

# P802.3by 25 Gb/s Ethernet Task Force and 50G/100G/200G Study Groups Joint Ad Hoc meeting – January 6, 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 December 16
- P802.3by 25G
  - Task Force Update, Mark Nowell
  - Draft 3.0 Editorial Report, Matt Brown
- 50GE & NGOATH Study Groups Ad Hoc
  - “Study Group Objectives Discussion”, Mark Nowell
  - “Proposed changes 802.3bs project documentation” and “IEEE P802.3bs Project Schedule Overview”, John D’Ambrosia
  - “Compatibility Considerations for 50 and 100G”, Rob Stone
- Next joint ad hoc meeting is 13 January 2016

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.

Meeting began with the agenda presentation:

[http://www.ieee802.org/3/50G/public/adhoc/archive/agenda\\_010616\\_25GE\\_50GE\\_NGOATH\\_adhoc-v2.pdf](http://www.ieee802.org/3/50G/public/adhoc/archive/agenda_010616_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 P802.3by 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. There was a request to move the “Compatibility Considerations for 50 and 100G” presentation to the start of the 50G/NGOATH portion. Kent and Mark considered the request and denied the request to reorder based on the need to cover the Objectives topics. No additional feedback was received. The agenda was approved by the ad hoc.

Kent reminded participants of the IEEE patent policy.

**Ad hoc minutes**

The December 16 meeting minutes for joint ad hoc were posted on the website. Kent Lusted 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

### P802.3by Task Force Update, Mark Nowell

- Initial Sponsor Ballot closed on Dec 24, 2015. The ballot closed successfully and met all of the requirements.
- Received 104 comments. Published on the website. See: <http://www.ieee802.org/3/by/public/comments/index.html>
- The January interim Task Force meeting plan is to resolve comments and prepare the next draft.
- Presentation requests are due Friday, 8 January. Presentations are due on Tuesday, 12 January.
- The Task Force meets in Atlanta on Monday and Tuesday during the week of January 18-22. There was a question regarding the overlap with P802.3bs. Mark confirmed that the Task Force meets at the start of the week while the 50G/NGOATH Study Groups meet at the end of the week.

### P802.3by Presentation #1:

“Draft 3.0 Editorial Report”, Matt Brown

See: [http://www.ieee802.org/3/by/public/adhoc/architecture/brown\\_010616\\_25GE\\_adhoc.pdf](http://www.ieee802.org/3/by/public/adhoc/architecture/brown_010616_25GE_adhoc.pdf)

- Reviewed the comment summary and noted that Clause 110 had the most comments.
- Reviewed the hot topics list from the Draft 3.0 ballot. Matt noted that there is a new comment #52 regarding latency variation; Duane Remein (comment author) provided a verbal clarification on his comment. It was pointed out that the TSN (time sensitive networking) spec includes the information that comment #52 was requesting. Duane indicated that this would be a sufficient response.
- Adeo Ran briefly reviewed the comments associated with Clause 110/111.
- Addo Ran noted that participants that want to be involved in the offline RITT transition time filter consensus building meeting should contact him.
- Matt Brown noted that most of the interim meeting comment resolution will be spent resolving Clause 110 comments. Participants interested in Clause 110 comments should plan to be in the Task Force room on Monday and Tuesday.

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:

- Study Groups will meet on Wednesday-Friday of the January interim week.
- Anticipate a full agenda.
- Presentation requests are due Friday, 8 January. Presentations are due on Tuesday, 12 January.
- Encourage contributions on SG objectives to support the PAR & CSD.

### 50G & NGOATH SG Presentation #1:

“Study Group Objectives Discussion”, Mark Nowell

See: [http://www.ieee802.org/3/50G/public/adhoc/archive/nowell\\_010616\\_50GE\\_NGOATH\\_adhoc.pdf](http://www.ieee802.org/3/50G/public/adhoc/archive/nowell_010616_50GE_NGOATH_adhoc.pdf)

- Reviewed the summary of the on-line straw poll. The full results are posted on the website. See [http://www.ieee802.org/3/50G/public/adhoc/archive/survey\\_010616\\_50GE\\_NGOATH\\_adhoc.xls](http://www.ieee802.org/3/50G/public/adhoc/archive/survey_010616_50GE_NGOATH_adhoc.xls) Mark noted a caveat in that the poll was open to the general public and may not represent the consensus of the Study Group participants; urged participants to use the data cautiously.
- Reviewed the question format and the rubric used to summarize the data.
- Reviewed the 50Gb/s Ethernet results, question responses, and some highlighted comments.
  - Discussed the 50Gb/s backplane comments and insertion loss targets.
- Reviewed the 200Gb/s Ethernet results, question responses, and some highlighted comments.
  - Discussed the difference in the twinax and backplane responses between 50G and 200G. Several questions around the breakout case.
  - Discussed electrical objectives and the need to specify them
- Reviewed 100Gb/s Ethernet results, question responses, and some highlighted comments.
  - No strong consensus for any 100Gb/s objective.
  - Mark noted that he does not see 100G objectives as part of these Task Forces unless there are more contributions to support it.
- Reviewed the potential objective allocation to P802.3bs on slides 16/17
  - Mark noted that the results could show opposition to changing P802.3bs which was a surprise given the earlier adhoc presentations
- Reviewed Study Group work considerations from a schedule perspective.
  - David Law noted that PAR modification request for P802.3bs would need a 30 day pre-circulation for the IEEE 802 EC.
  - Discussed briefly the procedural requirements to modify a PAR and change objectives.

