IEEE 802.3
Opening Plenary Report

IEEE P802.3bs 400 GbE Task Force

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IEEE 802 July 2014 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/bs/index.html

- Ad hoc area URL:

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

Activities Since Mar 2013 Plenary

- PAR Modification Approved @ June Standard Board Meeting
- IEEE 802.3 May Interim, Norfolk, VA, USA (thanks to Ethernet Alliance!)
- Ad Hoc Calls

Battleship Wisconsin, May 2014

May Interim Summary

- 133 Attendees
- 28 Presentations
- Summary
  - Straw Polls (see next two pages)
  - Timeline Adopted
  - Informal Communication to OIF approved & sent
  - It’s all inter-related

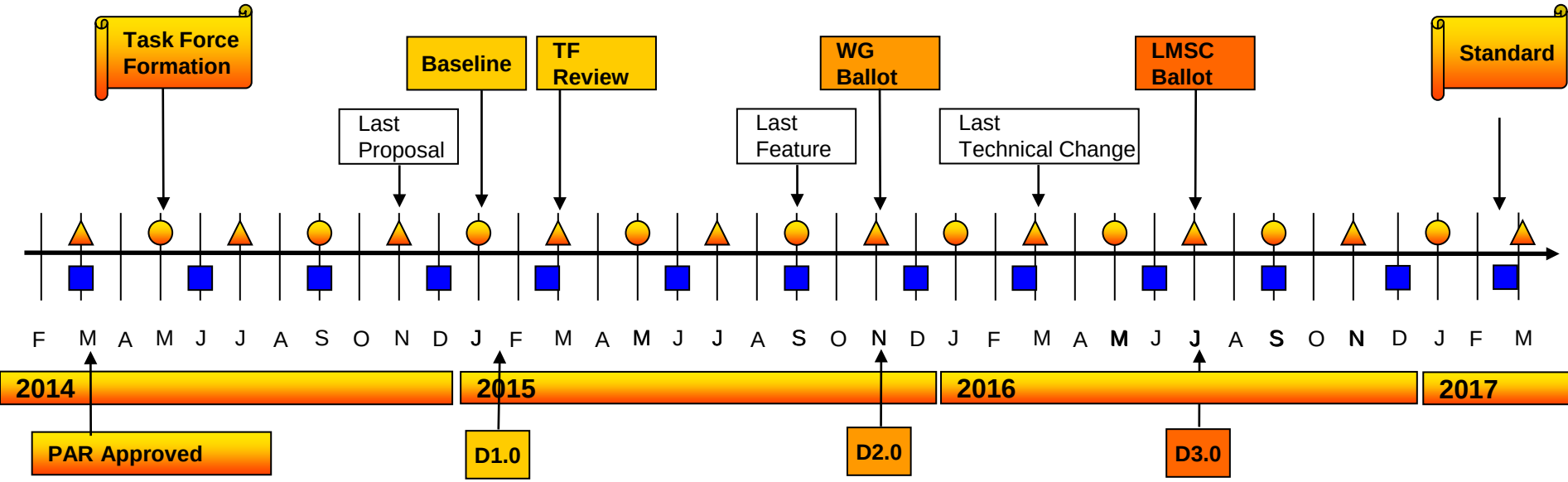
Straw Polls May 2014 Interim (1 of 2)

2	IEEE 802.3bs should target the initial 400GbE electrical chip-to-chip interface to be based on bit-rate per lane of:	a) 25G b) 40G c) 50G d) 100G	64 0 31 0
3	IEEE 802.3bs should target the initial 400GbE electrical chip-to-module interface to be based on bit-rate per lane of:	a) 25G b) 40G c) 50G d) 25 & 50G	49 0 16 24

Straw Polls May 2014 Interim (2 of 2)

4a	I believe that 2km 400GbE SMF PMD will use a duplex fiber solution	**Y/N**	**70 / 6**
4b	I believe that 10km 400GbE SMF PMD will use a duplex fiber solution	**Y/N**	**85 / 0**
5	Chicago Rules: For 2km duplex SMF 400GbE PMD, I believe the TF should select a proposal based on an effective bit rate per wavelength per direction of:	25G **50G** **100G** 400G	5 **51** **77** 10
6	Chicago Rules: For 10km duplex SMF 400GbE PMD, I believe the TF should select a proposal based on an effective bit rate per wavelength per direction of:	25G **50G** **100G** 400G	5 **53** **74** 11
7	I believe that a 500m SMF PMD could use parallel fiber solutions:	**Y/N**	**77 / 0**
8	Chicago Rules: I believe fiber count for a 500m SMF PMD parallel fiber link solution should be based on (in each direction):	4 fibers 8 fibers 16 fibers	82 28 16
9	Chicago Rules: I believe fiber count for a 100m MMF PMD using a parallel fiber link solution should be (in each direction)	4 fibers 8 fibers 16 fibers Room	29 33 62 118

