IEEE 802.3 NEA Ad hoc Meeting – IEEE 802.3 "Ethernet for AI" Assessment 27 Mar 2025 Electronic Meeting

Unapproved Meeting Minutes, prepared by John D'Ambrosia and Kent Lusted Session called to order at 10:00 am EDT (all times EDT), 27 Mar 2025 Meeting called to order by John D'Ambrosia, Chair - IEEE 802.3 "Ethernet for AI" Assessment

Chair made the meeting introduction. Chair appointed Kent Lusted as Recording Secretary for call.

Presentation #1	Agenda and General Information	
Presenter	John D'Ambrosia	
URL	https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0327/agenda_e4ai_a_250327.pdf	

Agenda – chair asked if there were any comments on the agenda. There were none. Chair asked if there were any objections to the agenda, there were none, and the agenda was considered approved.

Minutes – 27 Feb 2025 IEEE 802.3 NEA – Ethernet for AI Assessment Electronic Meeting https://www.ieee802.org/3/ad hoc/E4AI/public/25 0227/minutes e4ai 250227 unapproved.pdf

Chair asked if there were any modifications of the minutes needed. No one responded. Chair asked if there were any objections to the approval of the minutes. There were none, and the chair ruled the minutes were approved.

Chair reviewed IEEE SA Pre-PAR Patent Policy. See Slide #13.

Chair noted from Slide #16 and noted by participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including but not limited to the IEEE SA Copyright Policy.

Chair reviewed Slide #17 - Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct

Chair noted from Slide #18 Participants in the IEEE SA "individual process" shall act independently of others, including employers. By participating in standards activities using the "individual process", you are deemed to accept these requirements then you shall immediately cease any participation.

Chair reviewed IEEE 802.3 NEA "Ethernet for AI" Assessment Information on Slide #5. Chair reviewed Meeting Decorum, Ground Rules, and Important Bylaws, Rules, and References. See Slides #6-8. Chair noted background on NEA can be found in Appendix. Chair reviewed Liaisons on Slide #9.

Chair noted IEEE 802.3 NEA background information in Appendix. See Slides #20-24.

Presentation #2	Al Networking: What do scaleup and scaleout really mean for networking demand	
Presenters	Alan Weckel	
URL	https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0327/weckel_e4ai_01_250327.pdf	

Discussion

There were questions of clarification and discussion on the presentation.

Chair indicated that the liaison in Presentation #3 had just been received the morning of the call and would be posted to the IEEE 802.3 website (noted below).

Presentation #3	Liaison - E4AI Input from OCP
Presenters	Bijan Nowroozi
URL	https://www.ieee802.org/3/minutes/may25/incoming/OCP_E4AI_Vision_v02.pdf

Discussion

There were questions of clarification and discussion on the presentation.

During the discussion, it was suggested that higher 200Gb/s density might be a viable solution.

The Chair noted that this assessment activity had been presented to the IEEE 802.3 WG with an emphasis on >200 Gb/s signaling. The chair noted that requests for efforts targeting higher density 200 Gb/s would be the subject of a new NEA effort.

Presentation #4	Multi-Core Fiber (MCF) Option for 400G-PAM4 Data Center Connectivity	
Presenters	Rang-Chen (Ryan) Yu	
URL	https://www.ieee802.org/3/ad_hoc/E4AI/public/25_0327/yu_e4ai_01_250327.pdf	

Discussion

There were questions of clarification and discussion on the presentation. THe presenter suggested a potential IEEE 802.3 effort to standardize MCF. The chair noted that the standardization of media is not in the scope of 802.3

Prior to the start of Presentation #5, the chair reminded the group that Mr. Kocsis had contributed channel data that had been posted to the E4AI website. (see: <u>https://www.ieee802.org/3/ad_hoc/E4AI/public/channel/index.html</u>)

Prior to the start of the presentation, Mr. Kocsis noted that the presentation had been updated to '01a' with the addition of clarification notes.

 Presentation #5
 Channel Considerations for Beyond 200Gb/s per lane Electrical Interfaces

 Presenters
 Sam Kocsis

 URL
 https://www.ieee802.org/3/ad hoc/E4AI/public/25 0327/kocsis e4ai 01 250327.pdf

After the presentation was completed, the chair noted he had listed the channels on the website as "hypothetical" as there has been no discussion or agreement by the group on what actual target channels are, but will be useful for follow-up modulation analysis and channel discussions.

Discussion

Chair asked if there was objection to extending the meeting 10 minutes past the announced finish time to facilitate Q&A. No one objected.

There were questions of clarification and discussion on the presentation.

IMAT reminder.

Chair reviewed future meetings for all NEA activities. See Slide #10.

Chair noted that the agenda was complete and adjourned the meeting.

Meeting adjourned at 1:06 p.m.

