IEEE 802.3 NEA Ad hoc Meeting – IEEE 802.3 "Ethernet for AI" Assessment 23 Oct 2025 Electronic Meeting

Unapproved Meeting Minutes, prepared by John D'Ambrosia Session called to order at 10:00 am EDT (all times EDT), 23 Oct 2025

Meeting called to order by John D'Ambrosia, Chair - IEEE 802.3 NEA "Ethernet for AI" Assessment

Chair gave the meeting introduction.

Chair reminded everyone to sign into IMAT, which would be used for tracking attendance

Presentation #1 Agenda and General Information

Presenter John D'Ambrosia

URL <a href="https://www.ieee802.org/3/ad">https://www.ieee802.org/3/ad</a> hoc/E4AI/public/25 1023/agenda e4ai a 251023.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 by unanimous consent.

Minutes – 19 Aug 2025
 https://www.ieee802.org/3/ad hoc/E4AI/public/25 0819/minutes e4ai 250819 unapproved.pdf

Chair noted he had received feedback from Eugene Opsasnick that the statement about Slide #20 did not reflect the actual statement on the slide. The chair reviewed and noted that there was a cut/paste error. The statement should read as follows:

By participating in standards activities using the "individual process", you are deemed to accept these
requirements; if you are unable to satisfy these requirements then you shall immediately cease any
participation

Chair asked if there were any other modifications of the minutes needed. No one responded. Chair asked if there were any objections to the approval of the minutes with the noted modification. There were none, and the minutes were approved by unanimous consent.

Chair presented Slide #4 and noted that invitation to meeting had included a reminder for all meeting participants should to review the following IEEE SA policies prior to participation in the meeting teleconference:

- IEEE SA PREPAR policy
- IEEE SA Copyright Policy
- IEEE SA Participation Policy

Chair asked if anyone needed these policies reviewed. No one responded.

Chair proceeded to note the following -

- Chair reviewed IEEE SA Pre-PAR Patent Policy. See Slide #13.
- Chair noted from Slide #15 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; if you are unable to satisfy these requirements then you shall immediately cease any participation

Chair reviewed IEEE 802.3 NEA "Ethernet for AI" Assessment Information on Slides #5.

Chair reviewed Meeting Decorum, Ground Rules, and Important Bylaws, Rules, and References. See Slides #6-9. Chair noted background on NEA can be found in Appendix. Any individual with questions about the group should contact him or Jon Lewis, IEEE 802.3 NEA Chair.

Chair noted that future meetings for all NEA activities had not been planned yet, and future E4AI meetings would be announced. See Slide #10.

Chair reminded group to sign into IMAT.

Before getting started with presentations, chair noted that given the number of presentations, there would be limited time for Q&A following each presentation.

Presentation #2 Market Update on Al Networks

Presenters Lisa Huff

URL https://www.ieee802.org/3/ad hoc/E4AI/public/25 1023/huff e4ai 01a 251023.pdf

## Discussion

There were questions of clarification and discussion on the presentation.

It was noted that on Page 18, the forecast for 3.2T was for scale-out, not scale-up.

During discussion of Slide 14, it was observed that the title should be modified to "Power Capacity Requirements." The presentation will be updated (update noted above). Slide #6 will also be graphically updated to improve clarity of data.

Presentation #3 Coming Into Focus -- A 400 Gbps/lane Signaling Ethernet Project

Presenters Kent Lusted

URL https://www.ieee802.org/3/ad hoc/E4Al/public/25 1023/lusted e4ai 01a 251023.pdf

The chair noted that Mr. Lusted indicated he would be using E4AI Assessment for generating a CFI, and this would be presented to the WG in the opening report of the Nov Plenary. The chair also noted that the timeline presented on Slide #6 should be modified as the diamond marked "TF Start" should be changed to "TF Request." Mr. Lusted agreed and will provide an update (update noted above).

## Discussion

There were questions of clarification and discussion on the presentation.

The chair provided an IMAT reminder.

Presentation #4 Refined Test Points for 400 Gb/s CPC AI Use Cases

Presenters Rich Mellitz

URL https://www.ieee802.org/3/ad hoc/E4AI/public/25 1023/mellitz e4ai 01a 251023.pdf

## Discussion

There were questions of clarification and discussion on the presentation.

Slide #5 needs to be updated - "2 db" changed to "2". The author will provide an update (update noted above).

