

Meeting Minutes: Joint Meeting of IEEE P802.3da and 802.3dg Task Forces

September 16/17/18, 2024
Hybrid Interim meeting
Prepared by Peter Jones
All times in Hamburg time (CEST).

IEEE P802.3da/802.3dg SPMD Task Force meeting was convened at 8:02am, September 16, 2024, by the 802.3dg chair, Mr Zimmerman accompanied by the 802.3da chair Mr Jones.

The meeting was held electronically via WebEx.

Attendance is listed in Appendix A

All presentations referenced in these minutes are located on the Task Force Meeting Materials site under the public pages for this meeting (https://www.ieee802.org/3/dg/public/May_2024/index.htm, <https://www.ieee802.org/3/da/public/0924/index.htm>).

Peter Jones was appointed as recording secretary for the meeting.

The Chair displayed and proceeded to review the agenda in https://www.ieee802.org/3/dg/public/May_2024/agenda_3dg_01a_20240916.pdf

The agenda was approved at 8:06am by unanimous consent.

The minutes from 802.3dg July 2024 (https://www.ieee802.org/3/dg/public/May_2024/Unconfirmed_minutes_3dg_07152024.pdf) were approved at 8:07am by unanimous consent.

The minutes from 802.3da July 2024 (https://www.ieee802.org/3/da/public/0724/spmd_TF_minutes_00b_july_2024.pdf) were approved at 8:07am by unanimous consent.

Members of the Press, At 8:08am the chair asked for any press members to identify themselves. None heard.

The Chair resumed 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, The Chair advised the group that the attendance would be taken from Webex and IMAT.

IEEE Patent Policy, The Chair read aloud the patent slides at 8:32am. The call for patents was made at 8:34am and **none** responded.

The slides on SA Copyright Policy as well as the Individual Participant Behavior slides were presented at starting at 8:35am.

The Chair concluded review of the agenda presentation at 8:46am.

802.3da Presentations and Discussion:

- At 8:47am the Chair moved on to the 802.3.da Editors Report (https://www.ieee802.org/3/da/public/0924/zimmerman_maguire_3da_01a_0924.pdf) given by Mr Zimmerman.

8:51am: Motion#1:

- Move to consider 2 late comments received as in Late_802d3da_d1p4_Page.pdf
- M: Valerie Maguire
- S: George Zimmerman
- Passes by voice without opposition.

802.3da Comment Resolution:

- At 8:53am the Chair moved on to Comment Resolution led by the Technical Editor. All drafts and comment files are available at <https://www.ieee802.org/3/da/comments/index.html>.
- During Comment resolution the group heard and discussed the following presentations related to comments:
 - Presentation: Clause 169 DV/DT and DI/DT- 8:54am
 - Presented by Michael Paul, Analog Devices
 - https://www.ieee802.org/3/da/public/0924/paul_02_da_202400916_v1.pdf
 - Presentation: Clause 30 MPoE BASELINE – 9:18am
 - Overview by Peter Jones, Cisco Systems, Inc.
 - https://www.ieee802.org/3/da/public/0924/clause%2030-MPoE%20090924%20peter_jones.pdf
 - Presentation: MPD State Machine Edits – 2:15pm
 - Presented by Michael Paul, Analog Devices and George Zimmerman, CME Consulting
 - https://www.ieee802.org/3/da/public/0924/paul_zimmerman_01_da_20240916_v1.pdf

Meeting break at 10:01am

Meeting resumes with 802.3dg at 10:19am.

Presentation: Editor's Report

Presented by Yan Zhuang, Huawei Technologies

- https://www.ieee802.org/3/dg/public/May_2024/zhuang_3dg_01_0924.pdf
- Presentation began at 10:20am
- Questions asked and answered

Presentation: Architectural choices for 802.3dg

Presented by George Zimmerman (as individual)

- https://www.ieee802.org/3/dg/public/May_2024/zimmerman_3dg_01_20240916.pdf
- Presentation began at 10:32am
- Questions asked and answered
- Completed 11:06am

Presentation: OAM for 100Mb/s Long Reach

Presented by William Lo, Axonne

- https://www.ieee802.org/3/dg/public/May_2024/Lo_3dg_01_0924.pdf
- Presentation began at 11:08am
- Questions asked and answered

Presentation: Legacy MAC Interfaces for 10/100/1000 PHYs and Link Fault Conditions

Presented by Brian Murray, Analog Devices

- https://www.ieee802.org/3/dg/public/May_2024/Murray_3dg_01_09162024.pdf
- Presentation began at 11:44am
- Questions asked and answered

Meeting break for lunch at ~12:15PM and will resume with 802.3da comment resolution at 1:15PM.

