Agenda for IEEE P802.3ck
100 Gb/s, 200 Gb/s, and 400 Gb/s
Electrical Interfaces Task Force
ad hoc meeting,
October 16, 2019

Kent Lusted (Intel) – Vice Chair

## Meeting

### Attendance

- Attendee names and affiliations for these ad hoc meetings will be taken from the WebEx participants list.
- Please ensure that your full name and employer/affiliation are indicated correctly.
- If the WebEx participants list does not correctly indicate your name and employer/affiliation, please send an e-mail to Kent Lusted (<u>kent.C.lusted at intel dot com</u>).

### WebEx

- Please mute your lines if you are not speaking
  - \*6 to mute/unmute or click on mute button in the WebEx window
- Noisy, unmuted lines will be muted by the WebEx organizer
  - \*6 to unmute if this happens to you
- Participants wishing to contact the presenter can contact the Vice Chair for their contact info

### .3ck Task Force ad hoc communications

- The TF web page is here:
  - <a href="http://www.ieee802.org/3/ck/index.html">http://www.ieee802.org/3/ck/index.html</a>
- All e-mail communications are via the SG/TF reflector
  - archive and subscription links are here:
     http://www.ieee802.org/3/100GEL/reflector.html

## Participation in IEEE 802 Meetings

Participation in any IEEE 802 meeting (Sponsor, Sponsor subgroup, Working Group, Working Group subgroup, etc.) is on an individual basis

- Participants in the IEEE standards development individual process shall act based on their qualifications and experience. (<a href="https://standards.ieee.org/develop/policies/bylaws/sb\_bylaws.pdf">https://standards.ieee.org/develop/policies/bylaws/sb\_bylaws.pdf</a> section 5.2.1)
- IEEE 802 Working Group membership is by individual; "Working Group members shall participate in the consensus process in a manner consistent with their professional expert opinion as individuals, and not as organizational representatives". (subclause 4.2.1 "Establishment", of the IEEE 802 LMSC Working Group Policies and Procedures)
- Participants have an obligation to act and vote as an individual and not under the direction of any other individual or group. A Participant's obligation to act and vote as an individual applies in all cases, regardless of any external commitments, agreements, contracts, or orders.
- Participants shall not direct the actions or votes of any other member of an IEEE 802 Working
  Group or retaliate against any other member for their actions or votes within IEEE 802 Working
  Group meetings, see <a href="https://standards.ieee.org/develop/policies/bylaws/sb\_bylaws.pdf">https://standards.ieee.org/develop/policies/bylaws/sb\_bylaws.pdf</a> section
  5.2.1.3 and the IEEE 802 LMSC Working Group Policies and Procedures, subclause 3.4.1 "Chair", list item x.

By participating in IEEE 802 meetings, you accept these requirements. If you do not agree to these policies then you shall not participate.

(Latest revision of IEEE 802 LMSC Working Group Policies and Procedures: http://www.ieee802.org/devdocs.shtml)

## Proposed agenda

- Approval of the Agenda
- Approve October 14 2019 Ad Hoc Minutes
- IEEE Patent Policy reminder:
  - http://www.ieee802.org/3/patent.html
- IEEE Participation Requirements reminder
- Task Force Status
- .3ck Technical Presentations\*
  - "Performance Improvements due to FEC Interleaving", Mark Gustlin (20 mins)
  - "C2M Small Group update", Kent Lusted (10 mins)
  - "C2M Link Performance with Short and Long Channels", Ali Ghiasi (15 mins)
  - "C2M TP1a VEC and VEO vs. Whole Link COM Correlation", Mau-Lin Wu (25 mins)
  - "Host to Module Short Channel Issue Channels Comparison", Mau-Lin Wu (25 mins)

