3/ct/public/adhoc/19\\_0328/index.html](http://www.ieee802.org/3/ct/public/adhoc/19_0328/index.html)

- Topics: DCI Data, Recommendations for Rx PMD & Polarization Demux test specs; 400GBASE-ZR Tx EVM, Polarization Mode Dispersion Emulators
- Joint IEEE P802.3cn / P802.3ct
  - 4/4: [http://www.ieee802.org/3/cn/public/adhoc/19\\_0404/index.html](http://www.ieee802.org/3/cn/public/adhoc/19_0404/index.html)
    - [.3cn] ER/FR/LR Interop Requirements; [.3ct] Reviewing path ahead for P802.3ct
  - 4/25: [http://www.ieee802.org/3/cn/public/adhoc/19\\_0425/index.html](http://www.ieee802.org/3/cn/public/adhoc/19_0425/index.html)
    - [.3ct] P802.3ct 100G Optical Parameters
  - 5/2: [http://www.ieee802.org/3/cn/public/adhoc/19\\_0502/index.html](http://www.ieee802.org/3/cn/public/adhoc/19_0502/index.html)
    - [.3cn] comment consideration / consensus building; [.3ct] Baseline Proposal: 400GBASE-ZR Optical Specs,
  - 5/9: [http://www.ieee802.org/3/cn/public/adhoc/19\\_0509/index.html](http://www.ieee802.org/3/cn/public/adhoc/19_0509/index.html)
    - [.3cn] comment consideration / consensus building/presentation; [.3ct] Proposal for common EVM methodology

Chair reviewed the schedule for the joint task force meeting, and noted the start times for the IEEE P802.3cn and IEEE P802.3ct Task Force meetings.

Presentation #2 - P802.3cn Chief Editor's Report  
 Presenter: Pete Anslow  
 URL: [http://www.ieee802.org/3/cn/public/19\\_05/anslow\\_3cn\\_02a\\_0519.pdf](http://www.ieee802.org/3/cn/public/19_05/anslow_3cn_02a_0519.pdf)

Time: 9:47am  
 Resolution of comments against IEEE P802.3cn D2.0 continued. (Some comments were resolved on two previous Ad Hoc calls)

Break: 10:10am  
 Reconvened: 10:32am

Comment resolution continued.  
 Comment resolution completed at 11:37am

Final Responses to comments against D2.0:  
 URL: [http://www.ieee802.org/3/cn/comments/P802d3cn\\_D2p0\\_comments\\_final\\_CI.pdf](http://www.ieee802.org/3/cn/comments/P802d3cn_D2p0_comments_final_CI.pdf)

Chair asked if there were any requests to reopen any of the comments closed on the two Ad Hoc calls. There were no such requests.

Chair asked if there were any requests to take any of the comments out of the "Bucket" as listed on slide 10 of anslow\_3cn\_02a\_0519. There were no such requests.

Chair asked if there was any objection to hearing a late presentation from Frank Chang (chang\_3cn\_02\_0519). There was no objection.

Presentation #3 - Re: Comments on 200/400G-ER4/8 Link Budgets (#38,#39); And is a New PHY required?  
 Presenter: Frank Chang  
 URL: [http://www.ieee802.org/3/cn/public/19\\_05/chang\\_3cn\\_02\\_0519.pdf](http://www.ieee802.org/3/cn/public/19_05/chang_3cn_02_0519.pdf)

Break for Lunch 12:05pm  
 Reconvened at 1:30pm

Presentation #4 - P802.3ct Chief Editor's Report  
 Presenter: Tom Issenhuth  
 URL: [http://www.ieee802.org/3/ct/public/19\\_05/issenhuth\\_3ct\\_01\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/issenhuth_3ct_01_0519.pdf)

Presentation #5 - Data to Support 100G Optical Parameter Selection  
 Presenter: Matt Schmitt  
 URL: [http://www.ieee802.org/3/ct/public/19\\_05/schmitt\\_3ct\\_01\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/schmitt_3ct_01_0519.pdf)

General Discussion

Presentation #6 - Further baseline considerations and proposals for 100G and 400G DWDM Objectives  
Presenter: Peter Stassar  
URL: [http://www.ieee802.org/3/ct/public/19\\_05/stassar\\_3ct\\_01\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/stassar_3ct_01_0519.pdf)

General Discussion

Presentation #7- Proposal for 400GBASE-ZR DWDM Optical Specs Baseline  
Presenter: Bo Zhang  
URL: [http://www.ieee802.org/3/ct/public/19\\_05/zhang\\_3ct\\_01\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/zhang_3ct_01_0519.pdf)

