PHY BASELINE PROPOSAL AD HOC MINUTES - unapproved
13 February 2014

Welcome – Fourth meeting.
From the minutes of the November Task Force Plenary meeting:

The Chair then chartered a PHY proposal ad hoc, chaired by George Zimmerman, with the following charter/objectives:

- Identify elements necessary to form a baseline proposal
    - Signaling bandwidth (bounds)
    - Modulation, EQ, coding, etc.

Participants are encouraged to review IEEE meeting guidelines available at the following URL - https://development.standards.ieee.org/myproject/Public/mytools/mob/preparslides.pdf
A proposed agenda for the meeting follows.

9AM Pacific Time meeting start
George Zimmerman, of CME Consulting, affiliated with Commscope & Aquantia, Chair of the ad hoc, called the meeting to order.

1. Roll call : The Chair Requested attendees to please send an email indicating your attendance, employer and affiliation to mailto:george@cmeconsulting.onmicrosoft.com?subject=802.3bq PHY ad hoc attendance 13 Feb 2014
   Meeting attendance and affiliation are below: (affiliation & employer are the same unless indicated as employer / affilation)
   Brian Buckmeier – Bel Stewart Connector
   Dave Jeskey - Sentinel
   Harry Forbes - Nexans
   Peter Wu – Marvell
   Paul Wachtel - Panduit
   Sterling Vaden – Vaden Enterprises / Vaden Enterprises
   Tom Souvignier – Broadcom
   Victor Renteria – Bel Stewart Connector
   Will Bliss – Broadcom
   Chris DiMinico – MC Communications / Panduit
   George Zimmerman – CME Consulting / Aquantia & Commscope
   Pete Cibula – Intel
   Kory Sefidvash - Broadcom
   Masood Shariff – Commscope
   Thuyen Dinh – Pulse
   Bob Wagner - Panduit

2. Reminder of IEEE patent policy
   www.ieee802.org/3/patent.html

At 9:08 AM the Chair asked if there were any individuals on the call who were unfamiliar with the patent policy, and there were no responses heard. The Chair reminded all to review their obligations under the policy at the link above.

3. Housekeeping

Review & approve meeting agenda. :
M: Pete Cibula
S: Chris DiMinico
Approved by voice vote without opposition

Approve minutes from 23 January 2014 meeting
http://www.ieee802.org/3/bq/public/phyproposal/minutes_3bq_phyadhoc_jan-23-14.pdf
M: Pete Cibula
S: Chris DiMinico
Approved by voice vote without opposition

4. Old business from previous ad hoc meeting:

The chair reviewed the action items discussed at the previous meeting:

The following future contributions were planned at the last meeting:

- Training time/time-to-link – User perceptions (Dave C./Pete C.)
- Cable bending - End user inputs – (Dave C./Pete C.)
- Metrics & Requirements (e.g. power, use model) for a successful PHY proposal – (Chris D.)
- Impacts of each of the suggested modifications in zimmerman_3bqah_02_1213.pdf - (George Z)
- Transmitter launch power vs. power consumption – (Peter Wu)

The following items were offered that require additional input, but for which no one actually signed up for a new contribution:

- Discussion of MDI – impacts, choices, etc.
- How to test /specify performance under cable bend?
- PHY designers to discuss direct-attach power saving opportunities
    - With vs. without specification (does it need to be standardized)

5. New business at this meeting:

The group then heard a new contribution from Peter Wu, Marvell, emailed to the reflector as Wu_01a_0214_802.3bq_adhoc.pdf, entitled "PBO in 40GBase-T ?", addressing the Transmitter launch power and power consumption issue above.

The contribution highlighted a potential for 15% power reduction with power backoff, and suggested that PBO may be considered for power savings, possibly simplified from 10GBASE-T, but it was too early to do so, especially before host noise measurements were presented.

Some key points from the discussion are captured below:

- Generally, the group thanked Peter for his contribution
- Usefulness of PBO on a 30meter line may be more related to power savings than crosstalk considerations which were the focus of the 100 meter 10GBASE-T PBO
- There were some questions about interaction of Autonegotiation, multi-speed PHYs and the PBO decision

- There were comments that operational power savings, such as could be had from PBO would be welcome, even if they are not savings in maximum power.
- There was some discussion that receiver noise levels may be an input into the PBO algorithm in 40GBASE-T, whereas 10GBASE-T was driven by insertion loss and nominal TX power only.

6. Next meeting time: To avoid conflict with a standing 802.3bp meeting, we propose to shift the next meeting by 2 hours, to be Thursday February 27, **10AM** PST.
    - There was no objection to the time shift.

Adjournment:

The meeting was adjourned without opposition at 9:56AM PST.