## IEEE P802.3dj $200 \mathrm{~Gb} / \mathrm{s}, 400 \mathrm{~Gb} / \mathrm{s}, 800 \mathrm{~Gb} / \mathrm{s}$, and $1.6 \mathrm{~Tb} / \mathrm{s}$ Ethernet Task Force Interim Meeting <br> Unapproved Meeting Minutes, prepared by John D’Ambrosia, Mark Nowell, and Kent Lusted

## 21 September 2023

September 2023 interim
IEEE P802.3dj Task Force May 2023 Meeting Task Force Page - https://www.ieee802.org/3/dj/public/23 0921/index.html

Session called to order at 9:00 a.m. eastern (all times eastern) by John D’Ambrosia, Chair of P802.3cw, P802.3dj and P802.3df Task Forces.

Chair reminded participants to declare their name and affiliation in the online meeting tool. Failure to declare would result in expulsion from the meeting.

Chair thanked participants that traveled to the September 2023 interim meeting in Brazil last week.

Chair noted that links to IMAT, DVL, and the IEEE policies were added to the meeting webpage for reference.

Chair noted that he expected to use DVL for straw poll and motions during the meeting.

Agenda:

| Title | Agenda and General Information |
| :--- | :--- |
| Presenters | John D'Ambrosia |
| URL | https://www.ieee802.org/3/dj/public/23 0921/agenda 3dj b 230921.pdf |

Chair welcomed everyone to the meeting.

Chair noted that he received an updated contribution from Kent Lusted with additional technical information. He asked if there was objection to hearing the updated presentation. No one responded.

Chair reminded participants to sign into IMAT for Task Force and IEEE 802.3 Working Group attendance.

Chair reviewed the agenda (Slide \#3) and noted presentation order. Chair noted that individuals should check the webpage for the latest version of each presentation. Chair noted that all of the presentation times were subject to change.

Chair asked if there were any objections to the agenda. There were none. The agenda was considered approved by unanimous consent.

Chair reviewed meeting decorum. (See Slide \#3) Chair asked if there were any members of the press present. No one responded.

Chair reviewed attendance. (See Slide \#4) Chair noted that Task Force meeting attendance would be through the IEEE Meeting Attendance (IMAT).

Chair reviewed the goals for the session (see slide \#10).
Chair reviewed ground rules. (See Slide \#11)
Chair reviewed the current state of the Task Force. (See Slide \#8.)
Chair reviewed voting in the task force. (See Slide \#9) Chair noted that the straw polls would use the online Zoom tool. Motions would be taken with the Direct Vote Live tool if there was not unanimous consent. Chair noted that he reserved the right to take informative straw polls by 802.3 WG voting membership.

Slide \#10 - Chair noted that the information regarding the IEEE SA Policies had been sent out via the Task Force reflector , and requested that individuals review the following IEEE SA policies prior to the interim meeting -

- IEEE SA Patent policy
- IEEE SA Copyright Policy
- IEEE SA Participation Policy and IEEE Code of Ethics

Chair asked if anyone needed to review the policies at that time - there were no requests to do so from in-person nor remote attendees.

Chair presented the third slide (See Slide \#28) of the IEEE SA Patent Policy slides. Chair did call for Potentially Essential Patents, and no one came forward.

Chair presented the second slide (See Slide \#33) of the IEEE SA Copyright Policy slides. Chair 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 reminded participants of the IEEE Code of Ethics and Conduct. (See slide \#36) He noted "All participants in IEEE-SA activities are expected to adhere to the core principles underlying the IEEE Code of Ethics and IEEE Code of Conduct"

Chair presented the second slide (See Slide \#37) of the IEEE SA Participation Policy slides. Chair noted - "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."

Vice Chair reminded participants to declare their affiliation in the online meeting tool. Failure to declare affiliation would result in expulsion from the meeting.

Presentation \#1

| Title | Reliability Analysis of In-Band signaling Message Fields for Type 2 PHYs |
| :--- | :--- |
| Presenters | Sridhar Ramseh |
| URL | https://www.ieee802.org/3/dj/public/23 0921/ramesh 3dj 01a 2309.pdf |

Author noted an error on slide 5 and slide 6 and would provide an updated version '01a'.
Questions were asked and answered.

Chair reminded participants to declare their affiliation in the meeting tool.

Presentation \#2

| Title | Reference: Transmitter Training Proposal for 256GFC |
| :--- | :--- |
| Presenters | Anil Mehta |
| URL | https://www.ieee802.org/3/di/public/23 09/mehta 3di 01 2309.pdf |

Questions were asked and answered.

Chair reminded participants to sign into IMAT for Task Force attendance.

