Unconfirmed Meeting Minutes: Meeting of the IEEE P802.3cg 10 Mbps Single-Pair Ethernet Task Force

January 16-18, 2019
Long Beach, CA USA

Prepared by Jon Lewis, Dell EMC

The meeting of the IEEE P802.3cg 10 Mbps Single Pair Ethernet Task Force convened at 1:03 PM, Wednesday, January 16, 2019 by George Zimmerman, P802.3cg Task Force chair.

Attendance for the meeting is listed in Appendix A

All presentations referenced in these minutes are located on the January 2019 P802.3cg public website.

Administrative Matters

George Zimmerman displayed the agenda in agenda_3cg_01_0119.pdf.

The Task Force Chair asked the participants to introduce themselves, their employer and affiliations.

- Mr. Zimmerman noted that there should be no recording or photography permitted.
- Mr. Zimmerman asked if anyone was attending from the press including those who would run a public blog on this meeting. None responded.

Chair reviewed the goals for the meeting, big ticket items, access to the reflector and website, and ground rules for the meeting.

Attendance, Mr. Zimmerman advised the group that the attendance tool should be used each day to record attendance. The physical attendance log was introduced and passed to the group.

IEEE Patent Policy, at **1:18 PM**, Mr. Zimmerman noted that the patent policy had been updated and then read slide 1 of the patent policy aloud. Mr. Zimmerman then made the call for potentially essential patents at **1:20 PM**, none responded. Mr. Zimmerman then read aloud slides #3 and #4.

Mr. Zimmerman asked if anyone in the room had not seen the participation policy this week. He showed the slide entitled "Participation in IEEE 802 Meetings" and

summarized its contents. Mr. Zimmerman asked if there was any discussion necessary, none responded.

Chair reviewed the IEEE 802.3 Standards process and where the Task Force was in the process and the process by which we will develop the standard.

Motion #1: **Move to approve the agenda as shown in agenda_3cg_01_0119.pdf.**
M: **Peter Jones** **S: Steffen Graber**
Approved by voice without opposition (Procedural > 50%)
Motion Passes

Motion #2: **Move to approve minutes of IEEE P802.3cg 10 Mbps Single Pair Ethernet Task Force from November 2018 as posted.**
M: **Piergiorgio Beruto** **S:** **Amrik Bains**
Approved by voice without opposition (Procedural > 50%)
Motion Passes

LIAISONS

TIA TR42 to IEEE 802.3 regarding balanced single pair connector selection

The Task Force reviewed the liaison letter. Valerie Maguire noted that the next TIA meeting was in two weeks.

ISO/IEC SC25/WG3 to IEEE 802.3 on connecting hardware for single pair cabling

James Withey indicated that a response was not required.

Title: 802.3cg 10SPE TF Ad Hoc Report (jones_10spe_01_0119.pdf)
Presenter: Peter Jones, Cisco

Peter Jones noted that the next meeting might be canceled.

Title: Editor's Report: P802.3cg Draft D2.2 (maguire_3cg_01a_0119.pdf)
Presenter: Valerie Maguire, Siemon; P802.3cg chief editor

The Editor reviewed the last draft balloting status, outlined the comments by topic, and reminded participants that the comments had been posted by topic on the website.

Motion #3: **Move to consider 9 comments (#314 through #321) submitted after the P802.3cg draft 2.2 Working Group 2nd Recirculation ballot deadline, included with Editor's proposed resolutions.**
M: Valerie Maguire **S: Mick McCarthy**
(Technical >= 75%)
Motions Passes by Voice without opposition

The Chief Editor reviewed the distribution of the submitted comments.

The Editor asked if anyone would like more time to review the EZ bucket or needed any comments pulled from the EZ bucket list.

Motion #4: **Accept the resolutions to all P802.3cg d2p2 comments marked with the Topic "EZ" and posted as, '"EZ Bucket" comments with proposed resolutions sorted by clause/subclause', excluding comments #248 and #249.**
M: Valerie Maguire   S: Mick McCarthy
(Technical >= 75%)
Y: 37   N: 0   A: 12
Motion Passes

Motion #5: **Accept the resolutions to all P802.3cg d2p2 comments marked with the Topic "Editorial" and posted as, '"Editorial" comments with proposed resolutions sorted by clause/subclause', excluding withdrawn comments and comments #92, #209, #222, #232, #250, #262, and #267.**
M: Valerie Maguire   S: Brett McClellan
(Technical >= 75%)
Y: 35   N: 0   A: 11
Motion Passes

At this time, the editor's report was concluded.

