

# IEEE P802.3bs 400GbE Task Force Opening Report

John D'Ambrosia

Dell

Waikoloa, HI, USA

July 13, 2015

# IEEE P802.3bs 400GbE Task Force

## Project information

---

- Task Force Organization
  - John D'Ambrosia, IEEE P802.3bs Task Force Chair
  - Kent Lusted, IEEE P802.3bs Task Force Secretary
  - Pete Anslow, IEEE P802.3bs Task Force Chief Editor
  - Mark Gustlin, Clause 117 Editor
  - Jonathan King, Clause 121 Editor
  - Andre Szczepanek, Annexes 120D, 120E
  - Peter Stassar, Clause 124 Editor
- Task force web and reflector information
  - Reflector information: <http://www.ieee802.org/3/400GSG/reflector.html>
  - Home page: [\*\*http://www.ieee802.org/3/bs/index.html\*\*](http://www.ieee802.org/3/bs/index.html)
    - PAR: [http://www.ieee802.org/3/bs/PAR\\_P802.3bs\\_14\\_0612.pdf](http://www.ieee802.org/3/bs/PAR_P802.3bs_14_0612.pdf)
    - CSD (including 5C): [http://www.ieee802.org/3/bs/CSD\\_400\\_14\\_0121.pdf](http://www.ieee802.org/3/bs/CSD_400_14_0121.pdf)
    - Objectives: [http://www.ieee802.org/3/bs/Objectives\\_14\\_0320.pdf](http://www.ieee802.org/3/bs/Objectives_14_0320.pdf)
    - Approved Timeline [http://www.ieee802.org/3/bs/timeline\\_3bs\\_0514.pdf](http://www.ieee802.org/3/bs/timeline_3bs_0514.pdf)

# IEEE P802.3bs 400GbE Task Force

## Activities since Mar 15 Plenary

---

- Met during the May 15 interim meeting
  - Major items discussed, decisions made and actions
    - Reviewed 23 technical presentations
    - Decisions made
      - Motion #6 (Reconsidered) - Move to adopt 8 lambda x 50 Gb/s as the basis for the 10 km SMF PMD objective. Results All(y/n/a): 87/22/18, 802.3(y/n/a): 65/18/11
      - Motion #10 - Move to adopt 8x50G PAM4 as the modulation format for the 10km SMF (single mode fiber) PMD objective. Results All (y/n/a): 86/24/12, 802.3(y/n/a): 65/17/10
      - Motion #11 - Move to adopt a baseline for the 10km SMF PMD objective based on the 10km proposal in cole\_3bs\_01a\_0515. Results: All (y/n/a) 62/6/34
      - Motion #12 - Move to adopt 4x100G PAM4 PSM4 as the modulation format for the 500m SMF (single mode fiber) PMD objective. Results: All (y/n/a) 66/5/37
    - Reviewed Liaison from OIF: No Action taken
  - Thanks to Ethernet Alliance for hosting.
- Multiple Ad hoc meetings (Logic, SMF)
  - Resolve FEC Architecture (1x400G vs 4x100G)
  - SMF Objectives (500m & 2km)