General Discussion

Presentation #8 - Dispersion Spec Trade-offs for 80km Objective  
Presenter: Ilya Lyubomirsky  
URL: [http://www.ieee802.org/3/ct/public/19\\_05/lyubomirsky\\_3ct\\_01\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/lyubomirsky_3ct_01_0519.pdf)

General Discussion

Pete Anslow reviewed the content of the liaison from ITU-T SG15:

Presentation #9 - Liaison from ITU-T SG15 on test results for spectral excursion  
URL: [http://www.ieee802.org/3/minutes/may19/incoming/ITU\\_SG15-LS-181\\_to\\_IEEE\\_802d3.pdf](http://www.ieee802.org/3/minutes/may19/incoming/ITU_SG15-LS-181_to_IEEE_802d3.pdf)

It was agreed that no response to ITU-T SG15 was required from this meeting.

Attendance Poll: July plenary Attendance  
Results All: I will attend – 16  
I may attend – 5  
I won't attend – 2

Attendance Poll: September interim Attendance  
Results All: I will attend – 19  
I may attend – 0  
I won't attend – 9

General Discussion

Break for day at ≈ 5:05 pm.

Meeting reconvened 9:00am, May 21, 2019

Chair showed IEEE 802 Participation slide.

Presentation #10 - P802.3ct mean time to false packet acceptance (MTTFPA)  
Presenter: Pete Anslow  
URL: [http://www.ieee802.org/3/ct/public/19\\_05/anslow\\_3ct\\_01\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/anslow_3ct_01_0519.pdf)

Pete Anslow reviewed the content of the liaison from OIF and its attachment:

Presentation #11 - Liaison from OIF  
URL: [http://www.ieee802.org/3/minutes/may19/incoming/OIF\\_to\\_IEEE\\_802.3\\_400ZR\\_May\\_2019.pdf](http://www.ieee802.org/3/minutes/may19/incoming/OIF_to_IEEE_802.3_400ZR_May_2019.pdf)  
URL: [http://www.ieee802.org/3/private/liaison\\_docs/OIF/OIF\\_to\\_IEEE\\_802.3\\_400ZR\\_May\\_2019\\_att1.pdf](http://www.ieee802.org/3/private/liaison_docs/OIF/OIF_to_IEEE_802.3_400ZR_May_2019_att1.pdf)

It was agreed that due to the alignment of the IEEE 802.3 and OIF meetings, any response would be made at the July plenary meeting.

The draft liaison to IEC SC86A was also reviewed:

Presentation #12 - Draft liaison to IEC SC86A  
Presenter: Pete Anslow on behalf of John D'Ambrosia  
URL: [http://www.ieee802.org/3/cn/public/19\\_05/dambrosia\\_3cn\\_01\\_0519.pdf](http://www.ieee802.org/3/cn/public/19_05/dambrosia_3cn_01_0519.pdf)

Minor changes were made to the draft liaison

URL: [http://www.ieee802.org/3/cn/public/19\\_05/IEEE\\_802d3\\_to\\_IEC\\_3cn\\_0519\\_draft.pdf](http://www.ieee802.org/3/cn/public/19_05/IEEE_802d3_to_IEC_3cn_0519_draft.pdf)

Break for lunch at 11:45pm

# IEEE P802.3cn Task Force Meeting

The meeting called to order at 1:00pm, May 21, 2019 Chaired by Pete Anslow

**Presentation #1 –** Agenda and General Information  
IEEE P802.3cn Task Force Meeting & Joint Task Force Meeting with IEEE P802.3ct Task Force  
**Presenter:** Pete Anslow  
**URL:** [http://www.ieee802.org/3/ct/public/19\\_05/agenda\\_3cnct\\_01c\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/agenda_3cnct_01c_0519.pdf)

**Motion #1:** Move to approve the P802.3cn Task Force Agenda (noted on Page 5 of agenda\_3cn\_01c\_0519.pdf)  
**Moved by:** Steve Trowbridge  
**Second by:** Peter Stassar  
**Result:** Approved by voice vote without opposition

Chair showed IEEE 802 Participation Slide

**Motion #2:** Motion to approve minutes  
March Joint TF Meeting (IEEE P802.3cn noted) –  
[http://www.ieee802.org/3/ct/public/19\\_03/minutes\\_3cnct\\_01\\_0319\\_unapproved.pdf](http://www.ieee802.org/3/ct/public/19_03/minutes_3cnct_01_0319_unapproved.pdf)  
**Moved by:** Steve Trowbridge  
**Second by:** Peter Stassar  
**Result:** Approved by voice vote without opposition  
Chair presented the Patent Policy Slides for IEEE-SA meetings.

