

## IEEE P802.3ck Ad Hoc meeting – April 24, 2019

Prepared by Kent Lusted

### Proposed Agenda:

- Approval of the Agenda
- Approve 10 April 2019 ad hoc minutes
- IEEE Patent Policy reminder:
  - <http://www.ieee802.org/3/patent.html>
- IEEE Participation Requirements reminder
- Logistics for May Interim meeting
- Status of the Task Force
- .3ck Ad Hoc –
  - “Working toward ERL limit baseline for C2M”, Rich Mellitz
  - “CR/KR Considerations for c(-3) tap”, Margaret Johnson
  - “Details of 4-lane Interleaved 100G FEC”, Shawn Nicholl & Ben Jones

Presentations posted at: <http://www.ieee802.org/3/ck/public/adhoc/index.html>

Meeting began at ~7:05 a.m. Pacific by Beth Kochuparambil.

Meeting began with the agenda presentation:

[http://www.ieee802.org/3/ck/public/adhoc/apr10\\_19/agenda\\_042419\\_3ck\\_adhoc.pdf](http://www.ieee802.org/3/ck/public/adhoc/apr10_19/agenda_042419_3ck_adhoc.pdf)

The ad hoc chair reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes. Reminded participants to mute lines when not speaking and reviewed the steps to unmute.

Showed the links to the IEEE P802.3ck Task Force ad hoc page and the email reflector.

Presented the proposed agenda. There was no opposition. The agenda was approved by the ad hoc.

Chair noted that the April 10, 2019 minutes were posted. She asked if there were corrections or modifications. No one responded. Minutes were approved by the Task Force.

Reminded participants of the IEEE patent policy. She asked if anyone was unfamiliar with the IEEE patent policy. No one responded.

Reminded participants of the IEEE Participation Requirements and showed the slide with the Participation requirements. She asked if anyone was unfamiliar with the IEEE Participation Requirements. No one responded.

## Agenda Items

### P802.3ck Update, Beth Kochuparambil

See:

- Next meeting is the week of May 20, 2019 in Salt Lake City, Utah, USA. The Task Force will meet Tuesday-Thursday.
- Request for presentations due Friday, May 10, 2019 AoE. Presentations due 5pm Pacific, Wednesday, May 15, 2019.
- Goal: adopt baselines and work towards draft 1.0
- It was noted that the outline of topics is very rough and subject to change.

### Presentation #1:

“Working toward ERL limit baseline for C2M”, Rich Mellitz

See: [http://www.ieee802.org/3/ck/public/adhoc/apr24\\_19/mellitz\\_3ck\\_adhoc\\_01a\\_042419.pdf](http://www.ieee802.org/3/ck/public/adhoc/apr24_19/mellitz_3ck_adhoc_01a_042419.pdf)

- Analysis uses COM version 2.66, which has the same functionality as v2.60 posted to the website for these calculations.
- Discussed the use of VEO vs. VEC. There was concern that the VEC calculation method was not ideal.
- On slide 5, the graph on the right is a histogram of VEO.
- There was a request to run ERL looking into the module.

There was a technical difficulty with the audio for a presenter. Chair asked if there was objection to swapping the order of Margaret Johnson presentation with Shawn Nicholl’s presentation. No one objected.

### Presentation #2:

“Details of 4-lane Interleaved 100G FEC”, Shawn Nicholl & Ben Jones

See: [http://www.ieee802.org/3/ck/public/adhoc/apr24\\_19/nicholl\\_3ck\\_adhoc\\_01b\\_042419.pdf](http://www.ieee802.org/3/ck/public/adhoc/apr24_19/nicholl_3ck_adhoc_01b_042419.pdf)

- Updated version ‘01b’ with editorial and clarifying corrections. No objection.
- Clarification on slide 13. 4:1 (green curve) is similar to 400G performance; re-use of circuitry would still keep the performance at or better than 400G.
- Latency impact of re-use of circuitry (vs the initial interleaved FEC proposal) is expected to be negligible.

### Presentation #3:

“CR/KR Considerations for c(-3) tap”, Margaret Johnson

See: [http://www.ieee802.org/3/ck/public/adhoc/apr24\\_19/johnston\\_3ck\\_adhoc\\_01\\_042419.pdf](http://www.ieee802.org/3/ck/public/adhoc/apr24_19/johnston_3ck_adhoc_01_042419.pdf)

- Discussion on COM use vs implementation
- Discussion of COM impact from inclusion of tap in COM
- Discussion of cost of implementation and link training

Chair noted that the next ad hoc is May 8 followed by presentation requests for face-to-face is due May 10.

