IEEE 802.3
Opening Plenary Report

IEEE 802.3
400 Gb/s Ethernet Study Group

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Request for Formation of Study Group (as per Mar ' 13 Plenary Motion)

- Move the IEEE 802.3 Working Group authorizes the formation of a study group for "400 Gb/s Ethernet."

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

Activities Since July 2013 Plenary

- IEEE 802.3 September Interim, York, UK
- Logic Ad hoc
- Applications Ad hoc
  - 01-Oct
  - 30-Oct

Sept Interim Summary

- 90 Attendees
- 14 Technical Presentations
- Summary
  - New Objective adopted – new interfaces
    - Motion: Move that the 400Gb/s Study Group adopt the following objective: "Support optional 400Gb/s Attachment Unit Interfaces for chip-to-chip and chip-to-module applications".
    - Results (all, room count 66): Y: 57 N: 0 A: 5
  - Approved Informal communication to ITU-T SG15
  - Group recognizes need to focus on objectives
  - Other Issues: BER, Reach Objectives
- Thanks to ADVA and John Messenger

Overview of Stated Reach Needs

Presentation	100m	500m	1km	2km	10km	40km
maki_400_01a_0513	x	x				
song_400_01_0513	x					
trowbridge_400_01_0513	x	x		x	x	x
hirai_400_01_0713					x	x
issenhuth_400_01_0713		x	x	Beyond 1km		
jewell_400_01a_0713	X (200m)	x				
nicholl_400_01_0713	←———→	←————————————————————→				
palkert_400_01_0713	x	x		x	x	x
song_400_01a_0713				x	x	
takahara_400_01_0713		x			x	x
vijn_400_01a_0713		←——————————————————→				
wenyu_400_01_0713		x		x	x	x
palkert_400_01_0913	←————————→					
song_x_400_01_0913				x	x	x

Sept 2013 Straw Polls

Straw Polls #4 and #5

SMF "Inside Building" Reach Objectives

	Chicago Rules	Choose One
500m	30	18
1km	13	1
2km	34	27
Undecided	11	16

Straw Polls #6 and #7

SMF "Outside Building" Reach Objectives

	Chicago Rules	Choose One
2km	10	4
2km < x < 10km	5	0
10km	39	34
10km < x < 40km	8	1
40km	31	11
Undecided	10	12

Sept-13 Interim Straw Poll #8 (Chicago Rules)

- I would support an objective that reads "Define a 400Gb/s PHY for operation up to at least X of MMF" wherein X is:

  a) a distance less than 30m
  b) 30m
  c) a distance between 30m and 100m
  d) 100m
  e) a distance between 100m and 200m
  f) 200m
  g) a distance greater than 200m
  h) undecided

- Results (All)
- a) 0   b) 3   c) 2 d) 25   e) 2   f) 1   g) 0   h) 42

Sept-13 Interim Straw Poll #9 (Chicago Rules)

- I would support an objective that provides 400Gb/s operation over:

  a) at least 100m over OM-Y MMF and at least 100m over OM4

  b) about 200m over OM-Y MMF and at least 100m over OM4

  c) about 200m over OM-Y MMF and at least 30m over OM4

  d) at least 200m over OM-Y MMF

  e) at least 300m over OM-Y MMF

  f) none of the above

  g) Undecided

- Results (All)
- a) 8   b) 6   c) 1   d) 1   e) 1   f) 2   g) 53

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Logic Ad hoc

- ## The 400 Gb/s Ethernet Study Group Logic Ad hoc:
  - Held 1 meeting on October 23rd
  - Previously opportunity on October 1st was cancelled due to lack of presentation requests

- ## Reviewed 3 presentations:
  - A 400GbE PCS Option – Mark Gustlin
  - 400GbE PCS Direct Coding Analysis - Haoyu Song
  - Error performance objective for 400GbE – Pete Anslow

Applications Ad hoc Activities

- 09-Oct Conference Call
  - Webex / Teleconference hosted by Hugh Barrass, Cisco. Thanks!
  - 4 Technical Presentations
    - Objectives to Support Cloud Scale Data Center Design, Booth / Issenhuth
    - Ethernet Deployment from an Optical Module Perspective, Murray
    - Early Market PMD Types for Core Router to Transport Interconnect, Moorwood
    - Objective Considerations: Given Today's Data Center Environment, D'Ambrosia / Law

- 30-Oct Conference Call
  - Webex / Teleconference hosted by Hugh Barrass, Cisco. Thanks!
  - 1 Technical Presentation
    - Breakout Functionality: D'Ambrosia

Goals for the meeting week

- Hear presentations (20) related to Objectives and 5 Criteria

- Develop consensus on Objectives

- Lay the ground work for the next meeting

Thank You!