Closing Report

IEEE 802.3
400 Gb/s Ethernet Study Group

John D'Ambrosia, Dell
Dallas, TX, USA
IEEE 802 Nov 2013 Plenary

Reflector and Web

- To subscribe to the 400G reflector, send an email to:

  ListServ@ieee.org

  with the following in the body of the message (do not include "<>"):

  subscribe stds-802-3-400G <yourfirstname> <yourlastname>

  end

- Send 400G reflector messages to:

  STDS-802-3-400G@listserv.ieee.org

- Task Force web page URL:

  http://www.ieee802.org/3/400GSG/index.html

- Ad hoc area URL:

  http://www.ieee802.org/3/400GSG/public/adhoc/index.shtml

This Week

- Met Tues – Thurs (noon)
- 175 attendees throughout week
- Applications / Logic Ad hoc Update
- 1 Communication Considered
  - ISO/IEC JTC1/SC 25 WG3: Status of standards to support parallel single mode optical fibre cabling
  - Deferred until January 2014
- 20 Presentations
  - Objectives
  - Technical Feasibility
  - Economic Feasibility
- Adopted BER & Reach Objectives
- Optimistic about requesting PAR Authorization for Mar 14

SG Strawpolls

- I would support the objective:
  - Provide appropriate support for breakout functionality
- Results: Y 55   N 39   A 14

- I would support the objective format –

  Provide physical layer specifications which support link distances of:
  - At least Y km of SMF
  - At least X m of MMF
- Results :   Y 100   N 6   A 5

Reach Objectives Strawpoll

	Results (All)
I would support an objective targeting a reach of:	
a. At least 5m over copper twin-axial cables	25
b. Backplane application	26
c. At least 100m over MMF	74
d. At least 500m over SMF	87
e. At least 2km over SMF	94
f. At least 10km over SMF	63
g. At least 40km over SMF	14
h. No PMDs	1
i. Undecided	0

Room Count: 130

Summary of Objectives Motions

	All (y/n/a)	802.3 (y/n/a)	Results
Adopt the objective of "Provide physical layer specifications which support link distances of:			
At least 2 km over SMF"	99 / 5 / 8	73 / 3/ 7	Pass
At least 500m over SMF"	80 / 7 / 29	53 / 9 / 20	Pass
At least 100m over MMF"	84 / 8 / 26	63 / 7 / 10	Pass
At least 10km over SMF"	82 / 20 / 23	60 / 16 / 18	Pass
At least 1m over printed circuit board and copper cable backplanes"	31 / 39 / 44	26 / 33 / 28	Fail
Move that the 400 Gb/s Study Group adopt the following objective: Support a BER of better than or equal to 10^{-13} at the MAC/PLS service interface (or the frame loss ratio equivalent)	67 / 10 / 48	48 / 9 / 26	Pass

Adopted Objectives

- Support a MAC data rate of 400 Gb/s *

- **Support a BER of better than or equal to 10^{-13} at the MAC/PLS service interface (or the frame loss ratio equivalent) ***

- Support full-duplex operation only *

- Preserve the Ethernet frame format utilizing the Ethernet MAC *

- Preserve minimum and maximum FrameSize of current Ethernet standard *

- Provide appropriate support for OTN *

- Specify optional Energy Efficient Ethernet (EEE) capability for 400 Gb/s PHYs *

- Support optional 400 Gb/s Attachment Unit Interfaces for chip-to-chip and chip-to-module applications **

- **Provide physical layer specifications which support link distances of:**
  - **At least 100 m over MMF ***
  - **At least 500 m over SMF ***
  - **At least 2 km over SMF ***
  - **At least 10 km over SMF ***

*   Adopted by SG July 2013. Not approved by IEEE 802.3 WG
**   Adopted by SG Sept 2013. Not approved by IEEE 802.3 WG
*** Adopted by SG Nov 2013. Not approved by IEEE 802.3WG

IEEE 802.3 400 Gb/s Ethernet Study Group

Study Group Motion

- Move to:
  - Request that the IEEE 802.3 Working Group extends the 400 Gb/s Ethernet Study Group

- M: K. Lusted

- S: P. Anslow

- Procedural (>50%)

- Result: Pass by voice without objection

WG Motion

- Move that IEEE 802.3 Working Group extends the 400 Gb/s Ethernet Study Group.

- M: D'Ambrosia on behalf of the SG
- (> 50%)
- Results (y/n/a): 94 / 0 / 0
- Motion Passes

Future Meetings

- See: http://www.ieee802.org/3/interims/index.html

- January 2014 Interim (hosted by Xilinx)
  - Week of January 20
  - Hyatt Regency Indian Wells, CA, USA

- March 2014 Plenary
  - Week of March 16
  - Beijing, China

- May 2014 Iinterim (hosted by Ethernet Alliance)
  - Week of May 12
  - Norfolk, VA, USA

- July 2014 Plenary
  - Week of July 13
  - Manchester Grand Hyatt, San Diego, CA, USA

Thank You!