Adopted Timeline



TF Reviews

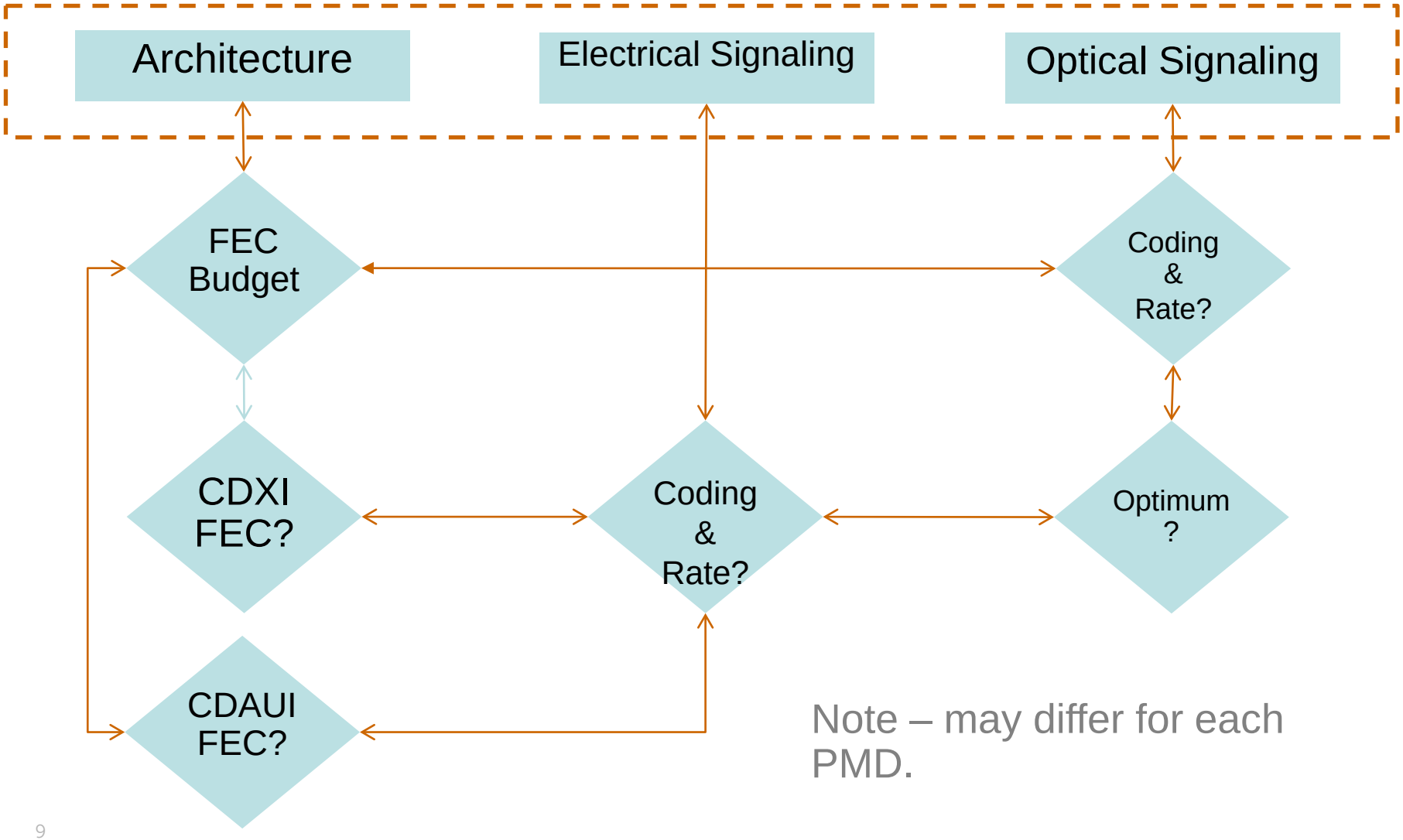
WG Ballots

LMSC Ballots

Legend

- IEEE 802 Plenary
- IEEE 802.3 Interim
- IEEE-SA Standards Board

Interrelations Between Technical Decisions



Note – may differ for each PMD.

Ad Hoc Calls

- Logic Ad Hoc (Chaired by Mark Gustlin)
  - 23 April (77 attendees) Reviewed 3 presentations
  - 1 July (63 attendees) Reviewed 3 presentations)
  - Summary of both meetings – ongoing work to define architecture for 400GbE and has looked at Bit Multiplexing, FEC, OTN)
- Task Force Ad Hoc Call (Chaired by John D'Ambrosia
  - 4 June, (31 attendees) Summary: Reviewed 1 presentation. Discussion on Task Force moving forward. SMF and MMF Ad Hocs chartered.
- SMF Ad Hoc (Chaired by Pete Anslow)
  - 19 June, (55 attendees) Summary: Reviewed 2 presentations on 400GbE SMF alternatives & considerations.
- MMF Ad Hoc (Chaired by Jonathan King)
  - 20 June, (40 attendees): Summary: Reviewed 2 presentations on MMF, preliminary link budgets for VCSEL MMF approaches
- Configurations and Use Cases Ad Hoc (Chaired by Hugh Barrass)
  - 24 June (29 attendees) : Summary reviewed architecture presentation and use cases. On-going work needed.

This week

- Hear 32 Technical Presentations (3 additional late presentations pending TF approval and time availability)
- Identify Steps Moving Forward
- Address Multiple Technical Key Issues
  - Architecture
  - FEC
  - Electrical Interfaces: 16x25 vs 8x50 vs both
  - MMF PMDs (no presentations)
  - SMF PMDs
    - # of wavelengths and effective rate per lambda
    - Modulation schemes
    - Commonality between PMDs?
- Note: TF Meeting starting Tuesday @ 10:30am pending completion of IEEE P802.3bm

Thank You!