Unconfirmed Meeting Minutes: Meeting of the IEEE 802.3 Greater than 10 Mb/s Long-Reach Single Pair Ethernet Study Group

October 27, 2021 Electronic Study Group meeting

Prepared by George Zimmerman

IEEE 802.3 Greater than 10 Mb/s Long-Reach Single Pair Ethernet Study Group meeting convened at 7:03AM PDT, Wednesday, October 27, 2021 by George Zimmerman, Chair of the IEEE 802.3 Greater than 10 Mb/s Long-Reach Single Pair Ethernet Study Group.

The meeting was held electronically via WebEx.

Attendance is listed in Appendix A

Administrative Matters

The Chair began with a review of the agenda deck: <u>https://www.ieee802.org/3/SPEP2P/public/agenda_3GT10M_01_10272021.pdf</u>

All presentations referenced in these minutes are located on the Study Group Meeting Materials site.

This being a teleconference meeting, the Chair asked that participants introduce themselves when speaking, in lieu of a formal roll call. There was no objection.

Mr. Zimmerman displayed the agenda and asked if there were any changes or additions.

The agenda was approved at 7:05am PDT by unanimous consent Minutes from the October 13 meeting were approved by unanimous consent (7:05am)

Members of the Press At 7:07am PDT the chair asked for any members of the press to identify themselves. None were heard.

The chair resumed with the agenda deck.

IEEE Patent Policy, Mr. Zimmerman read aloud the pre-par patent slides at 7:13 AM PDT.

Mr. Zimmerman continued review of the agenda deck, including the following items – a review of the participation policy, a review of the IEEE copyright policy, a review of the IEEE policy on dominance, and a review of the IEEE Standards process. There were no questions

Attendance, Mr. Zimmerman advised the group that the attendance would be taken from Webex.

At 7:27AM, presentations began.

Presentations and Discussion: **Presentations:** - Latency Objective for > 10 Mb/s Long-Reach SPE (Dayin Xu, Rockwell Automation).

The presenter discussed support for less than or equal to 1.5 microsecond latency at 100m reach to support latency-sensitive motor control applications at 100 Mb/s. The presenter also noted that the existing 1000BASE-T1 PHY would not meet these applications due to high latency. The presenter suggested that support for low latency at a shorter reach than the longest-reach operating mode would be sufficient, but that one phy type was desired. Questions of clarification and support, along with wordsmithing of a possible objective were heard. In regards to 1000 Mb/s, contributions addressing long reach at low latency were encouraged.

Discussion –

Discussion continued, modifying the draft objectives and CSD decks by consensus and identifying items that needed additional work and consensus building. The results are documented in the posted files:

https://www.ieee802.org/3/GT10MSPE/public/Objectives_10272021_out.pdf and

https://www.ieee802.org/3/GT10MSPE/public/CSD_3GT10M_01_10272021_out.pdf

Key points from the discussion follow:

- There was general agreement on adding a latency objective to support a low latency mode, and that the low latency mode could be on a more highly constrained link segment (e.g., lower latency, greater shielding) than the nominal long-reach link segment. Text was proposed, but discussion indicated more wordsmithing might be in order.
- Consideration on the reach of 100 Mb/s narrowed to a choice between 400m and 500m. Participants noted that 400m would align with reaches being proposed in other standards development groups. Email reflector discussion as well as contributions supporting which reach to choose were requested prior to the next meeting. While there were several views that technical feasibility on 400m had been supported, additional contributions were welcomed, and may be needed for 500m to be supported.
- It was noted that technical feasibility presentations from PHY SMEs were needed to support 1000 Mb/s. These should consider support for a particular reach and latency objective as well.

The Chair suggested that parties work offline and through the reflector to build up these points and build consensus. He also indicated possible votes on reach (between 400 & 500 Mb/s) and rates (whether to include 1000 Mb/s) at the next meeting.

Future Meetings

The next regular meeting will be held 10 November 2021 at 7am Pacific Time as part of the IEEE 802 Plenary week.

Having exhausted the time, the meeting was adjourned at 9:03 AM PDT.

First	Loot Novoo	A ffiliation	Mahav
Name	Last Name	Amiliation	webex
Tim	Baggett	Microchip	X
David	Brandt	Rockwell Automation	Х
Rory	Buchanan	OnSemi	Х
Steve	Carlson	HSD, Bosch, Ethernovia	Х
John	DeAndrea,	II-VI/Finisar	Х
Peter	Fischer,	BKS Kable-Service AG	Х
Matthias	Fritsche	HARTING	Х
Steffen	Graber	Pepperl+Fuchs	Х
Scott	Griffiths	Rockwell Automation	Х
Dave	Hess,	Cord Data	Х
Gergely	Huszak	Kone	Х
Andy	Jimenez	Wesco/Anixter	Х
Peter	Jones	Cisco	Х
Hans	Lackner,	QoSCom GmbH	Х
Wayne	Larsen	CommScope	Х
David	Law	НРЕ	Х
Terry	Little	FIT	Х
Valerie	Maguire	Siemon	Х
Harald	Mueller	Endress + Hauser	Х
Ralf	Peteranderl	Rosenberger	Х
Jason	Potterf	Cisco	Х
Dieter	Schicketanz	Reutling University	Х
Wensheng	Sun	Marvell	Х
Geoff	Thompson	GraCaSI S.A./self	Х
James	Withey	Fluke	Х
Dayin	Xu	Rockwell Automation	Х
,		CME Consulting/ADI, APL	
		Group, Cisco, CommScope,	
George	Zimmerman	Marvell, SenTekSe	Х