

Leadership Observations

**Joint Session -
IEEE P802.3df Task Force
IEEE P802.3dj Task Force**

**Jan 2023 Session
08 Feb 2023**

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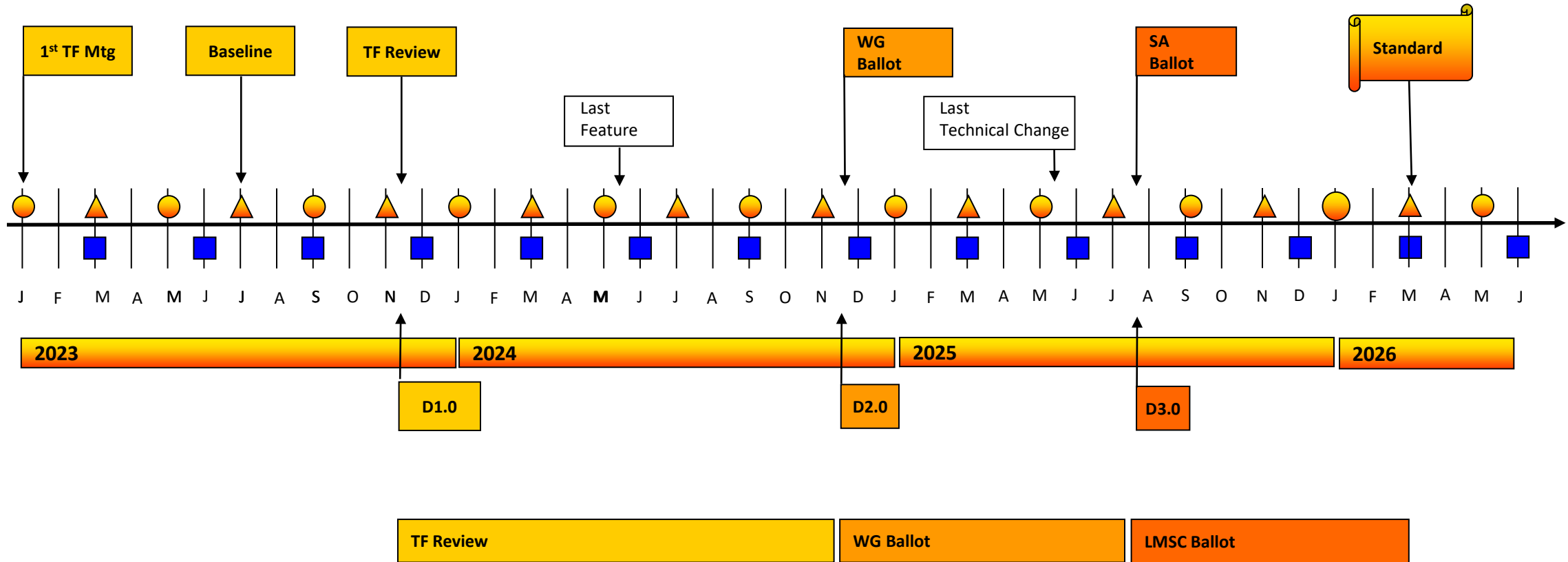
Kent Lusted, Intel

Mark Nowell, Cisco



JOHN D'AMBROSIA
CHAIR, IEEE P802.3dj

Adopted IEEE P802.3dj Timeline



Legend

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

Summary Progress

Ethernet Rate	Assumed Signaling Rate	AUI	Cu Cable	SMF 500m	SMF 2km	SMF 10km	SMF 40km
200 Gb/s	200 Gb/s	200GAUI-1 C2C C2M	200GBASE-CR1	200GBASE-DR1	1 pair 200GBASE-FR1		
400 Gb/s	200 Gb/s	400GAUI-2 C2C C2M	400GBASE-CR2	200GBASE-DR2			
800 Gb/s	200 Gb/s	800GAUI-4 C2C C2M	800GBASE-CR4	800GBASE-DR4	1. 800GBASE-DR4-2 2. 800GBASE-FR4		
	TBD					Over single SMF in each direction IMDD Coherent	Over single SMF in each direction IMDD Coherent
1.6 Tb/s	100 Gb/s	1.6TAUI-16 C2C C2M					
	200 Gb/s	1.6TAUI-8 C2C C2M	1.6TBASE-CR8	1.6TBASE-DR8	1.6TBASE-DR8-2		

Adopted baselines

Proposed Baselines (3dj)

Proposed Baselines (3df)

Observations

- Baseline proposals addressing P802.3dj objectives that were given in P802.3df prior to start of P802.3dj need to be re-presented in P802.3dj.
- Presentations containing baseline proposals – please make sure that “Baseline Proposal” is either in the title or on the Title Page.
- Baseline proposals
 - We are developing a standard to enable as many implementations as possible – NOT an implementation specification.
 - Editors need to be able to understand proposals to implement into drafts.
 - Please contact Chief Editor Matt Brown and request review of proposals for completeness.
 - When making FEC proposals, specifically identify the PMDs that will be supported.
- Based on conversations in which I have been involved, I still believe that terminology related to FEC is an issue.

MARK GUSTLIN

CHAIR , LOGIC & ARCHITECTURE TRACK

Summary Progress - Logic

	AUI		CU Cable	SMF 500m/2km	SMF 10km	SMF 40km
Ethernet Rate	PCS/FEC?	PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?	PCS/FEC/PMA?
200 Gb/s						
400 Gb/s				500m only		
800 Gb/s						
1.6 Tb/s	A few open issues					

Adopted baselines

Proposed Baselines

KENT LUSTED

ELECTRICAL TRACK

Jan 2023 Observations

- **1.6TAUI-16 C2M and C2C adopted**
- **First look at medium loss and higher loss AUI baselines.
More work needed**
 - https://www.ieee802.org/3/dj/public/23_01/23_0116/lit_3dj_01a_23_0116.pdf
 - https://www.ieee802.org/3/dj/public/23_01/23_0116/lit_3dj_02a_23_0116.pdf
 - Nothing on 200G/lane AUI C2C interfaces
- **CR is very quiet**
- **Backplane**
 - CSD impact?
 - objective target = March
- **AUI BER targets vs. Concatenated FEC options/modes**

MARK NOWELL

OPTICS TRACK

Key Optical Issues Going Forward

- Baseline proposals developing
 - 200G DR1, FR1
 - 400G DR2 DR2-2 presented awaiting new?
 - 800G DR4, DR4-2, FR4, (LR4/LR1), ER1
 - 1.6T DR8, DR8-2
- Technical considerations to address
 - Interplay between FEC choices & optical link budgets
 - This week's discussions have highlighted that very difficult to isolate one aspect and make a decision
 - E.g. Concatenated FEC A vs Concatenated FEC B is difficult without understanding all the other considerations
 - Multiple proposals vying for 10km objective
 - Multi-rate & reach interop not discussed yet despite SG discussion
 - Fiber specs