IEEE 802.3 Enhancements to Point-to-Point Single Pair Ethernet (SPEP2P) Study Group Opening Report

George Zimmerman
CME Consulting/ADI, APL Group, Cisco,
CommScope, Marvell, SenTekSe
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IEEE 802.3 SPEP2P Study Group Study Group information

Study Group Organization

George Zimmerman, IEEE 802.3 SPEP2P Study Group Chair Jon Lewis/Bob Voss, IEEE 802.3 SPEP2P Study Group Secretary

Study Group charter

Develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Enhancements to point-to-point Single Pair Ethernet to:

- 1. Support Time-Sensitive Networking (TSN), and
- 2. Support increasing traffic and speed needs with long reach point-to-point higher-speed single-pair PHYs

Study Group web and reflector information

Reflector information: http://www.ieee802.org/3/SPEP2P/reflector.html

Home page: http://ieee802.org/3/SPEP2P/index.html

(No private area)

IEEE 802.3 SPEP2P Study Group Activities since March 2021 plenary

Met electronically in April, May, June

Major items discussed, decisions made and actions

Produced draft PAR, CSDs, Objectives for proposed 802.3de on MACMERGE & TSSI for new 10 Mbps SPE PHYs

Discussed inclusion of half-duplex point-to-point 10 Mbps SPE PHYs in objectives

Discussed use-cases and proposed objectives for next-speed long-reach 10 Mb/s SPE

Current status

Near-term (MACMERGE/TSSI for P2P SPE):

Completed draft PAR: https://mentor.ieee.org/802-ec/dcn/21/ec-21-0113-01-00EC-ieee-p802-3de-draft-par-responses.pdf

Completed draft CSD response: https://mentor.ieee.org/802-ec/dcn/21/ec-21-0112-00-00EC-ieee-p802-3de-draft-csd-responses.pdf

Draft objectives, ready for vote: https://www.ieee802.org/3/SPEP2P/draft objectives.pdf

Long-term (next-speed):

Documentation of use cases, discussion of reach & speed objectives

Preparation of mini-CFI for focused next-stage: https://www.ieee802.org/3/cfi/request_0721_1.html

IEEE 802.3 SPEP2P Study Group Meeting week plan

Goals for the meeting

MACMERGE and TSSI enhancements to include point-to-point SPE PHYs:

Complete PAR, CSDs, Objectives for consideration by 802.3 WG (proposed 802.3de)

'Next Speed' long-reach SPE

Continue discussion on speeds, reaches, and use cases

Hold 'mini-CFI' to continue work on long-term project of 'next-speed long-reach SPE'

Big ticket items

Whether to adopt an objective to add 10BASE-T1S half-duplex point-to-point to Clause 90 MACMERGE

Reach objective for next-speed SPE, and whether to include 1 Gbps next-speed SPE PHY in addition to 100 Mbps

Questions?

Thank you!