http://www.ieee802.org/3/ck/public/adhoc/index.html

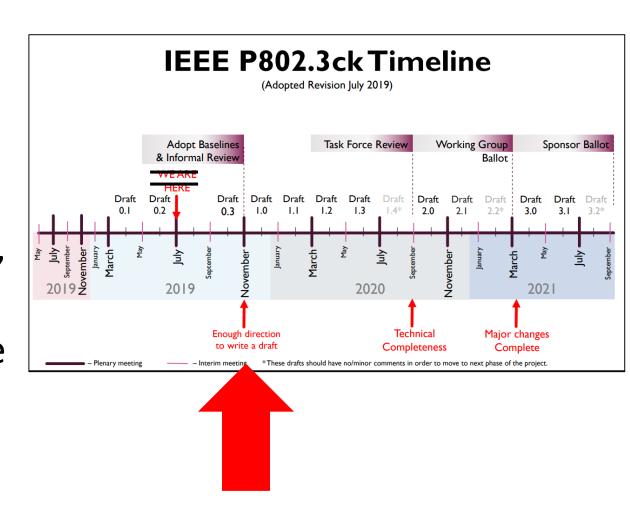
<sup>\*</sup>Slides are posted in Ad Hoc area.

# **Project Status**

- The most pressing action items for our Task Force are to solidify direction:
  - 100G FEC
  - C2M
  - CR
- Finding a path forward is very challenging
- Please keep an open mind and initially consider all possibilities without criticism
  - A.k.a. brainstorm

## Task Force Timeline Reminder

- Updated in July 2019
- Based on contributions, we are at risk of missing the November deadline!



# Logistics for November

- 802 Plenary meets the week of November 11<sup>th</sup> 2019 in Waikaloa Village, HI, USA
  - 3ck is meeting Monday-Wednesday (with obvious breaks)
  - Goal: Adopt additional baselines, enough to make draft 1.0
- Request for presentations are due Friday, November 1,2019
   AOE.
- Presentations are due by 5:00pm PDT Tuesday, November 5, 2019.
  - Late presentations can/should still be submitted, but will be subject to available time on the agenda and Task Force approval.
- Prioritizing contributions focused on solidifying direction or baseline adoption for the most pressing action items

<sup>•</sup> If you are new to the IEEE standards and need more detail for submitting requests/presentations, see the webpage: http://www.ieee802.org/3/ck/public/presentproc.html

# Overlaps for November

- We do our best to avoid overlaps, but cannot fully avoid due to many projects of interest.
- The Chairs requested the following:

	Monday	Tuesday	Wed	Thurs
Morning	WG	<mark>3ck, <mark>3cu</mark></mark>	3cn/3ct,	3cn/3ct
	meeting		<mark>3ck</mark>	<mark>3cm</mark>
	(10-12)			
Afternoon	<mark>3ck</mark> , <mark>3cu</mark>	<mark>3ck</mark> , <mark>3cu</mark>	3cn/3ct,	WG
			<mark>3cm</mark>	meeting
Evening	Tutorials	CFI	Social	

# **Baselines Adopted**

http://www.ieee802.org/3/ck/public/baselines/index.html

#### PCS, FEC, and PMA

Mark Gustlin presented FEC/PCS/PMA (100G C2M AUI, 200G/400G all), Adopted Mar 2019

#### Auto-Negotiation

- Jeff Slavick presented AN, Adopted Sept 2018
- Jeff Slavick presented Link Training (with max\_wait\_timer as TBD), Adopted May 2019

### AUIs: C2M, C2C

- Phil Sun presented C2M framework (ref. RX agnostic), Adopted Mar 2019
- Mike Li and Ali Ghiasi presented C2C baseline (Adopted September 2019

### PMDs: Backplane & Cu Cable

- <u>Tom Palkert presented MDIs</u>, Adopted Sept 2018
- Howard Heck presented Backplane framework (DFE-base ref. RX), Adopted Mar 2019
- <u>Removed microQSFP</u> Adopted July 2019
- MTF (slides 24, 26-27 only) Adopted July 2019
- <u>Clint Walker presented Backplane Baseline</u> Adopted July 2019 (with Bmaxg = 0.05)

#### Nomenclature

• Kent Lusted presented 2 nomenclature options, Straw poll used to determine Option B Jan 2019

### Still Need:

- 100G KR/CR FEC/PCS/PMA
- C2M Ref Rx/ERL?/Precoding?
- Cu Cable Budget/HCB/MCB

Draft 0.3 is available in the Task Force private area. Contact me if access information