

IEEE P802.3dj Electrical Ad hoc

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“State of IEEE P802.3dj and Future Schedule”

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Foreword

- This presentation is
 1. Being given with our leadership “hat” on
 2. Our interpretation of the state of the Task Force based on
 - decisions made based on Task Force motions
 - strawpolls and discussions
 3. Evaluating task force schedule and factors that may influence how to maintain the adopted timeline

- Thanks to Adeo Ran, Cisco for his review and input.

State of IEEE P802.3dj

- Baselines have been proposed for adopted objectives (See Slide #4), except:
 - AUI C2C
 - BASE-CR
- For 800 GbE operation over 40km SMF
 - Two baselines using coherent have been submitted
 - A baseline using IMDD was anticipated but has not been submitted
- Only 1 baseline has been adopted
 - 1.6TAUI-16 C2C/C2M has been adopted
 - No 200 Gb/s or greater per lane-based PHYS or AUIs have been adopted
- Adopted timeline (See Slides #5 & 6)
 - Initial baselines due July 2023
- No decisions on adoption of KR objectives

- Leadership is monitoring this situation for potential project split

Summary Progress @ End of March 2023 Plenary

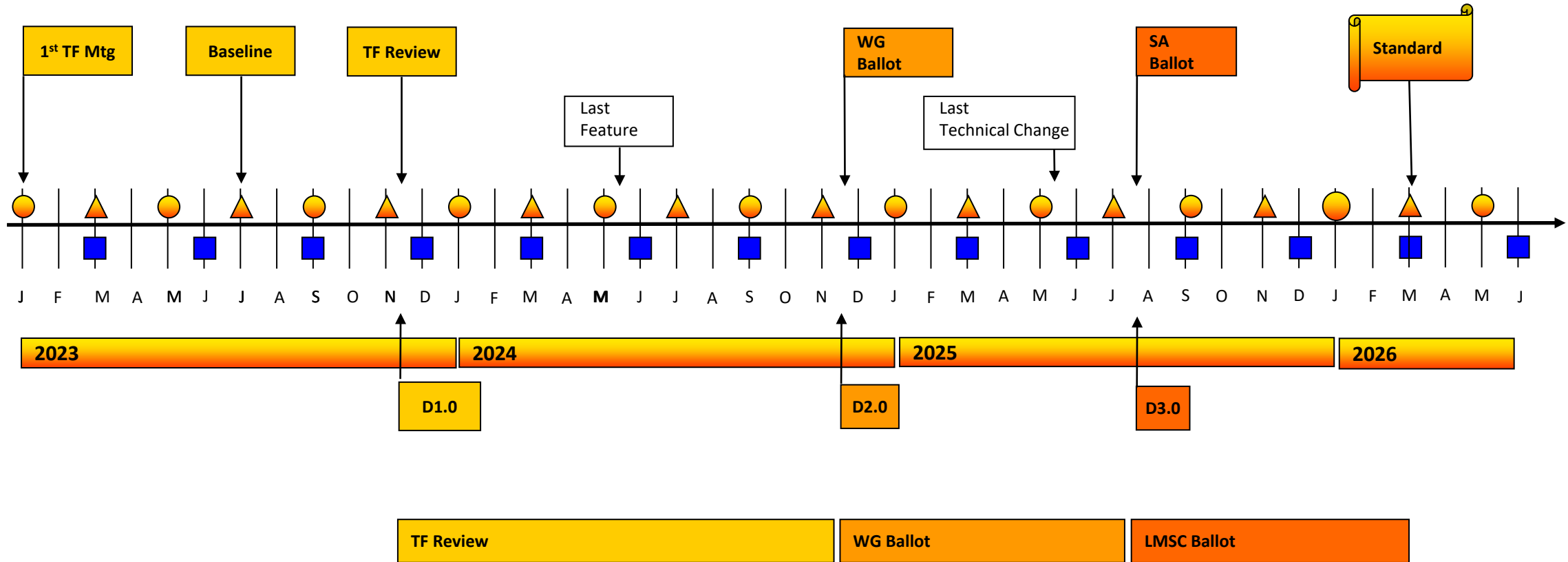
Ethernet Rate	Assumed Signaling Rate	AUI	Cu Cable	SMF 500m	SMF 2km	SMF 10km	SMF 40km
200 Gb/s	200 Gb/s	200GAUI-1 C2C C2M	200GBASE-CR1	200GBASE-DR1	200GBASE-FR1		
400 Gb/s	200 Gb/s	400GAUI-2 C2C C2M	400GBASE-CR2	400GBASE-DR2	400GBASE-DR2-2		
800 Gb/s	200 Gb/s	800GAUI-4 C2C C2M	800GBASE-CR4	800GBASE-DR4	1. 800GBASE-DR4-2 2. 800GBASE-FR4	800GBASE-LR4	
	800 Gb/s					800GBASE-LR1	
	TBD						Over single SMF in each direction (IMDD or 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