Meeting resumes with 802.3da comment resolution at 1:18PM.

Meeting break at 3:15pm.

Meeting resumes with 802.3dg work at 3:35pm.

Presentation: Industrial Ethernet requirements for latency the new 100BASE-T1L standard

Presented by Guenter Steindl, Siemens

- https://www.ieee802.org/3/dg/public/May_2024/new-steindl-PHY-delay-requirements-0924-v01.pdf
- Presentation began at 3:37pm.
- Questions asked and answered

Presentation: Proposal for a 100BASE-T1L PCS

Presented by Brian Murray, Analog Devices for Jacobo Riesco, Analog Devices

- https://www.ieee802.org/3/dg/public/May_2024/Riesco_3dg_01a_09172024.pdf
- Presentation began at 4:25pm
- Questions asked and answered

Presentations and discussion concluded 5:35pm.

Meeting recessed at 5:39pm, will resume at 8:04am.

Meeting resumed at 8:00am on September 17, 2024

Mr Jones covers administrivia.

802.3da Comment Resolution:

- At 8:53am the group moved on to 802.3da Comment Resolution led by the Technical Editor. All drafts and comment files are available at <https://www.ieee802.org/3/da/comments/index.html>.
- IMAT break at 9:32am.
- At 9:38am 802.3da Comment Resolution was recessed.

Mr Jones leads discussion on timeline and other administrivia.

9:43am Motion #2

- Move to accept version 6 as the updated IEEE P802.3da timeline.
- M: James Withey
- S: Gergely Huszak
- Passes by voice without opposition.

After the new timeline was approved, questions were asked about the heading in the date column and it was pointed out that the pre-D1.0 times were off by a cycle. This was corrected by deleting these dates from the table. This lead to motion 3:

9:53am Motion #3

- Move to accept edits to timeline V6 as presented in timelineV6.pdf (<https://www.ieee802.org/3/da/public/0924/timelineV6.pdf>) as the updated IEEE P802.3da timeline
- M: Gergely Huszak
- S: George Zimmerman
- Passes by voice without opposition.

Meeting recessed at 9:55am, will resume at 10:30am.

802.3dg resumed at 10:32am with 802.3dg

Presentation: 100BASE-T1L PCS Transmit Scrambler

Presented by Tingting Zhang, Huawei Technologies

- https://www.ieee802.org/3/dg/public/May_2024/Tingting_3dg_01_17_09_2024.pdf
- Presentation began at 10:35am
- Questions asked and answered

Presentation: 100BASE-T1L PMA Training

Presented by Tingting Zhang, Huawei Technologies

- https://www.ieee802.org/3/dg/public/May_2024/Tingting_3dg_02_16_09_2024.pdf
- Presentation began at 10:46am
- Questions asked and answered

11:35am Mr Jones and Mr Zimmerman lead discussion on ways to progress proposals to achieve consensus.

Presentation: Power over Data Lines - Hybrid device support

Presented by Harald Mueller, Endress+Hauser

- https://www.ieee802.org/3/dg/public/May_2024/mueller_802.3dg_01_2024-09-13.pdf
- Presentation began at 11:38am
- Questions asked and answered

Meeting recessed at 12:10pm, will resume at 1:15pm with 802.3da.

Meeting resumed at 1:19pm with 802.3da comment resolution

802.3da Comment Resolution:

1:22pm Motion #4

- Move to reopen comment 105.
 - M: Michael Paul
 - S: George Zimmerman
 - Passes by voice without opposition
- During Comment resolution the group heard and discussed the following presentations related to comments:
 - Presentation: Clause 169 DV/DT and DI/DT V2 - 1:33pm
 - Presented by Michael Paul, Analog Devices
 - https://www.ieee802.org/3/da/public/0924/paul_02_da_202400916_v2.pdf
 - Presentation: Clause 169 BASELINE -
 - Presented by Michael Paul, Analog Devices)
 - <https://www.ieee802.org/3/da/public/0924/8023-169t4.pdf>

1:51pm Mr Jones charts 802.3da AdHoc led by Michael Paul to investigate the allowed voltage slew rate for MPSEs.

