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

May 21-23, 2018
Pittsburgh, PA USA

Prepared by Jon Lewis, Dell EMC

The meeting of the IEEE P802.3cg 10 Mbps Single-Pair Ethernet Task Force convened at 9:01 AM, Monday, May 21, 2018 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 May 2018 802.3cg public website.

Administrative Matters

Mr. Zimmerman appointed Jon Lewis as recording secretary for this session.

George Zimmerman displayed the agenda in agenda_3cg_01_0518.pdf.

Motion #1:   Move to approve the agenda as shown in agenda_3cg_01_0518.pdf.
M: James Withey   S: Gergely Huszak
Approved by voice without opposition (Procedural > 50%)
Motion Passes

The Task Force Chair asked if there was any objection to moving introductions to later in the agenda.

Motion #2:   Move to approve minutes of IEEE P802.3cg 10 Mbps Single Twisted Pair Ethernet Task Force from March 2018 as posted.
M: Bob Voss   S: James Withey
Approved by voice without opposition (Procedural > 50%)
Motion Passes

- 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 **9:18 AM**, Mr. Zimmerman noted that the patent policy had been updated and then read slides 1-4 of the patent policy aloud. Mr. Zimmerman then made the call for potentially essential patents at **9:20 AM**, none responded. Mr. Zimmerman then read aloud slide #3.

Mr. Zimmerman reviewed the slide entitled "Participation in IEEE 802 Meetings" and 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.

LIAISONS
No Liaisons

PRESENTATIONS

Mr. Zimmerman showed the PAR, CSD and Objectives URLs and reviewed the approved timeline for the Task Force, updated at the March 2018 IEEE 802 plenary and May Standards Board meetings.

Title: Editor's Report: P802.3cg Draft D1.1 (maguire_3cg_01_0518.pdf)
Presenter: Valerie Maguire, Siemon; P802.3cg chief editor

The Editor outlined the comments by topic, and reminded participants that the comments had been posted by topic on the website. The Editor asked if anyone would like more time to review the EZ bucket or needed any comments pulled from the EZ bucket list, and there were no requests from the Task Force.

Motion #3: Accept the resolutions to all P8023.cg d1p2 comments marked with
**   the Topic "EZ" and posted as, '"EZ Bucket" comments sorted by**
**   clause/subclause", excluding none.**
M: Valerie Maguire   S: David Brandt
Approved by voice without opposition (Procedural > 50%)
Motion Passes

Motion #4: Accept the resolutions to all P8023.cg d1p1 comments marked with the Topic "EZ" and posted as ""EZ Bucket" comments sorted by clause/subclause" excluding none.
M: Valerie Maguire   S: Gergely Huszak
Approved by voice without opposition (Procedural > 50%)
Motion Passes

Curtis Donahue offered to assist with developing proposed Editor's resolutions to future clause 98 comments and implementing changes as needed.

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

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 below. Details on the outcome of these presentations are contained in the comment database. Presentations are not ordered as they were presented during comment resolution.

Presentations related to comments		
10BASE-T1L Energy Efficient Ethernet Text related to 10BASE-T1L Energy Efficient Ethernet	Steffen Graber	Pepperl+Fuchs
10BASE-T1L Auto-Negotiation	Steffen Graber	Pepperl+Fuchs
10BASE-T1L MDI Return Loss (rev a)	Steffen Graber	Pepperl+Fuchs
10BASE-T1L AWGN Noise Test	Steffen Graber	Pepperl+Fuchs
10BASE-T1L Service Primitives	Steffen Graber	Pepperl+Fuchs
Comments 363&364: Coupling attenuation and EMC considerations	Dieter Schicketanz	Reutinglen Univ.
IEEE 802.3cg TF Comments of draft 1.2 (various) * updated * (originally called beruto_3cg_29_0418, now beruto_3cg_01_0518)	Piergiorgio Beruto Antonio Orzelli	CanovaTech
Comment 478 -MDI electrical specification **rev b (5/21)**	Gian Marco Bo Piergiorgio Beruto	CanovaTech
802.3cg TF T1S Preamble (new 5/21)	Piergiorgio Beruto Antonio Orzelli	CanovaTech
MDI Connectors (withdrawn)	Bernd Horrmeyer	Phoenix Contact
IEEE P802.3cg 147.10 Environmental specifications	David Brandt, Scott Griffiths	Rockwell Automation
IEEE P802.3cg 147.10.2.1 Environmental safety	David Brandt, Scott Griffiths George Zimmerman Tim Baggett	Rockwell Automation CME Consulting/(various) Microchip Technology
Autonegotiation Start Delimiter	Steffen Graber	Pepperl+Fuchs
10BASE-T1L Auto-Negotiation_Rev0p1	Steffen Graber	Pepperl+Fuchs

Presentations related to comments		
IEEE P802.3cgComment #425 on subclause:146.8.3 MDI return loss	David Brandt George Zimmerman Piergiorgio Beruto	Rockwell Automation CME Consulting CanovaTech
IEEE 802.3cg T1S Preamble Associated text changes	Piergiorgio Beruto Antonio Orzelli	CanovaTech
IEEE 802.3cg T1S Transmitter Droop	Piergiorgio Beruto Antonio Orzelli	CanovaTech
OAM for 802.3cg 10BASE-T1S	Jay Cordaro Mehmet Tazebay	Broadcom, Ltd.

The meeting recessed for a short break at 10:36 AM.

The meeting resumed at 11:04 AM.

The Chair brought the meeting back to order and called for introductions and affiliations.

After concluding that administrative business comment resolution continued.