Title: Comments & Charter Docs, IEEE 802.3cg 10 Mb/s SPE (related to comment 322) (2019-01-16%20Comments%20v%20charter%20docs2.pdf)
Presenter: Geoff Thompson, GraCaSI S.A.

The Task Force took a short break at 2:47 PM

The Task Force resumes at 3:09

Title: 8023cg_D2p2 MDI Comments (diminico_3cg_01_0119.pdf)
Presenter: Chris DiMinico, PHY-SI

Title: IEEE 802.3cg MDI connector Limitations (bains_3cg_01e_0119.pdf)
Presenter: Amrik Bains, Cisco Systems

Title: Update standardization of MICE 2/3 MDI connector acc. to IEC 61076-3-125 (Fritsche_3cg_01_0119.pdf)
Presenter: Mattias Fritsche, Harting Technology Group

Title: Conducted Immunity (Graber_3cg_01c_0119.pdf)
Presenter: Steffan Graber, Pepperl+Fuchs

Title: PLCA Burst mode fixes (beruto_3cg_burst_mode_fixes_revC.PDF)
Presenter: Piergiorgio Beruto, Canova Tech

COMMENT RESOLUTION

Decisions during comment resolution were made by consensus, except where noted that motions were taken. For details on comment resolution see the posted comment database.

Presentations related to comment resolution are listed as they were presented. Details on the outcome of these presentations are contained in the comment database.

The Task Force meeting recessed at 5:48 PM.

The Task Force was brought to order at 7:01 PM.

The Chair brought the meeting to order and explained that this meeting is part of the P802.3 Task Force meeting. The purpose of this meeting is a tutorial on the P802.3cg project.

The Chair displayed agenda_3cg_01a_0119.pdf. (updated to show the evening session)

The Task Force Chair asked the participants to introduce themselves, their employer and affiliations.

- Mr. Zimmerman noted that there should be no recording or photography permitted.
- Mr. Zimmerman asked if anyone was attending from the press including those who would run a public blog on this meeting. None responded.

Chair reviewed access to the reflector and website, and ground rules for the meeting.

Attendance, Mr. Zimmerman advised the group that the attendance tool should be used each day to record attendance but that for the evening sessions it was closed. The physical attendance log was introduced and passed to the group.

IEEE Patent Policy, at **7:06 PM**, Mr. Zimmerman asked if anyone had not heard the patent policy this week, none responded. Mr. Zimmerman then made the call for potentially essential patents at **7:07 PM**, none responded.

Mr. Zimmerman asked whether anyone had not seen the participation policy this week, none responded. He noted that the slide entitled "Participation in IEEE 802 Meetings" had been shown in the afternoon session and thus would be reviewed and not read aloud completely.

Title: tutorial IEEE P802.3cg 10Mb/s Single Pair Ethernet: A guide
      (Tutorial_cg_0119_final.pdf)
Presenter: George Zimmerman, CME Consulting; Peter Jones, Cisco; Jon Lewis, Dell EMC

The Task Force meeting recessed for the day at 8:13 PM.

The Task Force was brought to order at 8:06 AM.

The Chair displayed agenda_3cg_01_0119.pdf.

IEEE Patent Policy, at **8:06 AM**, Mr. Zimmerman asked if anyone had not heard the patent policy this week, none responded.

- Mr. Zimmerman noted that there should be no recording or photography permitted.
- Mr. Zimmerman asked if anyone was attending from the press including those who would run a public blog on this meeting. None responded.

Mr. Zimmerman then made the call for potentially essential patents at **8:08 AM**, none responded.

Mr. Zimmerman asked whether anyone had not seen the participation policy this week, none responded. He noted that the slide entitled "Participation in IEEE 802 Meetings" had been shown in the afternoon session and thus would be reviewed and not read aloud completely.

Comment resolution continued.