Having resolved all comments, 802.3da Comment Resolution concluded at 1:56pm

1:57pm Motion #5

- Move that the editors create IEEE P802.3da Draft 1.5 by incorporating the comment resolutions against Draft 1.4 and start a review cycle
- M: Valery Maguire
- S: Michael Paul
- Technical (>75%)
- Passes by unanimous consent.

Mr Jones leads discussion on timing of Draft 1.5 review cycle and progress towards Working Group ballot.

802.3da completes its agenda at 2:08pm.

The group moves onto 802.3dg work at 2:08pm.

Mr Zimmerman reviews 802.3dg progress at this meeting, and what remains to complete its agenda.

2:13pm - Mr Zimmerman charts an ad hoc to develop proposals and recommendations for integrating APL power and clause 104 power as part of 802.3dg. Mr Zimmerman will announce the AdHoc chair on the reflector in the near future. (Note – ad hoc chair announced as Mary Sue Haydt)

Freeform discussion regarding proposed straw polls requested by Tingting Zhang.

Straw Polls:

2:42pm Straw Poll #1

Requested by Tingting Zhang

- I support to use a 33-bit side-stream scrambler for each 8b6T octet during data mode. The uncorrelated scrambler bits are generated with the polynomial on Slide 4 and Slide 5 of [Tingting_3dg_01a_17_09_2024.pdf](#).
- Y: 5
- N: 12
- A: 18

2:48pm Straw Poll #2

Requested by Tingting Zhang

- I support to use a 33-bit side-stream scrambler for 100BASE-T1L PMA training.
- Y: 23
- N: 0
- A: 19

3:00pm Straw Poll #3

Requested by George Zimmerman

- I support using a 33-bit side-stream scrambler for each generated 8b6T octet during data mode. The uncorrelated scrambler bits are generated with the polynomial on Slide 7 and Slide 8 of Riesco_3dg_01a_09172024.pdf
- Y: 20
- N: 0
- A: 22

3:05pm IMAT time

3:14pm Straw Poll #4

Requested by Tingting Zhang

- I support to use a 100BASE-T1L PMA training frame composed of 16 partial PHY frames with an InfoField embedded in the last partial PHY frame.
- Y: 19
- N: 0
- A: 23

Meeting recessed at 3:20pm, will resume at 3:50pm with 802.3dg.

Meeting resumed at 3:50pm with 802.3dg technical discussion

- Presentation: Proposals to Adopt for the PCS for 100BASE-T1L – 3:56pm
 - Presented by Brian Murray for himself and Tingting Zhang.
 - https://www.ieee802.org/3/dg/public/May_2024/Murray_3dg_02_09162024.pdf

4:11pm Motion #6

- Move that the IEEE P802.3dg Task Force adopt slides 2, 3, and 4 of murray_3dg_02_09162024.pdf
- M: Brian Murray
- S: Tingting Zhang
- Technical (>75%) passes without objection.

Mr Zimmerman led a discussion of the P802.3dg timeline as shown in the agenda deck.

Mr Jones and Mr Zimmerman led the discussion of future meetings for both IEEE P802.3da and P802.3dg

- Next meeting(s) will be in the week of November 11 - 15, 2024 at the IEEE 802 plenary in Vancouver, BC
- 802.3dg
 - Review <https://www.ieee802.org/3/dg/public/presentproc.html> for presentation requirements including timing.
 - NOTE WELL: Late presentations will require a motion from the TF to be heard.
- 802.3da
 - 802.3da Chair will announce timing for the Draft 1.5 review period on the email reflector.

4:42pm Motion #7

- Adopt 802.3dg Revised2 Timeline as shown on slide 40 of agenda_3dg_01_240916.pdf
- M: Chad Jones
- S: Valerie Maguire
- Procedural (> 50%)
- Motion passes without objection.

