Minutes 25 Gb/s Ethernet ad-hoc meeting – December 3, 2014

Prepared by Kent Lusted

Proposed Agenda:

- Approval of the Agenda
- IEEE patent policy reminder (see http://www.ieee802.org/3/patent.html)
- Approval of draft minutes for November 19
- 25GE Study Group Update – Mark Nowell
- 25GE Optical Ad Hoc Update – Jonathan King
- Baseline Proposal for 802.3by Auto-Negotiation – Arthur Marris
- Cable Assembly Specification – Chris Diminico
- 25GE host/cable options – Mark Nowell
- Discussion

Presentations posted at: http://www.ieee802.org/3/25GSG/public/adhoc/architecture/index.html

Meeting began at 8:03 a.m. Pacific.

Meeting began with the agenda presentation:
http://www.ieee802.org/3/25GSG/public/adhoc/architecture/agenda_120314_25GE_adhoc.pdf

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

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.

Matt presented the proposed agenda. No one objected.

Matt reminded participants of the IEEE patent policy. (see http://www.ieee802.org/3/patent.html) No one responded.

The November 19 meeting minutes were posted after the meeting. No comments were received. Matt Brown asked if there were objections to approving the minutes as posted. No one responded. The November 19 meeting minutes were approved by the ad hoc.

Study Group Update -- Mark Nowell
- Mark sent out the meeting notice and call for presentations over the email reflector. Deadline for requesting a presentation slot is January 2, 2015. Contributions are due January 6, 2015.
- Meeting in January will be on Monday, Tuesday and Wednesday morning. Please plan travel accordingly.

25GE Optical Ad Hoc Update – Matt Brown on behalf of Jonathan King
- The agenda for the optical ad hoc went to the email reflector.
- A baseline proposal straw man was also sent to the reflector.

Presentation #1:
"Baseline Proposal for 802.3by Auto-Negotiation" – Arthur Marris
See http://www.ieee802.org/3/25GSG/public/adhoc/architecture/marris_120314_25GE_adhoc.pdf
- Arthur reviewed the proposed baseline assumptions for the auto-negotiation.
- Discussed the desire to add 10GBASE-CR to the AN field. Mark Nowell, as Study Group Chair, suggested this be done via the maintenance task force.
- Reviewed the idea of using a next page for FEC capabilities. An unformatted message code could hold the relevant FEC information. Discussed the relevance of the U6/U7/U8 as AN next page bits on slide 19 when the RS-FEC operation is already defined for 100G operation in 802.3bj-2014.
- Discussed the single-pass vs. multi-pass approach to resolve link information.
- There was much discussion on the "pervasive management" function and how it should interact with the AN.
- Anyone wishing to contribute to the AN baseline proposal should contact Arthur Marris.

<div style="border:1px solid;">Matt Brown 12/4/2014 2:14 PM
Comment [1]: what does this mean?</div>

Presentation #2:
"Considerations for 25 Gb/s Cable Assembly Specifications" – Chris DiMinico
See http://www.ieee802.org/3/25GSG/public/adhoc/architecture/diminico_120314_25GE_adhoc.pdf
- Reviewed the cable assembly options discussed in the study group: QSFP, SFP+ and the QSFP-to-SFP breakout cable.
- Chris proposes to keep the 802.3bj-2014 cable parameters for this project, except that the cable assembly insertion loss and COM are the elements to change with the short and long cable cases.
- Reviewed the channel loss budget assumptions for bulk cable, based on cable wire size (i.e. AWG). Cable assembly IL will be AWG dependent for a given length.
- Chris DiMinico agreed to prepare a presentation for January that summarizes the cable models to use for COM analysis.
- Chair noted that cable channel contributions are posted on the project website.

Presentation #3:
"25GE host/cable options" – Mark Nowell
See http://www.ieee802.org/3/25GSG/public/adhoc/architecture/nowell_120314_25GE_adhoc.pdf
- Goal of the presentation was to summarize the conversation on host and cable options so that questions can be addressed.
- Reviewed table from Mike Dudek's contribution. The number of combinations grew after offline discussion. Ten combinations would be challenging.
- On slide 7, Mark reduced the table to 2 configurations but identified some questions in MTTFPA and cable improvements.
- Reviewed several options to address high-level questions on the 3m cable configuration.

- Reviewed key takeaways and next steps.
- Discussed ways to minimize the number of configuration options: remove high loss host, improve cable, define FEC as part of PMD choice, reduce 3m cable to a shorter length.
- Discussed the need for backward compatibility to 802.3bj in switches vs. server.

Two more ad hocs are scheduled before the end of the year. Please request agenda time by email to Matt Brown.

Meeting ended at 9:35 a.m. Pacific.

List of attendees (captured from Webex tool)

Name	company
Adam Healey	avagotech
Adee Ran	intel
Andre Szczepanek	inphi
Arthur Marris (Cadence)	cadence
Brad Booth	microsoft
Brian Teipen	advaoptical
Carlo Tosetti	cisco
Chad Erven	semtech
Chris DiMinico	MC Communications
Chris Roth (Molex)	molex
Dale Murray	lightcounting
Dan Cunningham	arista
Dan Dove	dovenetworking
Daniel Koehler	morethanip
David Chalupsky (Intel)	intel
David Malicoat (HP)	hp
Don Cober	comira-inc
Erdem Matoglu	amphenol-tcs
Eric Baden (Broadcom)	broadcom
Flavio Marques	furukawa
george zimmerman	Aquantia & Commscope
Gordon Wiegand	3m
Greg LeCheminant	keysight
Ingvar Froroth	marvell
Jeff Slavick	avagotech
Joel goergen	cisco
John D'Ambrosia	Dell
John D	vitesse
Juan-Carlos Calderon	cortina-systems

Name	company
Kapil Shrikhande	dell
Kenneth Jackson	sei-device
Kent Lusted	intel
Liron Mula	mellanox
Marc Dupuis	molex
Mark Gravel	hp
Mark Gustlin	xilinx
Mark Nowell	cisco
martin	xpliant
Matt Brown	apm
Megha Shanbhag	te
Mike Andrewartha	microsoft
Mike Dudek	qlogic
Mike Li	altera
Paul Kolesar	commscope
Paul Mooney	spirent
Piers Dawe	mellanox
Pirooz Tooyserkani	cisco
Rakesh Sambaraju	nexans
Raymond Nering	cisco
Rich Mellitz (Intel)	intel
Rick Rabinovich	alcatel-lucent
Rita Horner	synopsys
Rob Stone (Broadcom)	broadcom
salvatore rotolo	st
Scott Irwin	mosys
Tony Zortea (PMCS)	pmcs
Venu Balasubramonian	marvell
Warren Meggitt	arista
Xiaoguang Cheng(Lenovo)	lenovo