

P802.3by 25 Gb/s Ethernet Task Force and 50G/100G/200G Study Groups Joint Ad Hoc meeting – February 3, 2016

Prepared by Kent Lusted

Proposed Agenda:

- Approval of the Agenda
- IEEE patent policy reminder:
 - 50G & NGOATH:
<https://development.standards.ieee.org/myproject/Public/mytools/mob/preparslides.pdf>
- Approval of draft minutes for January 13, 2016
- 50GE & NGOATH Study Groups Ad Hoc – Kent Lusted
 - Study Group Update, Mark Nowell
 - “50G & NGOATH SG Update”, Kent Lusted
 - “500m PSM4”, Brian Welch
 - Copper reach discussion, Mark Nowell (no presentation)
 - “Architectural Options and Technical Feasibility of 100GbE”, Mark Gustlin

Presentations posted at: <http://www.ieee802.org/3/by/public/adhoc/architecture/index.html> or <http://www.ieee802.org/3/50G/public/adhoc/archive/index.html>

Meeting began at 8:02 a.m. Pacific by Matt Brown.

Meeting began with the agenda presentation:

http://www.ieee802.org/3/50G/public/adhoc/archive/agenda_020316_50GE_NGOATH_adhoc.pdf

Matt Brown reviewed the Attendance information related to the ad hoc. He reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes. He reminded participants to mute their lines when not speaking and reviewed the steps to unmute.

Matt Brown showed the links to the 50G and NGOATH ad hoc page and the email reflector.

Matt presented the proposed agenda and asked if there was objection as written. Tom Palkert noted that he will be presenting for Brian Welch. The agenda was approved by the ad hoc.

Matt reminded participants of the IEEE patent policy.

Ad hoc minutes

The January 13 meeting minutes for joint ad hoc were posted on the website. Matt Brown asked if there were any objections to approving the posted minutes. No one responded. Minutes approved.

Matt Brown passed the ad hoc call chair to Kent Lusted.

50G/100G/200G Study Groups Agenda Items

Note: The links to the two Study Group ad hoc websites are:

<http://www.ieee802.org/3/50G/index.html> 50Gb/s Ethernet Study Group

<http://www.ieee802.org/3/NGOATH/index.html> Next Generation 100 Gb/s & 200Gb/s Ethernet Study Group

Study Group Update, Mark Nowell:

- Reviewed the progress from the January interim.
- Noted that the Study Group rechararters were approved by the IEEE EC on 2 February.
- Working to schedule the Plenary week meetings to minimize overlap with the other IEEE projects. The 50G and NGOATH Study Groups will meet on Wednesday and Thursday, and Tuesday afternoon if needed. Details will be announced as the plan is finalized.

50G & NGOATH SG Presentation #1:

“50G & NGOATH Ethernet Study Group Update”, Kent Lusted

See: http://www.ieee802.org/3/50G/public/adhoc/archive/lusted_020316_50GE_NGOATH_adhoc-v2.pdf

- Mike Dudek raised concern with the 200G rate BER target of 1E-13 for the copper PHY types
- John D’Ambrosia asked Kent to update the presentation to include the proposed P802.3bs objective changes.
- Discussed interest in a AUI C2C objective for 50G
- Discussed 100G compatibility objective support for CSDs. It was noted that there will be 100GBASE-KR4/CR4 PHY types deployed before this standard is complete.
- Discussed Ethernet market growth influence on Broad Market Potential.
- There was a request to provide references to the supporting evidence for the each line item.
- There was a request to add an item under “Other” for 100G compatibility

50G & NGOATH SG Presentation #2:

“200G-PSM4: A prospective solution for 200GE interconnects over 500m of SMF”, Tom Palkert

See http://www.ieee802.org/3/50G/public/adhoc/archive/welch_020316_50GE_NGOATH_adhoc.pdf

- Discussed impact of the PCS on the optical PMD performance
- Discussed the use of 200 Gb/s PSM4 as a 50 Gbps/lane breakout from a 4-lane connector to support the Broad Market Potential.
- Discussed the need for more supporting material for the proposed objective and where the work will be handled.