Title: Clause 104 Cleanup (stewart_0119_r001.pdf)
Presenter: Heath Stewart, Analog Devices

The group took a short break at 10:05 AM.

The meeting resumed at 10:34 AM.

The Chair called the meeting back to order and comment resolution continued.

Title: IEEE 802.3cg MDI connector Limitations (bains_3cg_01e_0119.pdf)
Presenter: Amrik Bains, Cisco Systems

Title: MDI interface for 10BASE-T1 (Horrrmeyer_3cg_01_0119.pdf)
Presenter: Bernd Horrmeyer, Phoenix Contact

The meeting broke for lunch at 12:10 PM

The meeting resumed at 1:03 PM

The Chair called the meeting back to order and comment resolution continued.

The meeting took a short break at 2:48 PM

The meeting resumed at 3:08 PM

The Chair called the meeting back to order and comment resolution continued.

Straw poll #1:
How many people would attend P802.3ck if the meeting times didn't overlap with
P802.3cg.
Count: 5
Room count: 42

The Chair indicated that the start time for Friday would be 8:00 AM.

The Task Force meeting recessed for the day at 5:56 PM.

The Task Force was brought to order at 8:05 AM.

The Chair brought the meeting to order and advised the group that the attendance tool
should be used each day to record attendance. The physical attendance log was
introduced and passed to the group.

IEEE Patent Policy, at **8:06 AM**, Mr. Zimmerman asked if anyone had not heard the
patent policy this week, none responded.

- Mr. Zimmerman noted that there should be no recording or photography
  permitted.
- Mr. Zimmerman asked if anyone was attending from the press including those
  who would run a public blog on this meeting. None responded.

Mr. Zimmerman asked if anyone had not seen the slide entitled "Participation in IEEE
802 Meetings", none responded.

Comment resolution continued.

Straw poll #2:
I am likely to attend the off-cycle 802.3cg interim February 19-20, 2019 in Milpitas, CA (San Francisco Bay area):
Y: 15   N:15   M: 5

Straw poll #3:
I am likely to attend 802.3cg at:
March 2019 802 Vancouver, BC Canada plenary:
Y: 35   N: 1   M: 6

May 2019, Salt Lake City, Utah, USA:
Y: 24   N: 1   M: 13

Straw poll #4:
I support rejecting this comment with the rationale: "Commenter incorrectly posits that the Clause 148 PLCA RS is a new MAC.   It does not meet the requirements for a MAC, and, leaves the MAC functionality with Clause 4, which, in fact, it could not work without. Commenter incompletely quotes IEEE Std 802-2014 4.1, paragraph 6 leading to incorrect conclusions regarding peer-to-peer networking. Additionally, commenter's suggested remedy appears to assert that the Clause 148 reconciliation sublayer is required. It is not; use of the Clause 148 PLCA RS is optional.

See www.ieee802.org/3/cg/public/Jan2019/Tutorial_cg_0119_final.pdf.

Task Force: Y:30   N:2   A:6
802.3 Voters: Y:18   N:2   A:1

The Task Force took a short break at 10:20 AM.

The Task Force was called back to order at 10:42 AM.

The Chair called the meeting back to order and comment resolution continued.

Title: PLCA Prototype Validation with Existing Hardware
       (baggett_3cg_01_0119.pdf)
Presenter: Tim Baggett, Microchip

The Task Force broke for lunch at 12:03 AM.

The Task Force was called back to order at 1:05 PM.

The Chair called the meeting back to order and comment resolution continued.

Straw poll #5:

I support rejecting this comment with the rationale: "Commenter incorrectly posits that the Clause 148 PLCA RS is a new MAC It does not meet the requirements for a MAC, and, leaves the MAC functionality with Clause 4, which, in fact, it could not work without.

See http://www.ieee802.org/3/cg/public/Jan2019/Tutorial_cg_0119_final.pdf."

Task Force: Y:17   N:1   A:5
802.3 Voters: Y:15   N:0   A:2

Straw poll #6:
I support rejecting this comment with the rationale: "Commenter provides insufficient information for a remedy. PLCA is not a MAC.

Refer to http://www.ieee802.org/3/cg/public/Jan2019/Tutorial_cg_0119_final.pdf"

Task Force: Y:19 N:1 A:6
802.3 Voters: Y:15 N:1 A:1

The Chair then asked if there were additional comments from the floor, none responded.