## Presentation \#3

| Title | Observations on 200G/lane AUI BER Allocation for Type 1 and Type 2 PHYs |
| :--- | :--- |
| Presenters | Kent Lusted |
| URL | https://www.ieee802.org/3/di/public/23 0921/lusted 3di 01a 230921.pdf |

Questions were asked and answered.

## Straw Poll \#1:

I would support adopting C2C DER_0 $=0.67 \mathrm{E}-5$ and C2M DER_0 $=2 \mathrm{E}-5$ for the case when the AUI DER_0 is split across the C2M and the C2C inside of a Type 1 or Type 2 PHY per lusted_3dj_01a_230921, slide 7
(Pick one)
Results (all): Y: 57, N: 0, A: 13

Chair asked if there would be opposition to attempt the vote by unanimous consent. No one responded.

| Motion \#1 | Move to adopt C2C DER_0 = 0.67E-5 and C2M DER_0 = 2E-5 for the case when the AUI <br> DER_0 is split across the C2M and the C2C inside of a Type 1 or Type 2 PHY per <br> lusted_3dj_01a_230921, slide 7 |
| :--- | :--- |
| Technical (>= 75\%) |  |
| Moved by | Matt Brown |
| Second by | Tobey P.-R. Li |
| Results $\mathbf{8 0 2 . 3}$ (y/n/a) | passed by unanimous consent 10:49 a.m. |

Vice-Chair confirmed the unanimous consent.

Chair reminded participants to sign into IMAT for Task Force attendance.
break at 10:50 a.m. Resumed at 10:55 a.m.

Chair reminded participants to sign into IMAT for Task Force attendance.

## Straw Poll \#2:

I would support adopting C2M DER_0 = 2E-5 for the case when the AUI is only a C2M (no C2C) inside of a Type 1 or Type 2 PHY per choice A in lusted_3dj_01a_230921, slide 9
(Pick one)
Results (all): Y: 48, N: 7, A: 20

Chair asked if there would be opposition to attempt the vote by unanimous consent. There was opposition.

| Motion \#2 | Move to adopt C2M DER_0 = 2E-5 for the case when the AUI is only a C2M (no C2C) <br> inside of a Type 1 or Type 2 PHY per choice A in lusted_3dj_01a_230921, slide 9 |
| :--- | :--- |
| Technical (>= 75\%) |  |
| Moved by | Matt Brown |
| Second by | Ali Ghiasi |
| Results 802.3 (y/n/a) | Y: 46, n: 4, A: 9. passed 11:21 a.m. |

Vice-Chair confirmed the results.

The results of Motion \#2 were:

| Attendee | Vote |
| :--- | :--- |
| Adam Healey | Yes |
| Adee Ran | Yes |
| Ali Ghiasi | Yes |
| Andras De Koos | Yes |
| Angela Lambert | Ybstain |
| Ayal Shoval | Yes |
| Bo Zhang | No |
| Brian Welch | Yes |
| Cathy Liu | Abstain |
| Chul Soo Park | Yes |
| David Ofelt | Yes |
| Edward Sprague Bernier | Yes |
| Eric |  |


| Attendee | Vote |
| :---: | :---: |
| Eric Maniloff | Yes |
| Ernest Muhigana | Abstain |
| Gary Nicholl | Yes |
| Golam Choudhury | Yes |
| Guangcan Mi | Yes |
| Hao Ren | Yes |
| Hideki Isono | Abstain |
| James Weaver | Yes |
| Jeffery Maki | Yes |
| John Deandrea | Yes |
| John Johnson | Abstain |
| Kapil Shrikhande | Abstain |
| Kenneth Jackson | Yes |
| Kihong/Joshua Kim | Yes |
| Leon Bruckman | Yes |
| Mark Sikkink | Yes |
| Massimo Sorbara | Abstain |
| Matthew Brown | Yes |
| Megha Shanbhag | Yes |
| Michael Dudek | Yes |
| Michael Wingrove | Yes |
| Pei-Rong Li | Yes |
| Peter Del Vecchio | Yes |
| Peter Stassar | Yes |
| Piers J G Dawe | No |
| Pirooz Tooyserkani | Yes |


| Attendee | Vote |
| :---: | :---: |
| Richard Mellitz | Yes |
| Rick Rabinovich | Yes |
| Roberto Rodes | Yes |
| Shawn Nicholl | Yes |
| Shimon Muller | Yes |
| Shuang Yin | Yes |
| Taiji Kondo | Yes |
| Thomas Huber | Yes |
| Thomas Palkert | Yes |
| Tom Issenhuth | Yes |
| Toshiaki Sakai | Yes |
| Upen Kareti | No |
| William Simms | Yes |
| Xiang He | Yes |
| Yasuo Hidaka | No |
| Yi Sun | Yes |
| Yuefeng Cai | Yes |
| Yung Sung Son | Abstain |
| Zvi Rechtman | Abstain |

Chair reminded participants to sign into IMAT for Task Force attendance.