Copper Reach Discussion:

- Chair noted that the currently adopted copper objectives do not contain reaches and will not pass Working Group scrutiny.
- Mike Dudek provided a brief summary of the insertion loss discussion at the OIF meeting last week.
- There was much discussion on a channel insertion loss target.
- Mark Nowell noted that the reach is an important discussion to support the copper objectives and needs contributions before March.

50G & NGOATH SG Presentation #3:

“Architectural Options and Technical Feasibility of 100GbE”, Mark Gustlin

See http://www.ieee802.org/3/50G/public/adhoc/archive/gustlin_020316_50GE_NGOATH_adhoc.pdf

- Noted that the 100G architecture does not change for this project.
- Discussed a backward compatibility path to existing 100 Gb/s Ethernet standards.
- It was noted that a more thorough analysis of the options would be necessary in Task Force.
- Discussed the need for backward compatibility with 4x25G and 2x50G optics module and I/O.

Mark Nowell encouraged participants to make contributions to support the objectives.

The ad hoc meeting ended at 9:55 a.m. Pacific.

List of attendees (captured from Webex tool)

Name	company
Adam Healey	avagotech
Adee Ran	intel
ahmet	analog
Ali	n/a
Andre Szczepanek	inphi
Ben Smith	inphi
Bipin D. Dama	cisco
chris	n/a
Chris Roth (Molex)	molex
cjchen	broadcom
Dale Murray	lightcounting
Daniel Dillow	fci
Daniel Koehler	morethanip
David Law	hpe
David Malicoat	hpe
Derek Cassidy	bt
Dino Pozzebon	microsemi
ed	sourcephotronics
Eric Baden (Broadcom)	broadcom
Fernando De Bernardinis	marvell
Flavio Marques	furukawa.co
Gary Nicholl	cisco
Geoffrey	hpe
george	Commscope & Aquantia.
Greg LeCheminant	keysight
Hai-Feng	intel
Hanan Leizerovich	multi-phy
Jack Dawson	netronome
Jane Lim	cisco
Jeff Slavick	broadcom
Jeffery Maki	juniper
Jing Fang	marvell
John DAmbrosia	FutureWei
John Dillard	microsemi
John Ewen	globalfoundries
John Nelson	arista

Juan-Carlos Calderon	inphi
Kenneth Jackson	sei-device
Kent Lusted	intel
Kumaran Krishnasamy	broadcom
Mark Gravel	hp
Mark Gustlin	xilinx
Mark Jones	xtera
Mark Kimber (Semtech)	semtech
Mark Nowell	cisco
martin white	caviumnetworks
Matt Brown (APM)	apm
Megha Shanbhag	te
Mike Dudek	qlogic
Mike Li	altera
Nathan Tracy	te
Dave Ofelt	juniper
Paul Kolesar	commscope
Paul Mooney	spirent
Peter Anslow	ciena
Peter Stassar	huawei
Phil Sun	credosemi
Piers	mellanox
Qian Zhang	cisco
Qing Xu	belden
Raj Hegde	broadcom
Randy k Rannow	n/a
Ray	cisco
Rich Mellitz (Intel)	intel
Rick Rabinovich	ixiacom
Rita Horner	synopsys
Rob Stone	broadcom
Ron Muir (JAE)	jae
salvatore rotolo	st
scott sommers	molex
Stefano Valle	st
Ted Sprague	infinera
Tom Issenhuth	microsoft
Tom McDermott	us.fujitsu
Tom Palkert	visi

Tongtong Wang	huawei
upen	cisco
Upendranadh Kareti	cisco
Vasu	broadcom
Venu B (Marvell)	marvell
Vipul Bhatt	inphi
Vittal	dell
Wheling Cheng	ericsson
will bliss	broadcom
Zhenyu Liu	credosemi
Zvi Rechtman	mellanox