

IEEE 802 Mar 2024

**IEEE 802.3 Ethernet WG
Opening Plenary
11 Mar 2024**

**IEEE P802.3dj
200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/s
Ethernet Task Force
Opening Report**



IEEE P802.3dj Task Force Project information

■ Organization

- **John D'Ambrosia, Chair, IEEE P802.3dj Task Force**
- **Mark Nowell, Vice-Chair, IEEE P802.3dj Task Force; Chair, Optics Track**
- **Kent Lusted, Secretary, Chair, Electrical Track**
- **Matt Brown, IEEE P802.3dj Chief Editor**
- **Gary Nicholl, Chair, Architecture and Logic Track**

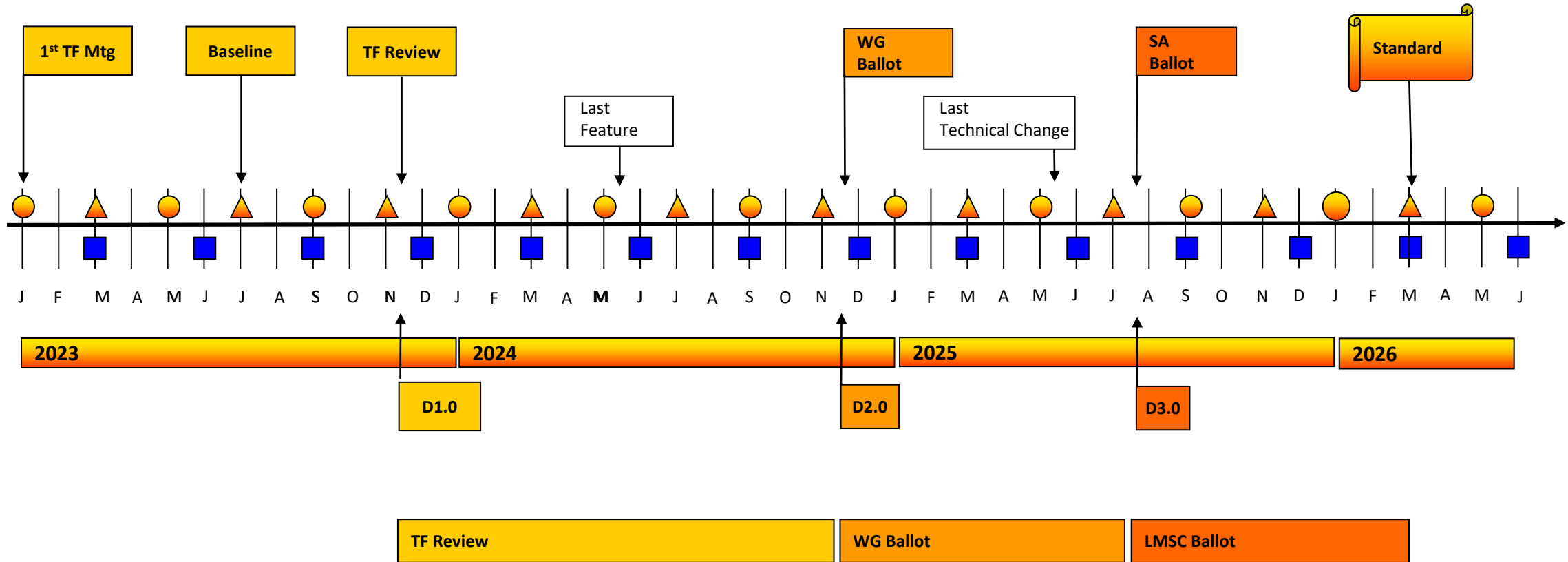
▪ Task force web and reflector information:

- Home page: <https://www.ieee802.org/3/df/index.html>
- Reflector Info - <https://www.ieee802.org/3/df/reflector.html>
 - TF Reflector: stds-802-3-b400g@listserv.ieee.org
 - Logic Reflector: stds-802-3-b400g-logic@listserv.ieee.org
 - Optical Reflector: stds-802-3-b400g-optx@listserv.ieee.org
 - Electrical Reflector: stds-802-3-b400g-elec@listserv.ieee.org