There were no responses to the Chair's Call for Potentially Essential Patents

**Straw poll #1:** I would support adopting 30 km variants in addition to 200GBASE-ER4 and 400GBASE-ER8

**Results All** Yes: 2  
No: 10  
Need more information: 3  
Abstain: 11

**Motion #3:** Move that the IEEE P802.3cn Task Force:

- Adopt proposed responses to remaining comments, noted as “bucket” on slide 10 of anslow\_3cn\_02a\_0519.pdf
- Generate Draft 2.1 for WG Recirculation from D2.0 and closed comments

**Moved by:** Pavel Zivny  
**Second by:** Steve Trowbridge  
**Motion** Technical ( $\geq 75\%$ )  
**Results:** Approved by voice vote without opposition.

Proposed liaison response to IEC (provided by D'Ambrosia) was reviewed by the P802.3cn Task Force.

**Motion #4:** Move that the IEEE P802.3cn Task Force approve:  
IEEE\_802d3\_to\_IEC\_3cn\_0519\_draft with editorial license granted to the Chair (or his appointed agent) as a liaison communication from the IEEE 802.3 Working Group to IEC.

**Moved by:** Peter Stassar  
**Second by:** John DeAndrea  
**Motion** Technical ( $\geq 75\%$ )  
**Results:** Approved by voice vote without opposition.

Meeting broke at 1:40pm

# IEEE P802.3ct Task Force Meeting

The meeting called to order at 2:00pm, May 21, 2019 Chaired by Pete Anslow

**Presentation #1 –** Agenda and General Information  
IEEE P802.3cn Task Force Meeting & Joint Task Force Meeting with IEEE P802.3ct Task Force  
**Presenter:** Pete Anslow  
**URL:** [http://www.ieee802.org/3/ct/public/19\\_05/agenda\\_3cnct\\_01c\\_0519.pdf](http://www.ieee802.org/3/ct/public/19_05/agenda_3cnct_01c_0519.pdf)

**Motion #1:** Move to approve the P802.3ct Task Force Agenda (noted on Page 8 of agenda\_3cn\_01c\_0519.pdf)  
**Moved by:** Steve Trowbridge  
**Second by:** Peter Stassar  
**Results:** Approved by voice vote without opposition

Chair showed IEEE 802 Participation Slide

**Motion #2:** Motion to approve minutes

- March Joint TF Meeting (IEEE P802.3ct noted) – [http://www.ieee802.org/3/ct/public/19\\_03/minutes\\_3cnct\\_01\\_0319\\_unapproved.pdf](http://www.ieee802.org/3/ct/public/19_03/minutes_3cnct_01_0319_unapproved.pdf)
- 3/28 IEEE P802.3ct Ad hoc Teleconference - [http://www.ieee802.org/3/ct/public/adhoc/19\\_0328/minutes\\_3ct\\_190328\\_a\\_unapproved.pdf](http://www.ieee802.org/3/ct/public/adhoc/19_0328/minutes_3ct_190328_a_unapproved.pdf)

**Moved by:** Steve Trowbridge  
**Second by:** Peter Stassar  
**Results:** Approved by voice vote without opposition

Chair presented the Patent Policy Slides for IEEE-SA meetings.  
There were no responses to the Chair's Call for Potentially Essential Patents

**Straw poll #1:** I support using a common optical specification methodology for 100 Gb/s and 400 Gb/s in P802.3ct:

**Results All** Yes: 25  
No: 0  
Need more information: 3

**Break:** 3:05pm  
**Reconvened:** 3:38pm

**Straw poll #2:** As the basis of the 100GBASE-ZR and 400GBASE-ZR optical spec baselines I support:  
A) the tables and listed parameters on slides 5 – 7 from stassar\_3ct\_01a\_0519  
B) individual measurable Rx impairment compliance as per zhang\_3ct\_01\_0519:

**Results All** A: 8  
B: 9  
Need more information: 10

**Straw poll #3:** I support the following maximum dispersion spec. to achieve 80km objective in **100GBASE-ZR**:  
A). 1600 ps/nm consistent with 80km distance (D=20 ps/nm)  
B). 1800 ps/nm consistent with 90km distance (D=20 ps/nm)  
C). 2400 ps/nm consistent with 120km distance (D=20 ps/nm)  
D). Need more information

Choose one only.:

Results All  
A): 8  
B): 3  
C): 8  
D): 4

Straw poll #4: I support the following maximum dispersion spec. to achieve 80km objective in **400GBASE-ZR**:  
A). 1600 ps/nm consistent with 80km distance (D=20 ps/nm)  
B). 1800 ps/nm consistent with 90km distance (D=20 ps/nm)  
C). 2400 ps/nm consistent with 120km distance (D=20 ps/nm)  
D). Need more information

Choose one only.:

Results All  
A): 10  
B): 1  
C): 6  
D): 5

Chair announced that a meeting on Editorial matters would follow immediately after the closure of the current meeting and that anyone was able to attend.

