

## Minutes 25 Gb/s Ethernet ad-hoc meeting – October 8, 2014

Prepared by Adee Ran, Kent Lusted and Mark Nowell

### Proposed Agenda:

- Approval of the Agenda
- IEEE patent policy reminder (see <http://www.ieee802.org/3/patent.html>)
- Approval of draft minutes for October 1
- 25 Gb/s Ethernet link configuration – Adam Healey
- 25G PCS Considerations - A follow up – Yong Kim
- OTN Support for 25GbE – Steve Trowbridge
- Discussion

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

Meeting began at 8:04 a.m. Pacific.

Meeting began with the agenda presentation:

[http://www.ieee802.org/3/25GSG/public/adhoc/architecture/agenda\\_100814\\_25GE\\_adhoc.pdf](http://www.ieee802.org/3/25GSG/public/adhoc/architecture/agenda_100814_25GE_adhoc.pdf)

Mark Nowell chaired the ad hoc meeting in Matt Brown's absence.

Mark Nowell showed the links to the ad hoc page and the email reflector.

Mark Nowell reviewed the Attendance information related to the ad hoc. He reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes.

Mark presented the proposed agenda. There were no objections to the agenda.

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

The October 1st meetings minutes were posted after the meeting. No comments were received. Mark Nowell asked if there were objections to approving the minutes as posted. No one responded. The October 1st meeting minutes were approved by the ad hoc.

### Presentation #1:

Adam Healey – “25 Gb/s Ethernet link configuration”

See [http://www.ieee802.org/3/25GSG/public/adhoc/architecture/healey\\_100814\\_25GE\\_adhoc.pdf](http://www.ieee802.org/3/25GSG/public/adhoc/architecture/healey_100814_25GE_adhoc.pdf)

- Building blocks could be defined to address the usage cases. There are some incompatible cases.

- There are a number of copper cable cases where interoperability is not guaranteed even though physical mating is possible.
- Discussed non-compatible cases and if it should be handled or cautioned in the spec. Methods outside the scope of IEEE 802.3 could assist with corner cases (i.e. cable EEPROM).

#### **Presentation #2:**

Yong Kim – “IEEE 802.3 25G Ethernet SG – Arch Ad Hoc Layering and Gaps”

See [http://www.ieee802.org/3/25GSG/public/adhoc/architecture/kim\\_100814\\_25GE\\_adhoc.pdf](http://www.ieee802.org/3/25GSG/public/adhoc/architecture/kim_100814_25GE_adhoc.pdf)

- Recap of previous week’s discussion
- Closer analysis of the sublayer aspects of 25GE data path elements and potential leverage from current 10GE or 40GE/100GE data path elements
- Reviewed the implementation complexities and differences between developing a 25GE PCS when starting from a CL 49 implementation or a CL82 implementation
- Reviewed the implementation complexity of modifying CL 91 RS FEC for 25GE use when starting from a CL49 4B implementation or a CL82 8B implementation
- The authors conclude that, when considering implementation of 25GE PCS, that use of CL49 was better starting point, and RS-FEC modifications were approximately equivalent between starting points

#### **Presentation #3:**

Steve Trowbridge - “OTN Support for 25GbE”

See [http://www.ieee802.org/3/25GSG/public/adhoc/architecture/trowbridge\\_100814\\_25GE\\_adhoc.pdf](http://www.ieee802.org/3/25GSG/public/adhoc/architecture/trowbridge_100814_25GE_adhoc.pdf)

- Discussed the elements that represent appropriate support for OTN
- Key elements:
  - Define handling of non-specified control blocks as errors
  - OTN mapped format should remain same (FEC & no-FEC)
  - Likely only see optical PMDs interfacing to OTN, but comment that there should be architectural clarity on handling of all PMDs
  - Data rate compatibility with OTN tributaries not considered an issue
- Explanation of how Ethernet FEC handled in OTN
- Comments on value of alignment marker’s other function as BIP error monitors

Next meeting is Wednesday, October 22, 2014. Please request agenda time by email to Matt Brown.

Meeting ended at 9:40 a.m. Pacific.

## List of attendees (captured from Webex tool)

Mark Nowell cisco  
Ghani Abbas ericsson  
Mike Andrewartha microsoft  
Rita Horner synopsis  
Steve Trowbridge alcatel-lucent  
Eric Baden (Broadcom)  
Bob Wagner panduit  
Casey Morrison ti  
Kenneth Jackson sei-device  
Cedrik Begin cisco  
Adee Ran intel  
Kent Lusted intel  
Ingvar Froroth marvell  
Chris DiMinico MC Communications  
Juan-Carlos Calderon cortina-systems  
Oded Wertheim mellanox  
rob stone broadcom  
rakesh sambaraju nexans  
Mike Andrewartha (Microsoft)  
Nathan Tracy te  
Rich Mellitz (Intel) intel  
Adam Healey avagotech  
John D'Ambrosia Dell  
Chris Roth molex  
Joel Goergen cisco  
martin white xpliant  
Piers Dawe mellanox  
Jon Lewis dell  
Venu B marvell  
Peter Anslow ciena  
yong kim broadcom  
mtdudek qlogic  
Tony Zortea pmcs  
Greg LeCheminant keysight  
scott sommers molex  
Megha Shanbhag te  
Brad Booth microsoft  
Tom Ambrose emulex  
Dale Murray lightcounting  
sam sambasivan att  
Dave Brown semtech  
David Koenen(hp) hp  
Scott Feller cortina-systems  
Gary Nicholl cisco  
Tom Palkert visi  
Zhongfeng Wang broadcom

David Ofelt	juniper
Jacky Chang	hp
Rob Stone	broadcom
Ron muir	jae