Approved Minutes

IEEE P802.3cu 100 Gb/s and 400 Gb/s over SMF at 100 Gb/s per Wavelength Task Force

Interim Meeting

March 17, 2020

Interim Teleconference

Prepared by Kenneth Jackson and Mark Nowell

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IEEE P802.3cu 100 Gb/s and 400 Gb/s over SMF at 100 Gb/s per Wavelength Task Force – March 17, 2020

Prepared by Kenneth Jackson

Meeting convened at 2PM (GMT) 7AM (Pacific)
Chaired by Mark Nowell.
Attendance pulled from the WebEx tool. If joining via phone (only) send email to Mark Nowell stating your attendance.

Chair reviewed agenda in
http://www.ieee802.org/3/cu/public/March20/agenda_3cu_01a_031720.pdf

Motion #1:
Move to approve the agenda for the IEEE P802.3cu 100 Gb/s and 400 Gb/s Operation over Single-Mode Fiber at 100 Gb/s per Wavelength Task Force
- ● Moved by: Stephen Trowbridge
- ● Second by: Massimo Sorbara
Approved by voice without opposition.

Minutes from the previous meeting (Geneva) were posted shortly after the Jan 2020 Task Force Group meeting.

Motion #2:
Move to approve the Jan 2020 minutes from the IEEE P802.3cu 100 Gb/s and 400 Gb/s Operation over Single-Mode Fiber at 100 Gb/s per Wavelength Task Force
- ● Moved by: Massimo Sorbara
- ● Seconded by: John Abbott
Approved by voice without opposition.

A test straw poll was held during the opening remarks. Mark closed the poll at 7:06AM. Shared the results, to show participants how the poll works.

Chair reviewed the patent policy. Call for patents at 7:09AM (Pacfic). *No patents noted.*
Chair reviewed the IEEE Copyright policy.
Chair reviewed the IEEE Meeting participation rules.
Goal for this meeting:
- ● Resolve comments against D2.0
- ● Review presentations made in support of comments
- ● Straw polls/motions

Multiple interim teleconference meetings scheduled over the month of March/April.
Tuesday of each week. 7AM Pacific start time. Today's meeting is 3 hours long.
Meeting dates and tentative topics showed.

Chair reviewed comment resolution process:
- Terminology (open, closed, final)
- Allow individuals (other than the initial commenter) to have 2 business days to consider reopening a closed comment via the reflector.
- Progress tracked on website http://www.ieee802.org/3/cu/comments/index.html

Chair reviewed Voting procedures.

Presentation requests must be made the *Thursday before the meeting*, and presentations submitted on the Friday before the meeting to be posted during the weekend. Presentation time will be limited to 15 minutes.

6 technical presentations to be given today (2 late presentations)
NOTE: presentation titles include meeting month/day/year.
Chair asked if there was any objection to hearing the late presentations. None heard.

Presentation #1: "Editorial Update" Gary Nicholl
See http://www.ieee802.org/3/cu/public/March20/nicholl_3cu_01_031720.pdf
- Team: Gary Nicholl (Chief Editor), David Lewis (Editor for optical clauses), Mark Kimber (Advisor and reviewer for optical clauses)
- D2.0 Task Force Review opened Jan 29, closed Feb 28
- 122 comments from 21 reviewers. Two late comments received.
- Chair asked if there was any opposition to considering the late comments. No opposition was raised.
- Clauses 140 & 151 have the most comments
- Proposed responses posted Mar 12, 2020
- Goals for these interim meetings
    - Respond to all comments against Draft 2.0.
    - Generate Draft 2.1.

Presentation #2: "P802.3cu D2.0 Comment Resolution Agenda", Gary Nicholl
See http://www.ieee802.org/3/cu/public/March20/nicholl_3cu_02_031720.pdf
- Reviewed comment resolution process.
- Reviewed "big ticket items"
- 48 comments in the "bucket". {*Note:* If a participant wants a comment removed from the bucket, please email Gary so the request can be tracked.}
- 3 comments withdrawn

Presentation #3: "802.3cu D2.0 PMD Spec Proposed Changes", Chris Cole
See www.ieee802.org/3/cu/public/March20/cole_3cu_01a_031720.pdf
- Reviewed changes adopted in Jan
- Presented that in order to make the spec consistent, SECQ -10log10(Ceq) should be removed from Clause 140 and 151 RX specifications

Presentation #4: "Trying to understand TDECQ and TDECQ-10LogCeq", Gary Nichol
 See http://www.ieee802.org/3/cu/public/March20/nicholl_3cu_03a_031720.pdf

- This presentation attempts to raise the level of understanding of the topic [TDECQ and TDECQ-10Log(Ceq)], with the hope that it leads to a more informed decision by the broader Task Force

Presentation #5: "In relation to the discussion around K or TDECQ –10logCeq What are we actually trying to do?", Peter Stassar
See http://www.ieee802.org/3/cu/public/March20/stassar_3cu_01_031720.pdf
- Author states evidence required to support the use of TDECQ – 10log(Ceq)