Comment resolution concluded.

The Chair then reviewed the future meetings.

Motion #9: Adjourn the meeting.
M: S:
Approved by voice without opposition (Procedural > 50%)
Motion Passes

THE MEETING ADJOURNED AT 4:23 PM

Appendix A: Attendees at the IEEE P802.3cg 10 Mb/s Single-Pair Ethernet Task Force Meeting, January 16-18, 2018.

IEEE 802.3 P802.3cg 10 Mb/s Single Pair Ethernet Task Force IEEE 802.3 January 2019					Day 1 16 Jan	Day 1 16 Jan Evening	Day 2 17 Jan	Day 3 18 Jan
By choosing to attend and sign in to this meeting, you acknowledge and agree that your personal data will be documented for IEEE standards development purposes to comply with policies and procedures, legal and accreditation requirements, and evaluation of patent claims by patent offices. See Front Page for additional information.								
Last Name	First Name	Employer	Other Affiliations		Wed	Tutorial	Thurs	Fri
An	Hongming	Microchip	Microchip		X	X	X	X
Araki	Nobuyasu	Yazaki	Yazaki		X	X	X	X
Baggett	Tim	Microchip	Microchip		X	X	X	X
Bains	Amrik	Cisco	Cisco		X	X	X	X
Balasubramanian	Venu	Marvell	Marvell			X		
Beruto	Piergiorgio	Canova Tech SRL	Canova Tech SRL		X	X	X	X
Brandt	David	Rockwell Automation	Rockwell Automation		X	X	X	X
Brownlee	Phillip	Independent	TDK		X	X		X
Buckmeir	Brian	Bel Fuse Inc.	Bel Fuse Inc.		X	X	X	X
Cates	Ron	Marvell	Marvell			X		
Chang	Jacky	HPE	HPE			X		
Choudary	Mabud	OFS	OFS			X		
Dawson	Fred	Chemours	Chemours		X	X	X	
Den Besten	Gerrit	NXP Semiconductors	NXP Semiconductors		X			

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Last Name	First Name	Employer	Other Affiliations	Wed	Tutorial	Thurs	Fri
den Besten	Gerritt	NXP	NXP		X		
DiBiaso	Eric	TE Connectivity	TE Connectivity	X		X	
DiMinico	Christopher	MC Communications	Panduit	X		X	
Dube	Kathryn	UNH-IOL	UNH-IOL	X	X	X	X
Dudek	Mike	Marvell	Marvell		X		
Dupuis	Marc	Web Industries	Web Industries	X		X	
Engels	Yvan	Leoni	Leoni	X		X	
Estes	David	Spirent	Spirent		X		
Fazlollah	Amir	Futurewei	Futurewei	X			
Franchuk	Brian	Emerson Automation Solutions	Emerson Automation Solutions	X	X	X	X
Fritsche	Matthias	Harting	Harting	X	X	X	X
Gardner	Mike	Molex, LLC	Molex, LLC	X		X	
Gauthier	Claude	NXP	NXP		X		
Graber	Steffen	Pepperl+Fuchs	Pepperl+Fuchs	X	X	X	X
Grau	Olaf	Robert Bosch	Robert Bosch	X	X	X	

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Last Name	First Name	Employer	Other Affiliations	Wed	Tutorial	Thurs	Fri
Grow	Robert	RMG Consulting	RMG Consulting	X	X	X	X
Gubow	Martin	Keysight Technologies	Keysight Technologies	X	X	X	X
Hajduczenia	Marek	Charter	Charter		X	X	
Healey	Adam	Broadcom Inc.	Broadcom Inc.				X
Hess	Dave	Cord Data	Cord Data	X	X	X	X
Horrmeyer	Bernd	Phoenix Contact	Phoenix Contact			X	X
Hyakutake	Yasuhiro	Adament Namiki Precision Jewel	Adament Namiki Precision Jewel	X	X	X	X
Ingrassia	Alessandro	Canova Tech SRL	Canova Tech SRL	X	X	X	
Ito	Hiroaki	Yazaki	Yazaki	X	X	X	X
Jones	Chad	Cisco	Cisco		X		X
Jones	Peter	Cisco	Cisco		X	X	X
Kadry	Haysam	Ford Motor Company	Ford Motor Company	X	X	X	X
Kim	Inho	Marvell	Marvell		X		
Koczwara	Wojciech	Rockwell Automation	Rockwell Automation	X	X	X	X
Kountz	Dennis	Chemours	Chemours	X	X	X	
Krieger	Olaf	Volkswagen	Volkswagen	X		X	X

