

## **Minutes 25Gb/s Ethernet Architecture ad-hoc meeting 8/19/14**

### **Proposed agenda:**

- IEEE patent policy reminder
  - <http://www.ieee802.org/3/patent.html>
- Approval of the Agenda
- Presentations:
  - [Technical feasibility of 25G CR copper PMD](#) – Vineet Salunke, Cisco
  - [Data showing impact of FEC decisions on COM for 25G cable configurations](#) – Rich Mellitz, Intel
  - [Technical Feasibility Reuse of 802.3bj Channel Related Specifications](#) – Chris Diminico – updated from last meeting
- Discussion

### **Matt Brown – Agenda and opening remarks**

- Matt presented the agenda slides.
- Matt reminded everyone of the IEEE patent policy (<http://www.ieee802.org/3/patent.html>).
- Matt asked if anyone had any objection to the agenda as presented. There were no objections.
- Meeting minutes from Aug 12 meeting discussed. Matt asked if anybody objected to the posted draft minutes. There were no objections. Request to remove the email addresses (done)

### **Presentations posted at:**

**<http://www.ieee802.org/3/25GSG/public/adhoc/architecture/index.html>**

### **Vineet Salunke – Technical Feasibility of 25G CR copper PMD**

- reviewed slides
- reviewed FEC options and host/PMD variants
- proposed using Auto-negotiation to select FEC
- clarification on the use of language around “switch to switch” application. Various host board loss budgets may be different. Current host loss budgets used in previous specifications are consistent with switch implementations as well as servers. However, it is possible to conceive a lower host loss budget in some server implementations. Therefore, the presentation is really talking about a host with a loss budget consistent with 802.3bj and a potential host budget with a “lower” loss budget. This is referred to as switch-to-switch and switch-to-server respectively in the presentation. Author agreed to modify language in future to be specific to host loss budget type rather than assumed implementation type.
- discussion on whether a new objective is needed for a potential reduced host case where no-FEC may be possible, or whether the existing proposed objective (see [http://www.ieee802.org/3/25GSG/public/adhoc/architecture/nowell\\_081214\\_25](http://www.ieee802.org/3/25GSG/public/adhoc/architecture/nowell_081214_25)

[GE\\_adhoc.pdf](#)) are sufficient. Joel offered to bring an updated presentation next week to focus on proposed objective changes (if necessary)

#### **Rich Mellitz – Data showing impact of FEC decisions on COM for 25G cable configurations**

- reviewed slides
- Analysis of cable lengths, host loss budgets and FEC ability to meet COM target
- More discussion on modifying objectives and language.

#### **Chris Diminico – Technical Feasibility resuse of 802.3bj channel related specifications - update**

- reviewed updated slides
- modified MDI references pointing to SFF-8084 (SFP28)

#### **Discussion**

- most discussion happened after presentations
- request for presentation requests for next week to Matt by Friday
- Discussion on how we could modify the objectives from the draft ones shown last week
- No issues raised with draft backplane objective (Define a single-lane 25 Gb/s PHY for operation over a printed circuit board backplane consistent with channels specified in IEEE Std 802.3bj-2014 Clause 93)
- Some discussion on alternatives to the twin-ax objective.
- Original draft objective:
  - o Define a single-lane 25 Gb/s PHY for operation over copper twin-axial cables consistent with channels specified in IEEE Std 802.3bj-2014 Clause 92
- Alternative #1
  - o Define a single-lane 25 Gb/s PHY for operation over copper twin-axial cables consistent with the overall channel budget specified in IEEE Std 802.3bj-2014 Clause 92
- Alternative #2
  - o Define a single-lane 25 Gb/s PHY for operation over copper twin-axial cables based upon channels specified in IEEE Std 802.3bj-2014 Clause 92
- To be discussed next week.

## **Attendees (from Webex attendance )**

Ghani Abbas	Ericsson
Scott Feller	Cortina-systems
Tony Zortea	Pmcs
Rita Horner	Synopsys
Matt Brown	APM
Andy Zambell	FCI
Steve Trowbridge	Alcatel-Lucent
sam sambasivan	AT&T
Dale Murray	LightCounting
Chris DiMinico	MC Communications/ PHY-SI LLC/Panduit
Mark Nowell	Cisco
john petrilla	Avago
Joel Goergen	Cisco
Andre Szczepanek	Inphi
Frank Straka	Panduit
Arthur Marris	Cadence
Ingvar Froroth	Marvell
Adee Ran	Intel
Megha Shanbhag	TE
Mark Pilip	EZChip
Rich (Intel)	Intel
Vineet	Cisco
rashid	Synopsys
mike dudek	Qlogic
Oded Wertheim	Mellanox
Piers	Mellanox
Beth Kochuparambil	Cisco.com
JD	Dell
Adee Ran	Intel
Erdem Matoglu	Amphenol-tcs
Bob Wagner	Panduit
Peter Anslow	Ciena
pirooz	Cisco
Yong Kim	Broadcom
Nathan Tracy	TE
Paul Kolesar	Commscope
David Ofelt	Juniper
Herman Chen	JDSU

Omer Sella	Mellanox
Myles Kimmitt	Emulex
David Chalupsky	Intel
xinyuan wang	Huawei
Rashid	Synopsys
Derek Cassidy	BT
Jonathan King	Finisar