Mr Zimmerman called for any other topics to discuss. Mr Jones discussed timing of the 802.3da/802.3dg joint session September 18, 2024. Mr Jones announced that if 802.3da/802.3dg completes in AM1, he will run 802.3 PDCC meeting in room 4AB in AM2.

Mr Zimmerman announced that the 802.3da/802.3dg joint session will commence at 9:00 am September 18, 2024.

Mr Zimmerman called for any other business, none responded.

Meeting recessed at 4:48pm, will resume at 9:00am September 18, 2024 to complete the 802.3dg agenda.

Meeting resumed at 9:02am on September 18, 2024 with 802.3dg work

Mr Zimmerman covers administrivia.

IEEE Patent Policy, Mr Zimmerman made the call for patents was made at 8:34am and **none** responded.

Mr Zimmerman outlines the remaining work for the 802.3dg group.

At 9:16am the meeting moved onto presentations.

Presentation: Proposals to Adopt for the PCS for 100BASE-T1L - EEE and OAM

Presented by Brian Murray, Analog Devices

- https://www.ieee802.org/3/dg/public/May_2024/Murray_3dg_03a_09172024.pdf
- Presentation began at 9:18am
- Questions asked and answered

Presentation: Proposals to Adopt for the PCS for 100BASE-T1L - Sequence Ordered Sets (04a)

Presented by Brian Murray, Analog Devices

- https://www.ieee802.org/3/dg/public/May_2024/Murray_3dg_04b_09172024.pdf
- Presentation began at 9:42am
- Questions asked and answered

Presentation: Modifications to Constant Latency MII Encoding and Ordered Sets Onto $8N/(8N+1)$ encoder

Presented by William Lo, Axonne

- https://www.ieee802.org/3/dg/public/May_2024/Lo_3dg_02_0924.pdf
- Presentation began at 9:47am
- Questions asked and answered

9:55am Motion # 7

- Move that IEEE 802.3dg not include an OAM channel and set the auxiliary bit in the OHY frame to zero.
- M: William Lo
- S: Brian Murray
- Technical (> 75%)
- Motion passes without opposition.

IMAT TIME

Mr Zimmerman announced that 802.3dg will have an interim telephonic meeting on October 29th to discuss progressing the draft with the proposals from this meeting. Mr Zimmerman will provide detailed meeting information on the reflector.

Having completed the agenda for the joint 802.3da/802.3dg meeting, Mr Jones closed the meeting at 10:02am.

Appendix A: IEEE P802.3da SPMD Task Force

Name	Employer	Affiliation	IMAT			Webex		
			Day 1	Day 2	Day 3	Day 1	Day 2	Day 3
Ahuja, Ramanjit	ON Semiconductor	ON Semiconductor		X	X		X	X
Arroyo, Hector		Analog Devices Inc.	X	X	X	X	X	X
Bar-Niv, Amir	Aquantia Corp	Marvell		X	X		X	
Beauregard, Francois	Belden Canada ULC	Belden	X	X	X	X	X	X
Benyamin, Saied	Ethernovia	Ethernovia	X			X		
Bergner, Bert	TE Connectivity Germany GmbH	TE Connectivity			X			X
Brychta, Michal	Analog Devices Inc.	Analog Devices Inc.	X	X	X	X	X	X
Donahue, Curtis	Rohde & Schwarz	Rohde & Schwarz	X	X	X	X	X	X
Gerl, Markus	MD Elektronik	MD Elektronik		X			X	
Goto, Hideki	Toyota Motor Corporation	Toyota Motor Corporation	X	X	X	X	X	X
Graber, Steffen	Pepperl+Fuchs SE	Pepperl+Fuchs SE	X	X	X	X	X	X
Hajduczenia, Marek	Charter Communications	Charter Communications		X			X	
Haydt, Mary Sue	Microchip Technology, Inc.	Microchip Technology, Inc.	X	X	X	X	X	X
Hoshino, Masayuki		Continental Automotive	X	X	X	X	X	X
Houck, TJ		Marvell	X	X	X	X	X	X
Huszak, Gergely	Self	KONE	X	X	X	X	X	X
HYAKUTAKE, YASUHIRO	Orbray Co., Ltd.	Orbray Co., Ltd.	X	X	X	X	X	X
Jones, Chad	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X	X	X	X
Jones, Peter	Cisco Systems, Inc.	Cisco Systems, Inc.	X	X	X	X	X	X
Jonsson, Ragnar	Marvell Semiconductor, Inc.	Marvell	X	X	X	X	X	
Kikuta, Tomohiro	Orbray Co., Ltd.	Orbray Co., Ltd.	X	X	X	X	X	X
Kleinwaechter, Mathias		in-tech GmbH	X	X	X	X	X	X
Kock, Joerg	NXP Semiconductors	NXP Semiconductors	X	X	X	X	X	X
Lackner, Hans	QoSCom GmbH	QoSCom GmbH	X	X		X	X	X
Lasry, Ariel	Qualcomm Technologies, Inc	Qualcomm Technologies, Inc		X	X		X	X
Law, David	Hewlett Packard Enterprise	Hewlett Packard Enterprise	X	X	X		X	
Lewis, Jon	Dell Technologies	Dell Technologies	X	X	X	X		
Lo, William	Axonne Inc.	Axonne Inc.	X	X	X	X		X
Lou, Wei		Broadcom Corporation	X	X		X	X	
Maguire, Valerie	Copperopolis	Copperopolis, affiliated with CME Consulting and Cisco	X	X	X	X	X	X
Matheus, Kirsten	BMW Group	BMW Group	X	X		X	X	
Mueller, Thomas	Rosenberger	Rosenberger		X	X	X		X
Murray, Brian	Analog Devices Inc.	Analog Devices Inc.	X	X	X	X	X	X
Panguluri, Sessa	Broadcom Corporation	Broadcom Corporation	X	X	X	X	X	X