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Last Name	First Name	Employer	Other Affiliations	Wed	Tutorial	Thurs	Fri
Krieger	Olaf	Volkswagen	Volkswagen		X		
Kumada	Taketo	Yazaki	Yazaki	X	X	X	X
Law	David	Hewlett Packard Enterprise	Hewlett Packard Enterprise	X	X	X	X
Lawlis	James	Ford Motor Company	Ford Motor Company	X	X	X	X
Lewis	Jon	Dell | EMC	Dell | EMC	X	X	X	X
Maguire	Valerie	Siemon	Siemon	X	X	X	X
Malicoat	David	Malicoat Network Solutions	Malicoat Network Solutions	X	X	X	X
Masuda	Takeo	OITDA	OITDA	X			
Matheus	Kirsten	BMW	BMW	X	X	X	
McCarthy	Mick	Analog Devices	Analog Devices	X	X	X	X
McClellan	Brett	Marvell	Marvell	X	X	X	X
McMillan	Larry	Western Digitial	Western Digital		X		
Mikolich	Paul	Self	Self/Chair IEEE 802 LMSC		X		
Mitsuharu	Mizutani	TDK	TDK	X		X	
Mortazaui	Sanaz	Volkswagen	Volkswagen	X			

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Last Name	First Name	Employer	Other Affiliations	Wed	Tutorial	Thurs	Fri
Mueller	Harald	Endress+Hauser	Endress+Hauser	X		X	X
Neveux	Paul	Superior Essex	Superior Essex			X	
Patwardman	Gaurav	ADI	ADI	X	X	X	X
Pohl	Christopher	Beckhoff	Beckhoff	X	X	X	X
Reed	Charity	UNH-IOL	UNH-IOL	X	X	X	X
Rehrs	Thomas	Beckhoff	Beckhoff		X		
Reinhard	Michael	SEI ANTech-Europe GmbH	SEI ANTech-Europe GmbH	X		X	
Rettig	Thomas	Beckhoff	Beckhoff	X		X	X
Sambarasu	Rakesh	Nexans	Nexans	X	X	X	
Schweitz	Laura	Turck	Turck	X		X	X
Shariff	Masood	Commscope	Commscope	X	X	X	
Shiino	Masato	Furukawa Electric	Furukawa Electric	X	X	X	X
Sparrowhawk	Bryan	Leviton	Leviton	X	X	X	X
Sternbery	Mitchell	UNH-IOL	UNH-IOL	X	X	X	
Stewart	Heath	Analog Devices	Analog Devices		X	X	X
Taiji	Kondo	Megachips	Megachips	X	X	X	X
Takahashi	Tadashi	Nitto Denko Corp.	Nitto Denko Corp.	X		X	X

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Takayama	Kazuya	Nitto Denko Corp.	Nitto Denko Corp.	X		X	X
Takefmn	Michael	Inphi	Inphi		X		
Thompson	Geoff	GraCaSI SA.	Independent	X	X	X	X
Umnov	Alexander	Corning	Corning		X		
Wang	Chao	Huawei	Huawei			X	X
Wells	Hunter	UNH-IOL	UNH-IOL	X	X	X	X
Wienckowski	Natalie	GM	GM	X	X	X	
Withey	James	Fluke Networks	Fluke Networks	X	X	X	X
Wu	Peter	Marvell	Marvell	X	X		
Wucher	Markus	Endress+Hauser	Endress+Hauser	X		X	X
Zerna	Conrad	Frannhofer IIS	Frannhofer IIS		X		
Zimmerman	George	CME Consulting	Commscope, Aquantia, CME Consulting, Cisco, ADI, BMW, APL Group	X	X	X	X
Zivney	Pavel	Tektronix	Tektronix				X