

# Possible Objectives for 10 Mb/s TSN Enhancements

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# Work item 2: Objectives for near-term

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- Is this as simple as:
  - Enable use of Clause 146 and Clause 147 point-to-point 10 Mb/s PHYs with Clause 99
- What about half-duplex 10BASE-T1S?
- Or do we have to list out relevant IEEE P802.3br objectives (<https://www.ieee802.org/3/br/8023-DMLT-SG-1309-Winkel-Objectives-v2.3.pdf>):
  1. Preserve the IEEE 802.3 Ethernet frame format at the MAC.
  2. Preserve minimum and maximum MAC frame size of the current IEEE 802.3 standard.
  3. Use the Clause 4/Annex 4A MAC without alteration.
  4. Require no changes to PHYs.
  5. Support full duplex operation only.
  6. Preserve MAC/PLS service interface.
  7. Do not degrade Mean Time to False Packet Acceptance (MTTFPA) at the MAC Service Interface.

# Potential Objectives

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1. Enable use of the 10BASE-T1L point-to-point full-duplex PHY with Clause 99 MACMERGE

## 2. Options

- A. No half duplex: Enable use of the 10BASE-T1S PHY with Clause 99 MACMERGE in full-duplex, point-to-point mode only.
- B. Include half duplex point-to-point: Enable use of the 10BASE-T1S PHY with Clause 99 MACMERGE in both half-duplex and full-duplex point-to-point modes.
- ~~C. Be vague: Enable use of the 10BASE-T1S PHY with Clause 99 MACMERGE.~~

3. Extra clarity of what we are not going to do:

Require no changes to PHYs, Clause 4/Annex 4A MAC, or MAC/PLS Interface

4. Open discussion of a potential TSSI-related objective