Meeting chair responsibilities were passed to Kent Lusted.

John D'Ambrosia asked the meeting chair if the co-authors could address points that he may overlook in the contribution. There was no objection.

Presentation \#4

| Title | Proposal - Support for Multiple FEC modes |
| :--- | :--- |
| Presenters | John D'Ambrosia |
| URL | https://www.ieee802.org/3/di/public/23 0921/dambrosia 3dj 01b 230921.pdf |

John D'Ambrosia speaking as TF Chair noted that people were privately asking him for people to show test data related to demonstrating technical feasibility for both approaches. Author noted that he would update slide 5 to indicate it was a "single PHY" and would provide an updated ' 01 b'.
Questions were asked and answered.

During the Q\&A of presentation \#4, Kent Lusted as meeting chair announced that he would be terminating the Q\&A at 12:30 p.m. to preserve meeting time for Straw Polls. The queue was terminated at 12:30 p.m.

Meeting chair responsibilities were passed back to John D'Ambrosia at 12:31 p.m.

## Straw Poll \#3

I would support the direction on slide \#5 of dambrosia_3dj_01b_230921
Results (all): Y: 15, N: 45, A: 23

Chair reminded participants to send requests for straw polls and motions to the Chair and the Recording Secretary in advance of the meeting.

Reviewed future meetings (see agenda slide \#12).

Reviewed future ad hocs (see agenda slide \#13)

Chair thanked participants for a successful meeting.

Chair noted the 3cw/3df/3dj Task Forces would meet during the IEEE 802 November Plenary. The exact schedule and agenda would be communicated later.

Chair noted that the meeting agenda was complete.

Meeting adjourned at 12:59 p.m.

## Attendees

| Name | Employer | Affiliation |
| :---: | :---: | :---: |
| Akinwale, Oluwafemi |  | Intel Corporation |
| BARSKY, greg |  | Broadcom Corporation |
| Bernier, Eric | Huawei Technologies Canada Co., Ltd. | Huawei Technologies Canada Co., Ltd. |
| Brown, Matthew | Alphawave | Alphawave |
| Bruckman, Leon | Huawei Technologies Co., Ltd | Huawei Technologies Co., Ltd |
| Cai, Yuefeng | Huawei Technologies Co., Ltd | Huawei Technologies Co., Ltd |
| Calvin, John | Keysight Technologies | Keysight Technologies |
| Champion, Bruce | TE Connectivity | TE Connectivity |
| Chappell, Neveia | Keysight Technologies | Keysight Technologies |
| Chen, Chan | Self Employed | Independent/AOI |
| Choudhury, Golam | OFS | OFS |
| Cox, Ian |  | 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 |
| Deandrea, John | Finisar Corporation | Finisar Corporation |
| de Koos, Andras | Microchip Technology Inc | Microchip Technology, Inc. |
| Del Vecchio, Peter |  | Broadcom Corporation |
| Dudek, Michael | Marvell | Marvell |
| Estes, David | Spirent Communications | Spirent Communications |
| Ghiasi, Ali | Ghiasi Quantum LLC | Ghiasi Quantum LLC; Marvell Semiconductor, Inc. |
| Gui, Tao |  | Huawei Technologies Co., Ltd |
| Gustlin, Mark | Cisco Systems, Inc. | Cisco Systems, Inc. |
| He, Xiang | Huawei Technologies Co., Ltd | Huawei Technologies Co., Ltd |
| Healey, Adam | Broadcom Inc. | Broadcom Inc. |


| Name | Employer | Affiliation |
| :---: | :---: | :---: |
| Hidaka, Yasuo | Credo Semiconductor | Credo Semiconductor |
| Huang, Kechao | Huawei Technologies Co., Ltd | Huawei Technologies Co., Ltd |
| Huang, Xuejue |  | Intel Corporation |
| Huber, Thomas | Nokia | Nokia |
| Hutchins, Jeff | Ranovus | Ranovus |
| Irwin, Scott | MoSys, Inc. | Peraso Technologies Incorporated |
| Isono, Hideki | Fujitsu Optical Components Limited | Fujitsu Optical Components Limited |
| Issenhuth, Tom | Issenhuth Consulting, LLC | Huawei Technologies Co., Ltd |
| Jackson, Kenneth | Sumitomo Electric Industries, LTD | Sumitomo Electric Industries, LTD |
| Jiang, Chenhui | Sicoya | Sicoya |
| Johnson, John | Broadcom Corporation | Broadcom Corporation |
| Kareti, Upen | Cisco Systems, Inc. | Cisco Systems, Inc. |
| Kim, Inho | MaxLinear | MaxLinear |
| Kim, Kihong/Joshua | Hirose Electric (USA), Inc. | Hirose Electric (USA), Inc. |
| Kimber, Eric | Semtech Ltd | Semtech Ltd |
| Kocsis, Sam | Amphenol Corporation | Amphenol Corporation |
| Kondo, Taiji | MegaChips Corporation | Dexerials Corporation |
| Lambert, Angela | Corning Incorporated | Corning Incorporated |
| Li, Mike-Peng | Intel | Intel |
| Li, Pei-Rong | MediaTek Inc. | MediaTek Inc. |
| Lin, Youxi | Huawei Technologies Duesseldorf GmbH | Huawei Technologies Co., Ltd |
| Liu, Cathy | Broadcom Corporation | Broadcom Corporation |
| Lusted, Kent | Intel | Intel |
| 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 |