IMAT Attendance

Name	Employer	Affiliation
Beauregard, Francois	Belden Canada ULC	belden
Bernier, Eric	Huawei Technologies Canada Co., Ltd.	Huawei Technologies Canada; Huawei Technologies Co., Ltd
Blais, Marc-Olivier		Prysmian Cables & Systems
Bowman, Kurtis		Advanced Micro Devices (AMD)
Brown, Matthew	Alphawave	Alphawave Semi
Bruckman, Leon	NVIDIA	NVIDIA
Calvin, John	Keysight Technologies	Keysight Technologies
Chang, Luke		Advanced Micro Devices (AMD)
Choudhury, Golam	OFS	OFS
Cicalini, Alberto		Qualcomm Incorporated; Qualcomm Technologies, Inc
Cox, lan		Broadcom Corporation
D'Ambrosia, John	Futurewei Technologies, U.S. Subsidiary of Huawei	Futurewei Technologies, U.S. Subsidiary of Huawei
Dawe, Piers J G	NVIDIA	Nvidia
Dudek, Michael	Marvell	Marvell
El-Chayeb, Ahmad	Keysight Technologies Inc	Keysight Technologies Inc
Galan, Jose	MaxLinear, Inc.	MaxLinear, Inc.
Ghiasi, Ali	Ghiasi Quantum LLC	Ghiasi Quantum LLC
Gore, Brandon	Samtec, Inc.	Samtec, Inc.
HE, MICHAEL		TeraHop Pte. Ltd.
He, Xiang	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Healey, Adam	Broadcom Inc.	Broadcom Inc.
Hofmeister, Ralph		Google
Hon, Kam Yan		Cisco Systems, Inc.
Hutchins, Jeff	Ranovus	Ranovus

Jackson, Kenneth	Sumitomo Electric Industries, LTD	Sumitomo Electric Industries, LTD
Johnson, John	Broadcom Corporation	Broadcom
Kabra, Lokesh	Synopsys, Inc.	Synopsys, Inc.
Kocsis, Sam	Amphenol Corporation	Amphenol Corporation
Kugel, Valery		Juniper Networks, Inc.
Lambert, Angela	Corning Incorporated	Corning Incorporated
Landry, Gary	Texas Instruments Inc.	Texas Instruments
Lapierre, Dominic		EXFO
Lee, Sylvanus	Leviton Manufacturing Co.	Leviton Manufacturing Co.
Lessard, Stephane		Ericsson AB
Li, Jieyu		China Mobile Communications Group; China Mobile Communications Group
Li, Jing	YOFC	YOFC
Li, Pei-Rong	MediaTek Inc.	MediaTek Inc.
Lusted, Kent	Synopsys, Inc.	Synopsys, Inc.
Maki, Jeffery	Juniper Networks, Inc.	Juniper Networks, Inc.
Malicoat, David	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components
Maniloff, Eric	Ciena Corporation	Ciena Corporation
Marques, Flavio	FURUKAWA ELECTRIC	Furukawa Electric
Mascitto, Marco		Infinera Corporation
Mellitz, Richard	Samtec, Inc.	Samtec, Inc.
Muhigana, Ernest	Lumentum LLC	Lumentum
Muller, Shimon	Enfabrica Corp.	Enfabrica
Murty, Ramana	Broadcom Inc.	Broadcom Inc.
Nicholl, Shawn	Advanced Micro Devices (AMD)	Xilinx
Noujeim, Leesa	Google	Google
Nowell, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.
Nowroozi, Bijan	Open Compute Project Foundation	Open Compute Project Foundation

Ofelt, David	Juniper Networks, Inc.	Juniper Networks, Inc.
Palkert, Thomas		Samtec, Inc., Macom
Panian, James		Qualcomm Incorporated
Parkholm, Ulf	Telefon AB LM Ericsson	Telefon AB LM Ericsson
Parsons, Earl	CommScope, Inc.	CommScope, Inc.
peng, semmy	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Piehler, David	Dell Technologies	Dell
QIU, BOTONG		Huawei Technologies Co., Ltd
Ramesh, Sridhar	MaxLinear	Maxlinear Inc
Sakai, Toshiaki	Socionext Inc.	Socionext
Shubochkin, Roman	OFS Fitel LLC	OFS
Simms, William	NVIDIA Corporation	NVIDIA Corporation
Sommers, Scott	Molex LLC	Molex Incorporated
Son, Yung Sung	Optomind Inc	Optomind Inc
TAN, SISI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd
Tartaglia, Antonio	Ericsson AB	Ericsson AB
tian, yuchi		СМСС
Torres, Luisma	Knowledge Development for Plastic Optical Fiber	KDPOF
Tracy, Nathan	TE Connectivity	TE Connectivity
Tran, Viet	Keysight Technologies	Keysight Technologies
Ulrichs, Ed	Intel	Intel; Intel Corporation
Wang, Haojie	China Mobile Communications Corporation (CMCC)	China Mobile
WANG, Xuebo		Huawei Technologies Co., Ltd
Weaver, James	Arista Networks	Arista Networks
Withey, James	Fluke Corporation	Fluke
Zhuang, Shu		Anritsu Company
Zhuang, Yan	Huawei Technologies Co., Ltd	Huawei