IEEE 802.3 10 Mb/s Single Twisted Pair Ethernet (10SPE) Study Group Opening Report

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IEEE 802.3 10SPE Study Group Study Group information

Study Group Organization

George Zimmerman, IEEE 802.3 10SPE Study Group Chair

Jon Lewis, IEEE 802.3 10SPE Study Group Secretary

Peter Jones, Architecture Ad Hoc Chair

Study Group charter:

to develop a PAR and CSD responses for 10Mb/s Single Twisted Pair Ethernet including optional power

Study Group web and reflector information

Reflector information: http://www.ieee802.org/3/10SPE/reflector.html Home page: http://ieee802.org/3/10SPE/index.html

IEEE 802.3 10SPE Study Group Activities since July 2016 plenary

Met during the September 2016 interim meeting series Held weekly ad hoc calls

Major items discussed, decisions made and actions

Discussed objectives, heard presentations on market potential, economic and technical feasibility

Adopted draft PAR text, draft CSD responses

Adopted several objectives

Presubmitted draft PAR and CSDs to 802 EC & Revcom

Established ad hoc meetings

Current status

Completed and presubmitted draft PAR and CSDs

PAR: https://mentor.ieee.org/802-ec/dcn/16/ec-16-0152-00-00EC-ieee-p802-3cg-draft-par.pdf

CSD|5C]: https://mentor.ieee.org/802-ec/dcn/16/ec-16-0153-00-00EC-ieee-p802-3cg-draft-csd.pdf

Partial list of objectives adopted

Objectives: http://www.ieee802.org/3/10SPE/objectives_10SPE_091316.pdf

Study Group-Adopted Objectives*

- 1. Preserve the IEEE 802.3/Ethernet frame format at the MAC client service interface.
- 2. Preserve minimum and maximum frame size of the current IEEE 802.3 standard.
- 3. Support a speed of 10 Mb/s at the MAC/PLS service interface.
- 4. Do not preclude meeting FCC and CISPR EMC requirements
- 5. Support for optional single-pair Auto-Negotiation
- 6. Support optional Energy Efficient Ethernet
- 7. Support 10 Mb/s operation in automotive environments (e.g. EMC, temperature) over single balanced twisted-pair cabling.
- 8. Support 10 Mb/s operation in industrial environments (e.g. EMC, temperature) over single balanced twisted-pair cabling.

* Objectives have not yet been before 802.3 WG for a vote

IEEE 802.3 10SPE Study Group Meeting week plan

Meeting all day Tuesday, plus Wednesday afternoon, with Thursday morning as backup

Tuesday 8am-5pm

(previously planned Tuesday evening session cancelled)

Wednesday 1pm-5pm (to consider motions and comments on PAR/CSDs)

Thursday 8am-11am

Goals for the meeting

Complete adoption of remaining objectives

Prepare for request to move to task force at 802.3 WG closing plenary

Review any comments and make adjustments to adopted objectives, CSD responses and PAR

Big ticket items

Adopt detail of PHY, link segment, and powering objectives

Questions?

Thank you!