| Name | Employer | Affiliation |
| :---: | :---: | :---: |
| Maruyama, Takuto | Mitsubishi Electric US, Inc | Mitsubishi Electric US, Inc |
| Mellitz, Richard | Samtec, Inc. | Samtec, Inc. |
| mi, guangcan | Huawei Technologies Co., Ltd | Huawei Technologies Co., Ltd |
| Moorwood, Charles | Keysight Technologies | Keysight Technologies |
| Muhigana, Ernest |  | Lumentum |
| Muller, Shimon | Enfabrica Corp. | Enfabrica |
| MURAKAMI, YUKI | FUJITSU LIMITED | Fujitsu Limited |
| Murty, Ramana | Broadcom Inc. | Broadcom Corporation |
| Muth, Karlheinz | Broadcom Corporation | Broadcom Corporation |
| Nering, Raymond | Cisco Systems, Inc. | Cisco Systems, Inc. |
| Nicholl, Shawn | Advanced Micro Devices (AMD) | Advanced Micro Devices (AMD) |
| Ninomiya, Takuya |  | Senko Advanced Components |
| Nowell, Mark | Cisco Systems, Inc. | Cisco Systems, Inc. |
| Ofelt, David | Juniper Networks, Inc. | Juniper Networks, Inc. |
| Opsasnick, Eugene | Broadcom Inc. | Broadcom Inc. |
| Palkert, Thomas | Macom,\ Samtec | Samtec-Macom |
| PARK, CHUL SOO | Juniper Networks Inc. | Juniper Networks, Inc. |
| Parthasarathy, Vasu | Broadcom Corporation | Broadcom Corporation |
| Patra, lenin | Marvell Semiconductor, Inc. | Marvell Semiconductor, Inc. |
| Rabinovich, Rick | Keysight Technologies | Keysight Technologies |
| Ramesh, Sridhar | MaxLinear | MAXLINEAR INC |
| Ran, Adee | Cisco Systems, Inc. | Cisco Systems, Inc. |
| Rechtman, Zvi | NVIDIA | NVIDIA |
| Ren, Hao | Huawei Technologies Co., Ltd | Huawei Technologies Co., Ltd |
| Rodes, Roberto | II-VI | II-VI |
| Sakai, Toshiaki | Socionext Inc. | socionext |
| Savi, Olindo | Hubbell Incorporated | Hubbell Incorporated |


| Name | Employer | Affiliation |
| :--- | :--- | :--- |
| Sekel, Steve |  | Wilder Technologies |
| Shanbhag, Megha | Tyco | TE Connectivity |
| Shoval, Ayal | Synopsys, Inc. | Synopsys, Inc. |
| Sikkink, Mark | Hewlett Packard Enterprise | Hewlett Packard Enterprise |
| Simms, William | NVIDIA Corporation | NVIDIA Corporation |
| Son, Yung Sung | Optomind Inc | Optomind Inc |
| Sorbara, Massimo | GLOBALFOUNDRIES | GLOBALFOUNDIRES |
| Sprague, Edward | Infinera Corporation | Infinera Corporation |
| Stassar, Peter | Huawei Technologies Co., Ltd | Huawei Technologies Co., Ltd |
| Sun, Yi |  | OFS |
| Tooyserkani, Pirooz | Cisco Systems, Inc. | TE Connectivity |
| Tracy, Nathan | TE Connectivity | Keysight Technologies |
| Tran, Viet | Keysight Technologies | Huawei Technologies Co., Ltd |
| Wang, Ruoxu | Huawei Technologies Co., Ltd | Arista Networks |
| Weaver, James | Arista Networks | Luxtera |
| Welch, Brian | Cisco Systems, Inc. | Goona Corporation |
| Wingrove, Michael | Ciena Corporation | Marvell Technology, Inc |
| Yin, Shuang |  |  |
| Zhang, Bo |  |  |