Presentation #5 A Preliminary Study of Modulation and FEC for 400 Gb/s per Lane NPC Channels

Presenters Xiang He

URL <a href="https://www.ieee802.org/3/ad">https://www.ieee802.org/3/ad</a> hoc/E4AI/public/25 1023/he e4ai 01 251023.pdf

Discussion

There were questions of clarification and discussions on the presentation.

Presentation #6 Feasibility study of 1.6T FR4 PAM4 transceivers

Presenters Maxim Kuschnerov

URL https://www.ieee802.org/3/ad hoc/E4AI/public/25 1023/kuschnerov e4ai 01 251023.pdf

Discussion

There were questions of clarification and discussions on the presentation.

Presentation #7 PAMXmY: Options for extending performance

Presenters Peter Graumann

URL https://www.ieee802.org/3/ad hoc/E4AI/public/25 1023/graumann e4ai 01 251023.pdf

Chair did

Discussion

There were questions of clarification and discussions on the presentation.

The chair reminded everyone that per the earlier conversation during Mr. Lusted's presentation, he would be informing the WG at the Nov plenary that a request to begin work on the "400 Gbps/lane Signaling Ethernet Project". The chair also noted that organizing meetings for the CFI and continuing general consensus building within the E4AI Assessment needed to be planned accordingly.

Meeting adjourned at 12:57 pm.

## **IMAT** Attendance

| Last Name  | First     | Affiliation                             | Employer  |
|------------|-----------|---|---|
|            | Name      |   |   |
| Akinwale   | Oluwafemi | Intel Corporation                       | Intel Corporation                                 |
| Alloin     | Laurent   | Ciena Corporation                       |   |
| Beauregard | Francois  | belden                                  | Belden Canada ULC                                 |
| Bovington  | Jock      | Cisco Systems, Inc.                     | Cisco Systems, Inc.                               |
| Bruckman   | Leon      | NVIDIA                                  | NVIDIA  |
| Choudhury  | Golam     | Lightera                                | Lightera  |
| D'Ambrosia | John      | Futurewei Technologies, U.S. Subsidiary | Futurewei Technologies, U.S. Subsidiary of Huawei |
|            |           | of Huawei                               |   |
| Dawe       | Piers J G | Nvidia                                  | NVIDIA  |
| Denton     | Scott     | Cisco Systems, Inc.                     |   |
| Dsilva     | Hansel    | Amphenol Corporation                    |   |
| Dudek      | Michael   | Marvell                                 | Marvell   |
| Galan      | Jose      | MaxLinear, Inc.                         | MaxLinear, Inc.                                   |
| Ghiasi     | Ali       | Ghiasi Quantum LLC, MARVELL             | Ghiasi Quantum LLC                                |
| Graumann   | Peter     | Microchip Technology, Inc.              |   |
| Не         | Xiang     | Huawei Technologies Co., Ltd            | Huawei Technologies Co., Ltd                      |

