

# Addressing 2km SMF Objective

IEEE P802.3bs 400GbE Task Force

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# July Plenary Recap

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- **Motion #5:** Move that 2km 400GbE SMF PMD will use a duplex fiber solution.
- Moved by: Pete Anslow
- Second by: Brian Holden
- Technical ( $\geq 75\%$ )
- Result: The motion was withdrawn by mover/second after a long discussion regarding the use of duplex or PSM fiber solutions to address 2km. The chair expressed reservations about potential distinct identity issue if 2km solutions based on both duplex and PSM fiber were developed, and wanted to consult with the working group chair.

# Observations

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- Individuals expressed support for a PSM approach to do 500m and beyond
- Argued that a 2km PSM approach would be distinct from a 2km Duplex approach
- However, project PHY / Reach objective is defined as:
  - Provide physical layer specifications which support link distances of:
    - At least 100 m over MMF
    - At least 500 m over SMF
    - At least 2 km over SMF
    - At least 10 km over SMF
- There is a “Distinct Identity” concern if 2 SMF PHYs (PSM / Duplex) are defined to support 2km with current objective wording

# Question

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- Is the development of a PSM approach to support 400GbE or 4x100GbE?
- Project PAR Scope states:
  - Define Ethernet Media Access Control (MAC) parameters, physical layer specifications, and management parameters for the transfer of Ethernet format frames at 400 Gb/s.
- 4x100GbE is not in scope

# Moving Forward

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- Individuals wanting to do 2km PSM and 2km duplex –
  - Option A – Change the objectives to remove “distinct identity concern (Note – 5C would need to be reviewed if adopted)
  - Option B – Leave objectives alone, develop 1 PHY for 500m and one for 2km, and do an engineered link via specifications for the 500m SMF PHY to enable a 2km solution
- Individuals wanting to do a 4x100GbE solution – new CFI – see 802.3bm.

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# Thank You!