▪ Project Documentation –

- PAR : https://www.ieee802.org/3/dj/projdoc/P802d3dj_PAR.pdf
- CSD: <https://mentor.ieee.org/802-ec/dcn/22/ec-22-0256-00-ACSD-p802-3dj.pdf>
- Objectives: https://www.ieee802.org/3/dj/projdoc/objectives_P802d3dj_230518.pdf
- Adopted Timeline: https://www.ieee802.org/3/dj/projdoc/timeline_3dj_230116.pdf

Adopted IEEE P802.3dj Timeline (16 Jan 2023)



Legend

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

Activities Since Nov 2023 Plenary

- **Meetings**
 - **Jan 2024 Interim -**
https://www.ieee802.org/3/dj/public/24_01/index.html
- **Key Decisions –**
https://www.ieee802.org/3/dj/projdoc/KeyMotions_3dj_240125.pdf
 - **New objective adopted –**
 - **Define a physical layer specification that supports 800 Gb/s operation over a single SMF in each direction with lengths up to at least 20 km**
- **Proposed draft contributed by editorial team**
- **Ad Hoc Meetings -** <https://www.ieee802.org/3/dj/public/adhoc/index.html>
 - **Electrical Ad hoc – 07 Dec, 04 Jan, 11 Jan, 08 Feb, 29 Feb**
 - **Optical / Logic Ad hoc – 14 Dec, 22 Feb**

Summary IEEE P802.3dj Progress @ End of Jan 2024 Interim – Logic

	AUI	Backplane	CU Cable	SMF 500m/2km	SMF 10km 4 Wavelength	SMF 10km 1 Wavelength	SMF 20km 1 Wavelength	SMF 40km
Ethernet Rate	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?
200 Gb/s	Adopted	Adopted	Adopted	Adopted	Proposed	Proposed	Proposed	Proposed
400 Gb/s	Adopted	Adopted	Adopted	Adopted	Proposed	Proposed	Proposed	Proposed
800 Gb/s	Adopted	Adopted	Adopted	Adopted	Adopted	Adopted	Proposed	Adopted
1.6 Tb/s	Adopted	Adopted	Adopted	Adopted	Proposed	Proposed	Proposed	Proposed

Adopted baselines

Proposed Baselines

Summary IEEE P802.3dj Progress @ End of Jan 2024 Interim – PMDs (& AUIs)

Ethernet Rate	Assumed Signaling Rate	AUI	Backplane	Cu Cable	SMF 500m	SMF 2km	SMF 10km	SMF 20km	SMF 40km
200 Gb/s	200 Gb/s	200GAUI-1 C2C C2M	200GBASE-KR1	200GBASE-CR1	200GBASE-DR1	200GBASE-FR1			
400 Gb/s	200 Gb/s	400GAUI-2 C2C C2M	400GBASE-KR2	400GBASE-CR2	400GBASE-DR2	400GBASE-DR2-2			
800 Gb/s	200 Gb/s	800GAUI-4 C2C C2M	800GBASE-KR4	800GBASE-CR4	1.800GBASE-DR4 2.800GBASE over 4λ	1. 800GBASE-DR4-2 2. 800GBASE-FR4	800GBASE-LR4		
	800 Gb/s						Over single SMF in each direction Coherent	Over single SMF in each direction Coherent	Over single SMF in each direction Coherent
1.6 Tb/s	100 Gb/s	1.6TAUI-16 C2C C2M							
	200 Gb/s	1.6TAUI-8 C2C C2M	1.6TBASE-KR8	1.6TBASE-CR8	1.6TBASE-DR8	1.6TBASE-DR8-2			

Adopted baselines

Proposed Baselines

802.3dj Mar Plenary Plans

- **Meet jointly with IEEE P802.3cw Task Forces**
- **27 Technical Presentations**
- **Major Topics –**
 - **Baseline Selection**
 - **Liaisons**
 - **MOPA**
 - **ITU-T – G.652 fiber link Property**
- **Preparations to initiate Task Force Review out of this meeting**
- **Request to 802.3WG for approval of objective adopted @ Jan 2024 Interim**

THANK YOU!