Pardo, Carlos	Knowledge Development for POF SL	KDPOF	X	X		X	X	
Paul, Michael	Analog Devices Inc.	Analog Devices	X	X	X	X	X	
Pischl, Neven	Broadcom Corporation	Broadcom Corporation	X	X		X	X	X
Razavi, Alireza	Marvell	Marvell	X	X	X	X	X	X
Schreiner, Stephan	Rosenberger Hochfrequenztechnik GmbH & Co. KG	Rosenberger	X	X	X	X	X	X
SERIZAWA, NAOSHI	Yazaki Corporation	Yazaki Corporation	X	X		X	X	X
Sharma, Rohit		Molex Incorporated		X		X	X	
sisk, jason	University of New Hampshire InterOperability Laboratory (UNH-IOL)	University of New Hampshire InterOperability Laboratory (UNH-IOL)	X	X	X	X	X	X
Sporer, Guenter		NXP Semiconductor		X			X	
Strohmeier, Heiko	Robert Bosch GmbH	Robert Bosch GmbH	X	X	X	X	X	X
Sun, jingcong		Motorcomm Electronic Technology Co	X	X	X	X	X	X
TAZEBAY, MEHMET	Broadcom Corporation	Broadcom Corporation	X	X		X	X	
Thompson, Geoffrey	GraCaSi S.A.	INDEPENDENT	X	X	X	X	X	X
Torres, Luisma	Knowledge Development for Plastic Optical Fiber	Knowledge Development for Plastic Optical Fiber	X	X	X	X	X	X
Turner, Max	Ethernovia	Ethernovia	X	X	X	X	X	X
Veloso Cauce, Gumersindo	BMW Group	BMW AG; BMW Group	X	X	X	X	X	X
Wienckowski, Natalie	IVN Solutions LLC	IVN Solutions LLC; Ethernovia	X	X		X	X	
Withey, James	Fluke Corporation	Fluke Corporation	X	X	X	X	X	X
Wu, Peter	Marvell Semiconductor, Inc.	Marvell Semiconductor, Inc.	X	X		X	X	X
YASUKAWA, MASAKI	NEC Magnus Communications, Ltd.	NEC Magnus Communications, Ltd.		X	X		X	X
Zhang, Tingting	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X	X	X	X
Zhuang, Yan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	X	X	X	X	X	X
Zimmerman, George	CME Consulting, Inc.	CME Consulting/ADI, APL Group, Cisco, Marvell, OnSemi, SenTekSe LLC, Sony	X	X	X	X	X	X
Mueller, Harald	Endress+Hauser	Endress+Hauser					X	
Steindl, Günter	Siemens	Siemens				X		