MMF PMD's

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Extended Reach Parallel MMF Ad-Hoc
May 23, 2008

Task Force Objectives

- Support full-duplex operation only
- Preserve the 802.3 / Ethernet frame format utilizing the 802.3 MAC
- Preserve minimum and maximum FrameSize of current 802.3 standard
- Support a BER better than or equal to 10-12 at the MAC/PLS service interface
- Provide appropriate support for OTN
- Support a MAC data rate of 40 Gb/s
- Provide Physical Layer specifications which support 40 Gb/s operation over:
  - at least 10km on SMF
  - **at least 100m on OM3 MMF**
  - at least 10m over a copper cable assembly
  - at least 1m over a backplane
- Support a MAC data rate of 100 Gb/s
- Provide Physical Layer specifications which support 100 Gb/s operation over:
  - at least 40km on SMF
  - at least 10km on SMF
  - **at least 100m on OM3 MMF**
  - at least 10m over a copper cable assembly

Adopted by IEEE P802.3ba and approved by 802.3 at Mar 2008 Plenary

IEEE P802.3ba MMF Proposals

A. **pepeljugoski_01_0508**
   - "n"x10 solution, >100m OM3 ribbon fiber

B. **jewell_01_0508**
   - "n"x10 solution, extending reach beyond 100m on OM3 / OM4 ribbon fiber

C. **kropp_01_0508**
   - Over OM3 full duplex (dual fiber) fiber
   - Rate solution
     - 40 GbE – 2x20
     - 100GbE – 4x25

May Meeting (Option A)

Motion #6: Move that the 802.3ba Task Force adopt the parallel PMD proposal and tables on pages 6, 8, 9 and 10 of (pepeljugoski_01_0508) as the baseline proposal of the work of the task force towards writing the first draft standard for 40GBASE-SR4 and 100GBASE-SR10.

Moved by: Petar Pepeljugoski
Second by: John Petrilla

Technical ($\geq$75%)

Task Force Results: Yes: 85   No: 0   Abstain: 22
802.3 Results: Yes: 51   No: 0   Abstain: 7

Motion Passes

Option C

- **If TF chooses to do - distinct identity?**

- **How did 10 GbE do −SR and −LX4**

- **Review of 10 GbE objectives**
  - Provide Physical Layer specifications which support link distances of:
    - At least 300 m over installed MMF
    - At least 65 m over MMF

Option B

- **If TF chooses to do - distinct identity?**
  - ❑ If handled informatively – not an issue
  - ❑ If handled normatively - depends
    - One solution - modifying Option A so one solution for >100m and extended reaches?
    - Two solutions – Two PMDs?

Summary

- Option A meets related TF objectives
- If TF wants to also do Option C –
  - cleanest way to handle- add an objective per targeted rate
- If TF wants to also do Option B –
  - Depends on path TF chooses