Presentation #6: "TDECQ, slowness, badness and overshoot (revised)", Piers Dawe
See http://www.ieee802.org/3/cu/public/March20/dawe_3cu_01a_031720.pdf
- This presentation addresses four limits to protect the different parts of the receiver, and the link quality, against different threats
- This presentation addresses their different characteristics and uses, showing that all four, and probably overshoot too, are separate and needed
- A way of measuring overshoot is also presented

Presentation #7: "Impact of Tx Overshoot on Link Performance and TDECQ ", Roberto Rodes
See http://www.ieee802.org/3/cu/public/March20/rodes_3cu_01a_031720.pdf
- This presentation clarifies earlier recommendation based on the previously presented data from ad hoc http://www.ieee802.org/3/cu/public/cu_adhoc/cu_archive/rodes_3cu_adhoc_030520_v2.pdf
- Authors provide recommended values for relative and absolute transmit overshoot parameters.

Presentation #8: "On guarding against overshoot TDECQ measurement", Pavel Zivney
See http://www.ieee802.org/3/cu/public/March20/zivny_3cu_01_031720.pdf
- This presentation is in support of the absolute overshoot transmit parameter.

Online Polls:

Straw Poll #1: With regards to the inclusion of TDECQ-10log(Ceq) parameter, I support:
    a) Full removal from both Tx and Rx tables: 27
    b) Reinstate for both Tx and Rx tables: 9
        (17 Abstain)

Straw Poll #2: I support removing the relative Tx overshoot/undershoot specification:
    a) Yes: 10
    b) No: 26
        (16 Abstain)

Straw Poll #3: I support the addition of an absolute value for Tx overshoot/undershoot into the specification
    a) Yes: 31
    b) No: 5

(16 Abstain)

Straw Poll #4: I support adopting the values proposed in rodes_3cu_01a_0320 (Slide 11) for the relative and absolute Tx overshoot/undershoot
   a) Yes: 12
   b) No: 3
   c) Need more information: 23

Discussion on Straw Poll#4 identified that the proposed 4.5dBm absolute Tx overshoot limit was specifically for 400GBASE-FR4. Different PMDs would use different values. This will be work for Task Force to figure out.

Chair commented that his interpretation of the Straw Poll results indicated general support of the values identified in the Rodes presentation but given the PMD-specific nature of the absolute overshoot parameter that many probably chose need more information.

Chair requested that people work between now and next week to pull together some clear and specific editorial proposals that could be referenced as we work to close out the comments. Gary Nicholl indicated he planned to pull together one on the Ceq topic. Pavel Zivny indicated that he would work on similar for the overshoot topic. Both plan to use the reflector. Please reach out to them if you want to be involved.

Motion #3:
Motion to adjourn the meeting:
   ● Moved by Mark Kimber
   ● Seconded by Pavel Zivny
Motion passes by voice without opposition

Meeting adjourned ~10:02AM (Pacific)

Attendees (captured from Webex tool)

John Abbott	corning
Adam Healey	broadcom
ADRIAN JUAREZ	corning
adriano.messias	idea-ip
Ali Ghiasi	Ghiasi Quantum
Allan	molex

Ayla Chang	huawei
bill kirkland	semtech
Bo Zhang	inphi
BRIAN WELCH	cisco
Chris Cole	II-VI
Dave Lewis (Lumentum)	lumentum
David Chen (Guest)	ao-inc
david malicoat	Independent
David Ofelt	juniper
David Piehler	dell
Ed Ulrichs	intel
Elizabeth Kochuparambil	cisco
Fabio Pittala	huawei
Frank Chang	Source Photonics
Gary Nicholl	cisco
Greg LeCheminant	keysight
guangcan	huawei
Helen Yu	huawei
Hideki Isono	jp.fujitsu
inho kim	marvell
James Young	commscope
Jeffery Maki	juniper
John Calvin	keysight
Kent Lusted	intel
Ken Jackson	sei-device
lance.thompson	finisar
Lemon_geng	huawei

Leon Bruckman	huawei
Maniloff, Eric	ciena
Marcelo Guedes	idea-ip
Mark Kimber	semtech
Mark Nowell	cisco
Massimo Sorbara	globalfoundries
Matt Brown	gmail
Pavel Zivny	tektronix
Peter Stassar	huawei
Phil Sun	credosemi
Piers Dawe	mellanox
Pirooz Tooyserkani	cisco
Qing	ranovus
Raymond Nering	cisco
roberto.rodes	finisar
Ruoxu Wang	hisilicon
Stephen Didde	keysight
Steve Trowbridge	nokia
Thomas Palkert	Molex
Tom Issenhuth	outlook
Tony	huawei
Vince Ferretti	corning
Vipul Bhatt	II-VI
Xiang He	huawei
Xinyuan Wang	huawei
Yoshiaki Sone	nel-america
汤方毅	huawei