

Possible Objectives for 10 Mb/s TSN Enhancements

George Zimmerman

CME Consulting, Inc / ADI, APL Group, Cisco,
CommScope, Marvell, SenTekSe

Work item 2: Objectives for near-term

- 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.

Possible Objectives

- Is this as simple as:
 - Enable use of Clause 146 and Clause 147 point-to-point 10 Mb/s PHYs with Clause 99
- Possible Objectives
 - Enable use of Clause 146 and Clause 147 point-to-point full-duplex 10 Mb/s PHYs with Clause 99 MACMERGE
 - Require no changes to PHYs, Clause 4/Annex 4A MAC, or MAC/PLS Interface
 - What about half-duplex 10BASE-T1S?
 - Support full duplex operation only, OR:
 - Craft an additional objective to describe use with half-duplex point-to-point 10 Mb/s PHYs
- STRAW POLL: I support adding support for 10 Mb/s half-duplex point-to-point PHYs to clause 99. (Y:5 /N:10 /A:13)

Thoughts?

- (Discussion goes here)