

50G, 100G, 200G work partitioning

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IEEE 50 Gb/s & NG 100 Gb/s & 200 Gb/s Ethernet Ad hoc
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Scope of the work

Within the scope for the two new study groups, the potential work areas to be covered are:

50Gb/s Ethernet: Logic, BP, Cu, MMF, SMF

100Gb/s Ethernet: Logic, BP, Cu, MMF, SMF

200Gb/s Ethernet: Logic, BP, Cu, MMF, SMF

Technology dependencies and project leverage

P802.3bs provides a source of technology leverage for the study groups:

- Multi-lane architecture, FEC in PCS
- 50 Gb/s per lane signaling technologies
 - C2C
 - C2M
 - SMF
- 100 Gb/s per lane signaling technologies
 - SMF

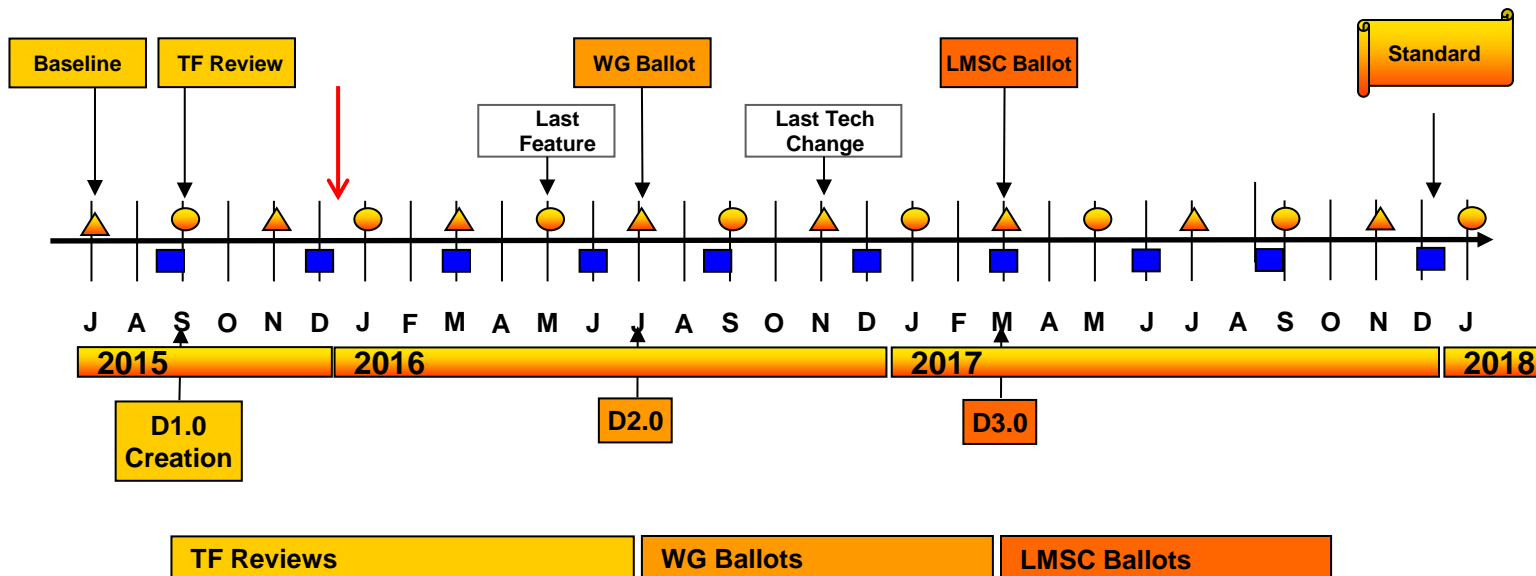
New technology areas to be developed

- 50 Gb/s per lane signaling technologies
 - Backplane
 - Twinax Cables
 - MMF

Partitioning goals

- Combine technical efforts that are closely related
- Avoid significant impact to P802.3bs schedule
- Avoid two projects that both depend on the other
- Simplify editorial and decision making challenges

IEEE P802.3bs 400GbE Adopted Timeline



Partitioning proposal part 1

- 50 Gb/s single lane work handled in “new TF”
- 200G work that leverages existing .3bs solutions added to .3bs (Logic, C2C, C2M, SMF)
- 200G work that depends on “new TF” added to “new TF”

Work area	50 Gb/s Ethernet	100 Gb/s Ethernet	200 Gb/s Ethernet
Logic	New TF		P802.3bs
C2C,C2M	New TF		P802.3bs
Backplane	New TF		New TF
Twinax	New TF		New TF
MMF	New TF		New TF
SMF	New TF		P802.3bs

What about the 100G work?

- New 50 Gb/s signaling technologies could not be in P802.3bs without impacting schedule.
 - Backplane
 - Twinax Cables
 - MMF
- Remaining items
 - Logic
 - Backwards compatibility with .3ba vs compatibility with new 50G lanes
 - CAUI-2 C2C
 - Issues with BER budget and FEC type
 - CAUI-2 C2M
 - Is this compelling with only 25G per lane PMDs?
 - SMF
 - Choice to be made between 50G per lane and 100G per lane
 - FEC choice, interaction between CAUI and optical specs

Partitioning proposal part 2

- Any 100 Gb/s extensions using BP, twinax and MMF handled in “new TF”
- 100 Gb/s work that leverages existing .3bs work (C2C, C2M, SMF) not likely to be compatible with P802.3bs schedule
- Would adding any 100G extensions for C2C, C2M, SMF make the 50G TF too onerous?

Work area	50 Gb/s Ethernet	100 Gb/s Ethernet	200 Gb/s Ethernet
Logic	New TF	As needed	P802.3bs
C2C,C2M	New TF	New TF*	P802.3bs
Backplane	New TF	New TF	New TF
Twinax	New TF	New TF	New TF
MMF	New TF	New TF	New TF
SMF	New TF	New TF*	P802.3bs

* Location to be discussed

Thanks!