802.3dk Objectives

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Teleconference

IEEE P802.3dk objectives

- Support full-duplex operation only
- Support bidirectional transmission over a single strand of single mode fiber
- Support MAC data rates of 100 Gb/s and 200 Gb/s
- For each data rate define PHYs for operation up to at least 10 km
- For each data rate define PHYs for operation up to at least 20 km
- For each data rate define PHYs for operation up to at least 40 km
- Preserve the Ethernet frame format utilizing the Ethernet MAC
- For 100 Gb/s operation, support a BER of better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent)
- For 200 Gb/s operation, support a BER of better than or equal to 10^{-13} at the MAC/PLS service interface (or the frame loss ratio equivalent)
- Support optional Energy-Efficient Ethernet operation
- Support silent start* operation to prevent bidirectional PHYs interfering with P2MP networks

* Silent start means that the upstream-facing PHY does not transmit unless a valid downstream signal is received. This prevents the bidirectional PHY from jamming transmission on the P2MP network in cases of unintentional connection