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|-------------|----------|--------------------------------------|---|
| Healey      | Adam     | Broadcom Inc.                        | Broadcom Inc.                             |
| Heck        | Howard   | Intel Corporation                    | TE Connectivity                           |
| Hon         | Kam Yan  | Cisco Systems, Inc.                  |   |
| Huang       | Kechao   | Huawei Technologies Co., Ltd         | Huawei Technologies Co., Ltd              |
| Huang       | Xuejue   | Intel Corporation                    |   |
| Isono       | Hideki   | Furukawa FITEL Optical Components    | Furukawa FITEL Optical Components Limited |
| Issenhuth   | Tom      | Huawei Technologies Co., Ltd         | Issenhuth Consulting, LLC                 |
| Jackson     | Kenneth  | Sumitomo Electric Industries, LTD    | Sumitomo Electric Industries, LTD         |
| Johnson     | John     | Broadcom                             | Broadcom Corporation                      |
| Jones       | Peter    | Cisco Systems, Inc.                  | Cisco Systems, Inc.                       |
| Kareti      | Upen     | Cisco Systems, Inc.                  | Cisco Systems, Inc.                       |
| Kaygusuz    | Ahmet    | Adhoc Teknoloji                      | Adhoc Teknoloji                           |
| Kocsis      | Sam      | Amphenol Corporation                 | Amphenol Corporation                      |
| Kugel       | Valery   | Juniper Networks, Inc.               |   |
| Kuschnerov  | Maxim    | Huawei Technologies Duesseldorf GmbH | Huawei Technologies Duesseldorf GmbH      |
| Lambrecht   | Frank    | Xilinx, Inc.                         | Xilinx, Inc.                              |
| Landry      | Gary     | Texas Instruments                    | Texas Instruments Inc.                    |
| LI          | ERGE     | Huawei Technologies Co., Ltd         | Huawei Technologies Co., Ltd              |
| Li          | Pei-Rong | MediaTek Inc.                        | MediaTek Inc.                             |
| Lusted      | Kent     | Synopsys, Inc.                       | Synopsys, Inc.                            |
| Maki        | Jeffery  | Juniper Networks, Inc.               | Juniper Networks, Inc.                    |
| Marques     | Flavio   | Furukawa Electric                    | Lightera                                  |
| Mellitz     | Richard  | Samtec, Inc.                         | Samtec, Inc.                              |
| mi          | guangcan | Huawei Technologies Co., Ltd         | Huawei Technologies Co., Ltd              |
| Mitcheltree | Tom      | US Conec, Ltd.                       | US Conec, Ltd.                            |
| Moorwood    | Charles  | Keysight Technologies                | Keysight Technologies                     |
| Muhigana    | Ernest   | Lumentum                             | MACOM Technology Solutions Holdings, Inc. |
| MURAKAMI    | YUKI     | 1Finity                              | FUJITSU                                   |
| Nering      | Raymond  | Cisco Systems, Inc.                  | Cisco Systems, Inc.                       |
| Nicholl     | Gary     | Cisco Systems, Inc.                  | Cisco Systems, Inc.                       |
| Nicholl     | Shawn    | Xilinx                               | Advanced Micro Devices (AMD)              |
| Nowell      | Mark     | Cisco Systems, Inc.                  | Cisco Systems, Inc.                       |
| Ofelt       | David    | Juniper Networks, Inc.               | Juniper Networks, Inc.                    |
| Opsasnick   | Eugene   | Broadcom Inc.                        | Broadcom Inc.                             |
| Pak         | Tim      | Foxconn Electronics Inc.             |   |
| Palkert     | Thomas   | Samtec, Inc., Macom                  |   |
| Panian      | James    | Qualcomm Incorporated                |   |
| Parsons     | Earl     | CommScope, Inc.                      | CommScope, Inc.                           |
| peng        | semmy    | Huawei Technologies Co., Ltd         | Huawei Technologies Co., Ltd              |
| Poleg       | Edo      | Huawei Technologies Co., Ltd         |   |
| Rabinovich  | Rick     | Keysight Technologies                | Keysight Technologies                     |
| Ramesh      | Sridhar  | Maxlinear Inc                        | MaxLinear                                 |
| Ran         | Adee     | Cisco Systems, Inc.                  | Cisco Systems, Inc.                       |
| Ren         | Hao      | Huawei Technologies Co., Ltd         | Huawei Technologies Co., Ltd              |
| Rodes       | Roberto  | Coherent                             | II-VI                                     |
| Royer       | Tyler    | Senko Advanced Components            | SENKO Advanced Components                 |
| Sakai       | Toshiaki | Socionext                            | Socionext Inc.                            |
| Savi        | Olindo   | Hubbell Incorporated                 | Hubbell Incorporated                      |
| Javi        | Oundo    | Trappett incorporated                | Trabbett incorporated                     |

| Shanbhag | Megha         | TE Connectivity                      | Тусо   |
|----------|---------------|--------------------------------------|--|
| Simms    | William       | NVIDIA Corporation                   | NVIDIA Corporation                             |
| Torres   | Luisma        | KD                                   | Knowledge Development for POF SL               |
| Tran     | Viet          | Keysight Technologies                | Keysight Technologies                          |
| Wang     | Haojie        | China Mobile                         | China Mobile Communications Corporation (CMCC) |
| Wang     | Xiaofeng      | Qualcomm Incorporated                | Qualcomm Incorporated                          |
| WANG     | Xuebo         | Huawei Technologies Co., Ltd         |  |
| Weaver   | James         | Arista Networks                      | Arista Networks                                |
| Welch    | Brian         | Cisco Systems, Inc.                  | Cisco Systems, Inc.                            |
| Wettlin  | Tom           | Huawei Technologies Duesseldorf GmbH |  |
| xu       | wenxiong      | HG genuine opto                      | HG Genuine                                     |
| Yu       | Rang-<br>Chen | Innolight Technology Corproation     | Innolight Technology Corproation               |
| Zhang    | Wei           | Broadcom Corporation                 | •  |
| Zou      | Congshi       | Huawei Technologies Co., Ltd         | Huawei Technologies Co., Ltd                   |