No Proposed Baselines

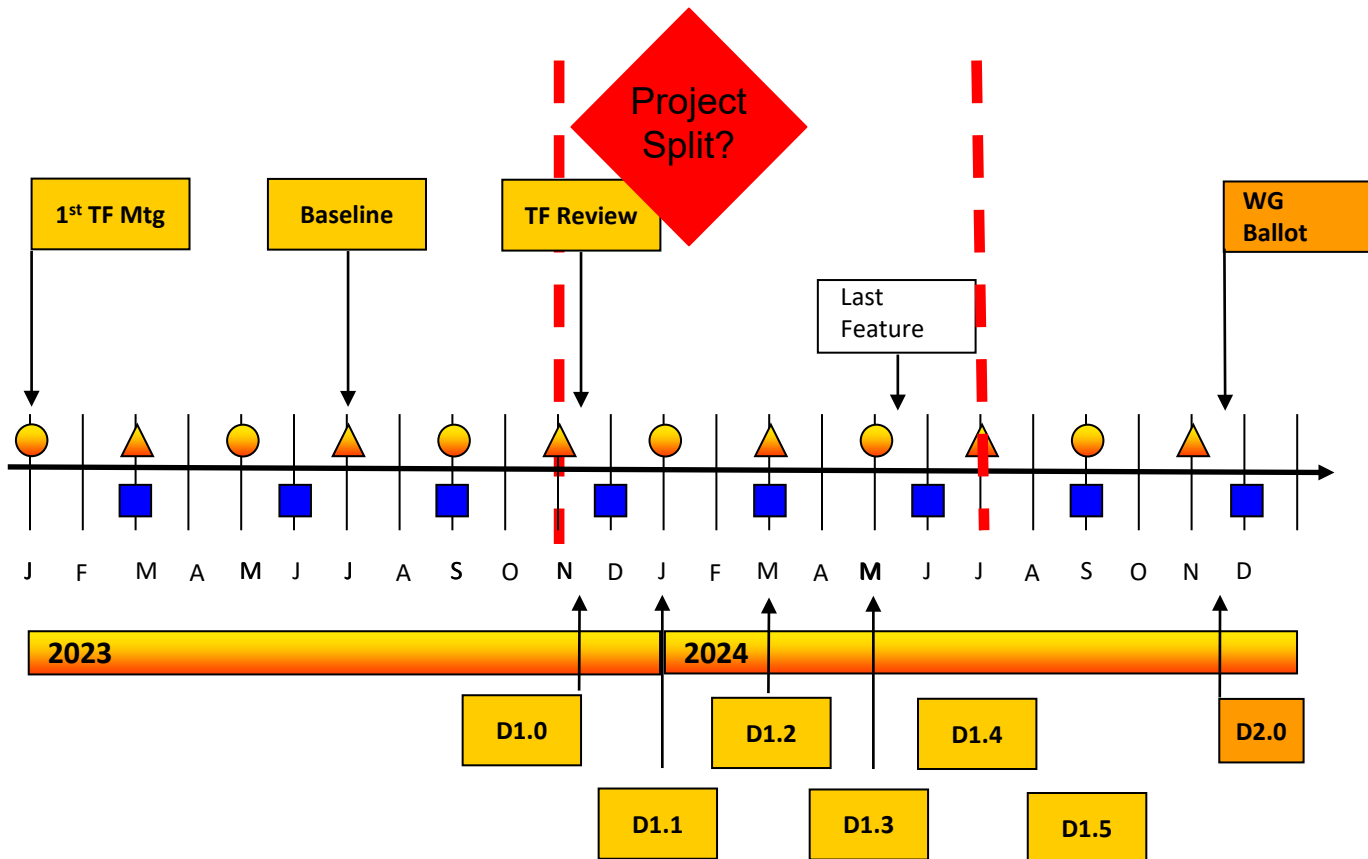
Adopted IEEE P802.3dj Timeline (16 Jan 2023)



Legend

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

Schedule Evaluation “Task Force Review”



- D1.0 needs adoption of “some” PHY objective baselines
 - All baselines adopted preferred, but not necessary.
- Timeline is Task Force review will go to D1.5 Sept 2024 and request **WG Ballot Nov 2024**.
- If some PHY baselines are not adopted by **Nov 2023**
 1. Proceed with draft with adopted baseline only
Or
 2. Initiate project split by **July 2024** to:
 - Meet project schedule for P802.3dj with adopted baselines
 - Further work on missing baselines happens in new project
- Don't forget P802.3cw and P802.3df!

Observations

- Limited baseline adoption at this point
- No baselines have been submitted for
 - Any AUI C2C interfaces (based on 200 Gb/s/lane)
 - Any –CR interfaces
- For 800 GbE operation over 40km SMF
 - Adopt a baseline using coherent optics?
- No decisions on adoption of KR objectives
- There are technical relationships between –KR / -CR / AUI C2C interfaces.
 - Does this explain lack of submission of baselines?

Going Forward

- To meet adopted timeline, we need to adopt baselines by **Nov 2023**
 - For KR
 - Strong support for objective(s) form, but insertion loss is still TBD
 - Objectives need to be adopted as soon as possible!
 - There is potential interplay between KR's insertion loss with CR and C2C
 - For CR
 - What is it?
 - Passive – See KR Above
 - Active – what is it?
 - For C2C
 - May leverage KR baselines, e.g., test methodologies, test points, specification parameters
 - For 800 GbE operation over 40 km SMF
 - Adopt baseline using coherent optics?
- Remember
 - We can change things with $\geq 75\%$ consensus in the future
 - We are a contribution driven organization, and people should not assume that things will just go forward
 - The task force is the “errand child” of the IEEE 802.3 Ethernet Working Group
 - We need to be technically complete by D1.5 when requesting WG Ballot