

P802.3by 25 Gb/s Ethernet Task Force and 50G/100G/200G Study Groups Joint Ad Hoc meeting – February 10, 2016

Prepared by Kent Lusted

Proposed Agenda:

- Approval of the Agenda
- IEEE patent policy reminder:
 - 25G TF: <http://www.ieee802.org/3/patent.html>
 - 50G & NGOATH: <https://development.standards.ieee.org/myproject/Public/mytools/mob/preparslides.pdf>
- Approval of draft minutes for February 3, 2016
- P802.3by 25G Ad Hoc – Matt Brown
 - Task for force update
 - “Closing the Pmax to Vf Ratio budget hole”, Mike Dudek
- 50GE & NGOATH Study Groups Ad Hoc – Kent Lusted
 - Study Group Update, Kent Lusted
 - “low latency schemes for 50GE”, Phil Sun
 - “Options of PCS Lane Rate in 50/NG 100GbE”, Tongtong Wang

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 Kent Lusted.

Meeting began with the agenda presentation:

http://www.ieee802.org/3/50G/public/adhoc/archive/agenda_021016_25GE_50GE_NGOATH_adhoc-v2.pdf

Kent Lusted 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.

Kent Lusted showed the links to the 25G ad hoc page and the email reflector.

Kent Lusted showed the links to the 50G and NGOATH ad hoc page and the email reflector.

Kent presented the proposed agenda and asked if there was objection as written.

New item was added to 25G list “Task Force Update”

The modified agenda was approved by the ad hoc.

Kent reminded participants of the IEEE patent policy.

Ad hoc minutes

The February 3 meeting minutes for joint ad hoc were posted on the website. Kent asked if there were any objections to approving the posted minutes. No one responded. Minutes approved.

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

P802.3by 25G TF Agenda Items

Note: The link to the P802.3by 25G Task Force architecture ad hoc website is:

<http://www.ieee802.org/3/by/public/adhoc/architecture/index.html>

Matt Brown reviewed the agenda for the TF portion.

Task Force Update – Matt Brown:

- Draft 3.1 recirculation ballot expected to start 10 February
- Please submit comments early, if possible

P802.3by Presentation #1:

“Closing the Pmax to Vf Ratio budget hole”, Mike Dudek

See: http://www.ieee802.org/3/by/public/adhoc/architecture/dudek_021016_25GE_adhoc.pdf

- Issue also exists w ‘bj backplane spec.
- Reviewed COM plots with some different Tx degradation options.
- Discussed impacts of changing Pmax/Vf ratio.
- Reviewed the plots of the channels used in analysis.
- Matt Brown noted that Adeo Ran plans a contribution next week on this topic.

Matt Brown passed 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, Kent Lusted:

- 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.

Copper Reach Update – Kent Lusted

- Joel Goergen was not available, Kent Lusted gave a verbal update of an offline consensus building meeting
- For the copper cable, there seems to be some consensus on 3m and 2m. Both groups tasked to bring contributions
- For backplane, ~30dB is being discussed
- Contact Joel Goergen for the offline consensus building meeting invitation

50G & NGOATH SG Presentation #1:

“low latency schemes for 50GE”, Phil Sun

See: http://www.ieee802.org/3/50G/public/adhoc/archive/sun_021016_50GE_NGOATH_adhoc.pdf

- Signaling for proposed no-FEC C2C and C2M is PAM4.
- It was noted that 10dB without FEC has not been demonstrated in OIF.
- Discussed burst error effect and BER on the proposals in slide 6.
- Discussed effect of precoding on FEC symbol errors
- There was concern that the “a”=0.75 in P802.3bs does not match the table on slide 6.
- Phil expressed interest in a latency related objective for the project. Several participants wanted to see more information on technical feasibility and latency targets.

50G & NGOATH SG Presentation #2:

“Options of PCS Lane Rate in 50/NG 100GbE”, Tongtong Wang

See: http://www.ieee802.org/3/50G/public/adhoc/archive/wang_021016_50GE_NGOATH_adhoc-v2.pdf

- There was concern w/ no 25G support with the proposal on slide 5.
- Discussed PCS lane muxing choices, if 25G lanes are supported.
- Discussed if 2x25G AUI to 50G MDI considered part of the project. Request for a survey on this topic. Also 100G and 200G.

Next ad hoc meeting is 17 February 2016.

The ad hoc meeting ended at 10:00 a.m. Pacific.

List of attendees (captured from Webex tool)

Name	company
Adam Healey	broadcom
Adee Ran	intel
Adrian Butter	globalfoundries
Ali	n/a
Amrik Bains (Cisco)	cisco
Andre Szczepanek	inphi
Andy Zambell	n/a
anil	brocade
Arvind Srinivasan	oracle
Brad	microsoft
Brian Welch	luxtera
Chris Roth (Molex)	molex
dan dillow (FCI)	fci
Daniel Koehler	morethanip
Dave Lewis	lumentum
David Law	hpe
David Malicoat	hpe
deepyue.zhang	n/a
Derek Cassidy	bt
Eric Baden (Broadcom)	broadcom
Fernando De Bernardinis (Marvell)	marvell
Fred	broadcom
Gary Nicholl	cisco
Geoffrey	hpe
Ghani Abbas	ericsson
Greg LeCheminant	keysight
Greg McSorley	amphenol- highspeed
Hyun Choi	nvidia
Jacky Chang	hpe
Jane Lim	cisco
Jason Ellison	Siemon
Jeff Slavick	broadcom
Jing Fang	marvell
Joel	cisco
John Castina	netronome
John D'Ambrosia	FutureWei

John Dillard	microsemi
John Ewen	globalfoundries
John Nelson	arista
jonathan	finisar
Juan-Carlos Calderon	inphi
Kapil Shrikhande	n/a
Kenneth Jackson	sei-device
kent lusted (intel)	intel
Kumaran Krishnasamy	broadcom
Marco	cisco
Mark Gravel	hp
Mark Gustlin	xilinx
martin white	caviumnetworks
Matt Brown (APM)	apm
Megha Shanbhag	te
Mike Dudek	qlogic
Oded Wertheim	mellanox
Dave Oflet	juniper
Patrick	loromamerica
Paul Kolesar	commscope
Paul Mitchell	oracle
Peter Anslow	ciena
Peter Stassar	huawei
Phil Sun	credosemi
Phong Pham	usconec
Piers	mellanox
Qing Xu	belden
Raj Hegde	broadcom
ramin farjad	aquantia
Ray	cisco
Rich Mellitz (Intel)	intel
Rick Pimpinella	panduit
Rick Rabinovich	ixiacom
Rita Horner	synopsys
Rob Stone	broadcom
salvatore rotolo	st
Scott Kipp	brocade
scott sommers	molex
takeshi.Nish	yeu

Tao	qlogic
Tao Hu	qlogic
Ted Sprague	infinera
Tom Issenhuth	microsoft
Tom McDermott	us.fujitsu
Tom Palkert	visi
Tongtong Wang	huawei
Upen Kareti	cisco
Vasu	broadcom
Venu B (Marvell)	marvell
Vittal Balasubramanian	dell
Wheling Cheng	ericsson
will bliss	broadcom
Xinyuan Wang	huawei
yizhaoping	h3c
Yong Kim (Broadcom)	broadcom
Yuri Vandyshev	cisco
Zhenyu Liu	credosemi
Zvi Rechtman	mellanox