**Motion:** Adjourn joint P802.3cn/ P802.3ct Joint Task Force, P802.3cn Task Force, and P802.3ct Task Force meetings.

Moved by Matt Schmitt

Second by: Ilya Lyubomirsky

Results: Approved by voice vote without opposition

Meetings adjourned at 4:50pm.

Meeting Attendees

IEEE P802.3cn / IEEE P802.3ct Joint Task Force Meeting (3/11 – 3/12)

IEEE P802.3cn Task Force Meeting (3/12)

IEEE P802.3ct Task Force Meeting (3/12)

Last Name	First Name	Employer	Affiliations	Mon	Tues
Anslow	Pete	Ciena Corporation	Ciena Corporation	x	x
Braun	Ralf-Peter	Deutsche Telekom	Deutsche Telekom	x	x
Brooks	Paul	Viavi Solutions	Viavi Solutions	x	
Brown	Matt	Macom	Macom	x	
Chang	Frank	Source Photonics	Source Photonics	x	x
Chen	C.C David	AOI	AOI	x	
Coffey	Joseph	CommsScope	Commscope		x
Conroy	Keith	Acacia	Acacia	x	x
DeAndrea	John	Finisar	Finisar	x	x
Dodge	Matthew	UNH-IOL	UNH-IOL	x	
Duke	Kae	UNH-IOL	UNH-IOL	x	
Estes	Dave	Spirent Communications	Spirent Communications	x	
Ferretti	Vincent	Corning	Corning	x	
Ghiasi	Ali	Ghiasi Quantum, Ghiasi Quantum	Ghiasi Quantum, Ghiasi Quantum	x	
Gong	Zhigang	D-Net	D-Net	x	x
Gorshe	Steve	Microsemi	Microsemi	x	x
Healey	Adam	Broadcom LTD	Broadcom LTD	x	
Hiraki	Kukia	Yamaichi	Yamaichi	x	
Isono	Hideki	Fujitsu Optical Components	Fujitsu Optical Components	x	x
Issenhuth	Tom	Issenhuth Consulting	Issenhuth Consulting, Huawei	x	x
Kareti	Upen Reddy	Cisco	Cisco	x	
Kimber	Mark	Semtech	Semtech	x	
Law	David	HPE	HPE	x	
LeCheminant	Greg	Keysight Technologies	Keysight Technologies	x	
Lewis	David	Lumentum	Lumentum	x	x
Liu	Karen	Lightwave Logic	Lightwave Logic	x	
Lyubomirsky	Ilya	Inphi	Inphi	x	x
Maj	Tomas	Inphi	Inphi	x	
Maki	Jeffery	Juniper Networks	Juniper Networks	x	x

Malicoat	David	Malicoat Networking Solutions / Senko	Malicoat Networking Solutions / Senko	x	
Nakamoto	Edward	Spirent Communications	Spirent Communications	x	
Nicholl	Shawn	Xilinx	Xilinx	x	
Ofelt	David	Juniper Networks	Juniper Networks	x	x
Pham	Phong	US Conec Ltd	US Conec Ltd	x	
Pozzebon	Dino	Microsemi	Microsemi	x	
Radhamohan	Rageshmohan	Maxlinear	Maxlinear	x	
Rechtman	Zvi	Mellanox	Mellanox	x	
Schmitt	Matt	Cablelabs	Cablelabs	x	x
Sprague	Ted	Infinera	Infinera	x	x
Stassar	Peter	Huawei	Huawei	x	
Sun	Junging	Credo Semiconductor	Credo Semiconductor	x	
Takahara	Tomoo	Fujitsu	Fujitsu	x	x
Terada	Masaru	OFS	OFS	x	x
Theodoras	Jim	HG Genuine	HG Genuine	x	x
Tracy	Nathan	TE Connectivity	TE Connectivity	x	
Trowbridge	Steve	Nokia	Nokia	x	x
Wang	Derek	Cetre Networks	Centre Networks	x	
Wang	Xinyuan	Huawei	Huawei	x	x
Yamamoto	Shuto	NTT	NTT	x	x
Zhang	Bo	Inphi	Inphi	x	x
Zivny	Pavel	Tektronix	Tektronix	x	