



802.3df

Leadership Observations: February meeting cycle

Mark Nowell – Cisco

John D'Ambrosia – Futurewei

802.3df February meetings

- 4 meetings, 16 Technical presentations
- Nearly all aspects of 802.3df project covered in presentations

This presentation is an attempt to make some **general observations** and **highlight/encourage some areas for contributions** in the next meeting cycle.

Architecture, Logic, FEC

Observations:

For 800 GbE based on 100 Gb/s per lane – two PCS options raised:

- Consistent with ETC approach
- Consistent with Clause 119

Need for more contributions and potential for consensus baseline proposals

For 800 GbE and 1.6 TbE based on 200 Gb/s per lane:

- Good insights into the problem space. Further contributions sought on all aspects
- FEC discussion on going

Need for more contributions

Optics

Observations:

- MMF (50m and 100m) - lack of presentations - need some
- 100 Gb/s based SMF (500m and 2km) -
 - Adopted baselines for “800G-DR” and “800G-DR8” in welch_3df_01a_0222
 - Strong support per straw poll to add 400 GbE SMF PMD objective for 4 lane 2km
- 200 Gb/s based SMF:
 - Start of technical exploration has begun. Encourage more contributions on all aspects
 - Advantages of PAM4 modulation discussed (vs PAM6)
- 800 GbE 10 km & 40 km
 - Only coherent modulation proposed as a potential solution so far.
 - Encourage more presentations here

Need for more contributions

Electrical

Observations

- 100 Gb/s signaling - lusted_3df_01a_220203 proposal to leverage existing 100 Gb/s electrical specifications
 - 800 Gb/s objectives - Strong support per straw poll for direction of baseline proposal
 - 1.6 Tb/s Objectives - Concern about direction of architecture and its impact
- 200 Gb/s signaling
 - Key debate on choice of electrical modulation
 - Multiple contributions on viability of PAM4 for AUI specifications
 - Contribution on advantages of PAM6 for copper cable specifications

Need for more contributions

lusted_3df_01a_220203 – recommend follow-up consensus baseline proposal

Summary

Big ticket items:

- PCS/FEC Architecture – holistic approach
- FEC performance/selections
- Reconciliation of co-existence of active (PAM4) vs passive (PAM6) in an architecture

Continued Progress expected:

- 200 Gb/s optical, 200 Gb/s electrical, coherent @ 800 GbE
 - Consensus proposal for 100 Gb/s electrical?
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Still needed:

- MMF PMDs
- Non-coherent 800 GbE 10 km & 40 km

On Radar:

- 1.6 TbE AUI & Optics

Leadership action:

- Prepare for 802.3 WG adoption of added objective (March 17th)

Reminders

- Feb 28th – request for presentation deadline for March meetings
- March Meetings:
 - 08 Mar 9am to 12pm, ET Agenda focus – Architecture / Logic, Part of Mar 2022 Plenary – Reg. fee req'd
 - 15 Mar 10am to 1pm, ET Part of Mar 2022 Plenary – Registration fee required
 - 16 Mar 10am to 1pm, ET Part of Mar 2022 Plenary – Registration fee required
 - 22 Mar 10am to 1pm, ET
 - 29 Mar 10am to 1pm, ET
- No Task Force meetings currently planned in April – will be replaced with ad hoc meetings
 - Three ad hocs: Logic/Arch, Optical, Electrical
 - Meeting announcements to be sent