### 50G & NGOATH SG Presentation #2:

“Proposed changes 802.3bs project documentation” and “IEEE P802.3bs Project Schedule Overview”, John D’Ambrosia

See [http://www.ieee802.org/3/50G/public/adhoc/archive/dambrosia\\_02\\_010616\\_50GE\\_NGOATH\\_adhoc.pdf](http://www.ieee802.org/3/50G/public/adhoc/archive/dambrosia_02_010616_50GE_NGOATH_adhoc.pdf)

- Showed “proposed changes project documentation”  
([http://www.ieee802.org/3/50G/public/adhoc/archive/dambrosia\\_01\\_010616\\_50GE\\_NGOATH\\_adh](http://www.ieee802.org/3/50G/public/adhoc/archive/dambrosia_01_010616_50GE_NGOATH_adh))

[oc.pdf](#) ) as a reference to his other presentation and reviewed proposed changes to the project objectives for the Study Group participants

- Reviewed the 3 schedule options. John noted that Option 2 would add a new June interim to facilitate the move to Working Group ballot in July. John noted that strong consensus on the change will be necessary to progress forward.
- Pete Anslow noted that Option 2 also places a large workload on the editorial team.

### **50G & NGOATH SG Presentation #3:**

“Compatibility Considerations for 50 and 100G”, Rob Stone

See [http://www.ieee802.org/3/50G/public/adhoc/archive/stone\\_010616\\_50GE\\_NGOATH\\_adhoc.pdf](http://www.ieee802.org/3/50G/public/adhoc/archive/stone_010616_50GE_NGOATH_adhoc.pdf)

- Reviewed the market need. Rob thanked Dell’Oro Group for the permission to use the forecast.
- Discussed the market usage of 50G as 2x25G in hyperscale data centers vs. enterprise data centers.
- Discussed the potential to have a reverse gearbox on the 50G host.

Mark Nowell reminded participants that presentation requests are due Friday, 8 January. Presentations are due on Tuesday, 12 January.

Kent Lusted noted that the next joint ad hoc meeting will be on 13 January 2016.

The ad hoc meeting ended at 10:01 a.m. Pacific.

List of attendees (captured from Webex tool)

<b>Name</b>	<b>company</b>
Adam Healey	avagotech
Adee Ran	intel
Adrian Butter	globalfoundries
Ali	n/a
Amrik Bains	cisco
Andre Szczepanek	inphi
Andy Moorwood	ericsson
anil	brocade
Arthur	cadence
Arvind Srinivasan	oracle
Bharat T	semtech
Bill Wilkie	xilinx
Brad	microsoft
Brett	panduit
Brian	luxtera
Brian Teipen	advaoptical
chris	MC Communications
Chris Roth (Molex)	molex
Dale Murray	lightcounting
Dan Cunningham	arista
dan dillow (FCI)	fci
Daniel Koehler	morethanip
Dave Lewis	lumentum
David Law	HPE
David Malicoat	hpe
David Ofelt	juniper
Derek Cassidy	bt
Duane Remein	huawei
Ed	sourcephotonics
Ed Frlan	semtech
Eric Baden (Broadcom)	broadcom
Flavio Marques	furukawa.co
Frederick S. Tang	broadcom
Gary Nicholl	cisco
Geoffrey Chacon	hpe
Greg LeCheminant	keysight

Greg McSorley	amphenol-highspeed
hanan.leizerovich	multi-phy
Henry Chen	broadcom
Jeff	credosemi
Jeffery Maki	juniper
Jing Fang	marvell
John D Ambrosia	Futurewei
John Dillard	microsemi
John Ewen	globalfoundries
jonathan king	finisar
Justin Abbott	lumentum
Karen Liu	kaia
Keisuke Kojima	merl
Keng Hua CHUANG	hpe
Kenneth Jackson	sei-device
kent lusted (intel)	intel
Kohichi	oclaro
Marc Dupuis	webindustries
Mark Gravel	hp
Mark Gustlin	xilinx
Mark Jones	xtera
Mark Kimber (Semtech)	semtech
Mark Nowell	cisco
martin white	caviumnetworks
mbrown	apm
Megha Shanbhag	te
Mike Dudek	qlogic
Nathan Tracy	te
ofelt@juniper.net	juniper
Patrick	loromamerica
Peter Anslow	ciena
Peter Stassar	huawei
Phil Sun	marvell
Phong Pham	usconec
Piers	mellanox
Qian Zhang	cisco
Qing Xu	belden
Raj Hegde	broadcom

Randy k Rannow (APIC)	APIC
Ray	cisco
Rich Mellitz (Intel)	intel
Rick Pimpinella	panduit
Rick Rabinovich	ixiacom
Rita Horner	synopsys
Rob Stone	broadcom
Ron Muir	jae
sam sambasivan	labs.att
Scott Irwin	mosys
Scott Kipp	brocade
Scott Sommers	molex
Silas Li	precise-itc
Stephen	pmcs
steve sekel (keysight)	keysight
Steve Trowbridge	alcatel-lucent
Ted Sprague	infinera
Tim	cisco
Tom Isenhuth	microsoft
Tom McDermott	us.fujitsu
Tom Palkert	visi
Upendranadh Kareti	cisco
Vasu	broadcom
Vipul Bhatt	inphi
Vittal Balasubramanian	dell
Yasuo Hidaka	us.fujitsu
Z. Wang	broadcom
Zvi Rechtman	mellanox
Mike Andrewartha	Microsoft