802.3cp Objectives

May 2018

Modified to remove out of scope material

IEEE P802.3cp objectives

- Support full-duplex operation only
- Support bidirectional transmission over a single strand of single mode fiber
- Preserve the Ethernet frame format utilizing the Ethernet MAC
- Support optional Energy-Efficient Ethernet operation
- Support a MAC data rate of 10 Gb/s and 25 Gb/s
- Support a BER of better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent)
- Support silent start* operation to prevent bidirectional PHYs interfering with P2MP networks

- Define single lane 10 Gb/s PHYs for operation over at least 10 km and at least 20 km
- Define single lane 25 Gb/s PHYs for operation over at least 10 km and at least 20 km

* 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