# Summary of PHY Objectives

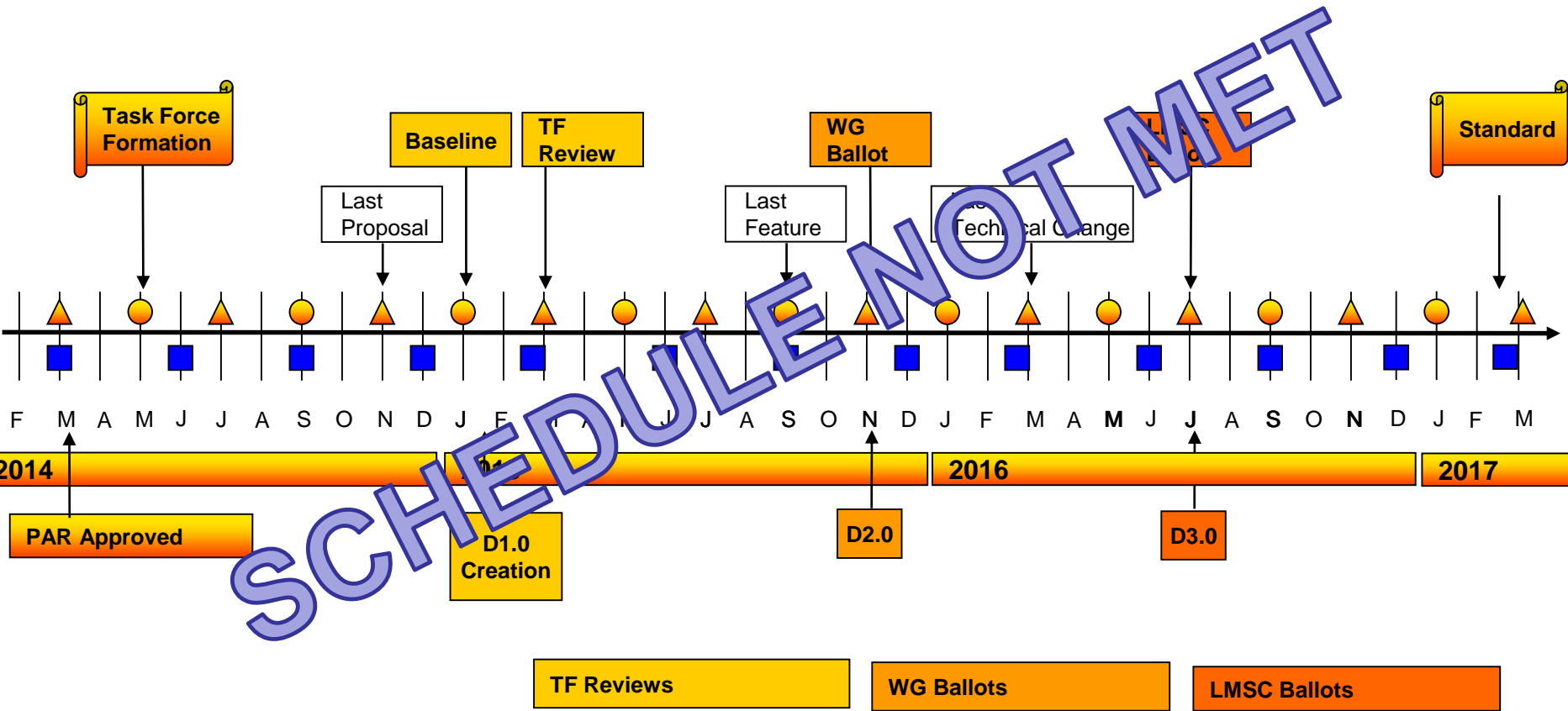
100m MMF	25G NRZ x16 fibers				
500m SMF					1 $\lambda$ x 100G PAM4 x4 fibers
2km SMF		8 $\lambda$ x 50G NRZ x1 fiber	8 $\lambda$ x 50G PAM4 x1 fiber	4 $\lambda$ x 100G PAM4 x1 fiber	
10km SMF			8 $\lambda$ x 50G PAM4 x1 fiber		

Selected

To be determined

"x1 fibers" uses 2 fibers total (1 in each direction)  
 "x4 fibers" uses 8 fibers total (4 in each direction)  
 "x16 fibers" uses 32 fibers total (16 in each direction)

# IEEE P802.3bs 400GbE Adopted Timeline



Adopted by IEEE P802.3bs 400GbE Task Force, May 2014 Interim.

**Legend**

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

# IEEE P802.3bs 400GbE Task Force

## Meeting Week Plan

---

- Goals for the meeting
  - 20 Technical Presentations
    - SMF (500m / 2km) baselines
    - PCS (FEC) / PMA
    - CDAUI electricals / COM
  - Decisions needed to generate D1.0
    - PCS (FEC) / PMA Baseline
    - 4x100G PAM4 PSM4 Baseline
    - 2km SMF Baseline
    - Timeline to be revisited @ meeting after all baseline decisions made.
  - Liaisons & Communications
    - Respond to COBO communication
    - Status update to ITU-T and OIF

# Questions?

---

# Thank you!