The ad hoc meeting ended at ~8:50 a.m. Pacific.

## List of attendees (captured from Webex tool)

Name	Affiliation	Employed by
Adam Healey	Broadcom	Broadcom
Adrian Butter	Global Foundries	Global Foundries
Alex Bailes	Keysight	Keysight
Alex Haser	Molex	Molex
Ali Ghiasi	Ghiasi Quantum	Ghiasi Quantum & Huawei
Amanda Dong	Xilinx	Xilinx
Andy Zambell	Amphenol	Amphenol
Arturo Pachon	Cisco	Cisco
Bert Klaps	Intel	Intel
Beth Kochuparambil	Cisco	Cisco
Bill Kirkland	Semtech	Semtech
Bo Zhang	Inphi	Inphi
Brandon Gore	Samtec	Samtec
Brian Holden	Kandou	Kandou
Bruce Champion	TE Connectivity	TE Connectivity
Burrell Best	Samtec	Samtec
Chien-Ping Kao	Intel	Intel
David Malicoat	Senko	Malicoat Networking Solutions
David Ofelt	Juniper	Juniper
David Piehler	Dell EMC	Dell EMC
David Rennie	Synopsys	Synopsys
Dean Wallace	Marvell	Marvell

Derek Wang	Cenec Networks	Cenec Networks
Frank Lambrecht	Gigamon	Gigamon
Gary Nicholl	Cisco	Cisco
Geoff Zhang	Xilinx	Xilinx
Greg McSorley	Amphenol	Amphenol
Hormoz Djahanshahi	Microsemi	Microsemi
Howard Heck	Intel	Intel
Hsinho Wu	Intel	Intel
Ilya Lyubumirshky	Inphi	Inphi
Jane Lim	Cisco	Cisco
Jeff Slavick	Broadcom	Broadcom
Jeffery Maki	Juniper	Juniper
Jeremy Stephens	Intel	Intel
John D'Ambrosia	FutureWei (Subsidiary of Huawei)	FutureWei (Subsidiary of Huawei)
John Ewen	Globalfoundries	Globalfoundries
Kapil Shrikhande	Innovium	Innovium
Kent Lusted	Intel	Intel
Kumaran Krishnasamy	Broadcom	Broadcom
Leesa Noujeim	Google	Google
Lokesh Kabra	Synopsys	Synopsys
Marco Mazzini	Cisco	Cisco
Margaret	Cadence	Cadence
Mark Gustlin	Cisco	Cisco

Masashi Shimanouchi	Intel	Intel
Matt Brown	Macom	Macom
Matt Schumacher	TE	TE
Mau-Lin Wu	Mediatek	Mediatek
Mike Klempa	UNH-IOL	UNH-IOL
Ming ran	Huawei	Huawei
Nathan Tracy	TE Connectivity	TE Connectivity
Pete Anslow	Ciena	Ciena
Phil Sun	Credo	Credo
Piers Dawe	Mellanox	Mellanox
Pirooz Toyserkani	Cisco	Cisco
Rich Mellitz	Samtec	Samtec
Rick Rabinovich	Keysight	Keysight
Rita Horner	Synopsys	Synopsys
Rob Stone	Broadcom	Broadcom
Sam Kocsis	Amphenol	Amphenol
Scott Sommers	Molex	Molex
Shawn Nicholl	Xilinx	Xilinx
Shimon Muller	Axalume	Axalume
Stephen Didde	Keysight	Keysight
Steve Baumgartner	Global Foundries	Global Foundries
Steve Sekel	Keysight	Keysight
Takeshi Nishimura	Yamaichi Electronics, USA	Yamaichi Electronics, USA

Tao Hu	Marvell	Marvell
Ted Sprague	Infinera	Infinera
Tom Palkert	Molex/Macom	Molex/Macom
Tony Zortea	Mellanox	Mellanox
Upen Kareti	Cisco	Cisco
Vittal Balasubramanian	Innovium	Innovium
Xiang He	Huawei	Huawei
Xinyuan Wang	Huawei	Huawei
Yan Zhuang	Huawei	Huawei
Yasuo Hidaka	Credo	Credo
Yuchun(Louis) Lu	Huawei	Huawei