The meeting recessed for lunch at 12:09 PM.

The meeting resumed at 1:32 PM.

The chair resumed the meeting and comment resolution continued.
The meeting recessed for a short break at 3:05 PM.

The meeting resumed at 3:37 PM.

Comment resolution continued.

The Task Force meeting recessed for the day at 5:54 PM.

The Task Force was brought to order at 8:10 AM.

Mr. Zimmerman called the meeting to order.

- 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 **8:17 AM**, Mr. Zimmerman asked if anyone had not seen the patent policy this week, none responded. Mr. Zimmerman then made the call for potentially essential patents at **8:18 AM**, none responded.

Mr. Zimmerman reviewed the slide entitled "Participation in IEEE 802 Meetings" and 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.

The Chair then resumed comment resolution.

The meeting recessed for lunch at 12:15 PM.

The meeting resumed at 1:40 PM.

Straw Poll #1:
I am likely to attend 802.3cg at:
      July 2018 802 San Diego, CA, USA plenary:
      Y: 24 N: 5   M: 7

      September 2018 interim, Spokane, WA, USA:
      Y: 21 N: 4   M: 14
Room Total: 40

Comment resolution continued.

The meeting recessed for a short break at 3:08.

The meeting resumed at 3:30 PM.

Comment resolution continued.

The Chair noted that the start time would be 9:00 AM on Wednesday and the Task Force would start with the deferred comments.

Motion #5: **Consider late comment #502.**
M: Valerie Maguire   S: Peter Jones
Approved by voice without opposition (Procedural > 50%)
Motion Passes

The Task Force meeting recessed for the day at 5:40 PM.

The Task Force was brought to order at 9:03 AM.

Mr. Zimmerman called the meeting to order.

- 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.

Mr. Zimmerman reviewed the slide entitled "Participation in IEEE 802 Meetings" and 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.

IEEE Patent Policy, at **9:05 AM**, Mr. Zimmerman asked if anyone had not seen the patent policy this week, none responded. Mr. Zimmerman then made the call for potentially essential patents at **9:07 AM**, none responded.

The Chair noted that several late comments had been received since the Task Force recessed.

<u>Motion #6:</u> **Move to consider late comments #503, #504, #505, #506 and #507**
M: Valerie Maguire
S: Bob Voss
Approved by voice without opposition (Procedural > 50%)
Motion Passes

The meeting recessed for a short break at 10:36 AM.

The meeting resumed at 11:06 AM.

The Chair resumed comment resolution.

The following straw polls were in consideration of comment #384:

Straw Poll #2
I support the inclusion of OAM in d1p3 as described in beruto_3cg_04_0518.pdf and 8023cg10base-t1s OAM.PDF, with text in
http://www.ieee802.org/3/cg/public/May2018/IEEE%208023cg_draft%201.2_jjhh.pdf
Y:11   N:9   A:22

Straw Poll #3
I am opposed to including OAM in the 802.3cg draft
Y:9 (Voting did not continue)

Straw Poll#4
I support changing the preamble to improve the autocorrelation properties either now or at a future revision of the draft
Y:26   N:0   A:16

The meeting recessed for lunch at 12:10 PM.

The meeting resumed at 1:35 PM.

The Chair brought the meeting to order and noted that an additional late comment was received.

Motion #7: Consider late comment #508
M: Valerie Maguire
S: Bob Voss
Y: 25 N: 11 A: 17
(Technical >= 75%)
Motion Fails

In order to gain consensuwds for motions related to comments the Chair called for a short break.

The meeting recessed for a short break at 2:25 PM.

The meeting resumed at 2:38 PM.

After resuming the meeting the chair proceeded with presentations not related to comments.

Title: 10BASE-T1L Power Delivery (stewart_3g_01f_0518.pdf)
Presenter: Heath Stewart, Analog Devices

Motion 8: Move to accept slides 7-11 of stewart_3g_01f_0518.pdf for incorporation with resolved comments.
M: Heath Stewart S: Chad Jones
Y: 32 N: 0 A: 17

(Technical >= 75%)
Motion Passes

The meeting recessed for a short break at 2:57 PM.

The meeting resumed at 3:36 PM.

The Chair called the Task Force to order and continued with comment resolution.

Motion #9: Move to make the following changes to Annex 200A:
      Change number to 146B
      Change to Informative
      Remove any empty sections
      Give the editor license to rewrite the 200A.1 Overview section to reflect the
      approved content.
M: Chris Diminico S: Heath Stewart
Approved by voice without opposition (Procedural > 50%)
Motion Passes

Motion #10: Move that the disposition of comments 388, 390, 391, 392, 393, 394 related to Cable Diags be considered in a single motion.
M: Peter Jones   S: David Brandt
(Procedural > 50%)
Y: 31 N: 1   A: 9
Motion Passes

Motion #11: Move to ACCEPT the comments 388, 390, 391, 392, 393, 394 related to Cable Diags
M: Peter Jones   S: Bob Voss
(Technical >= 75%)
Y: 6   N: 25 A: 12
Motion Fails

Motion #12: Move to REJECT the comments 388, 390, 391, 392, 393, 394 related to Cable Diags
M: Peter Jones   S: Brett McClellan
(Technical >= 75%)
Y: 21 N: 8   A: 11
Motion Fails

Motion #13: Move to REJECT the comments 388, 390, 391, 392, 393, 394 related to Cable Diags on the basis of No Consensus for Change.
M: Brett McClellan   S: Piergiorgio Beruto
(Technical >= 75%)
Y: 32 N: 4   A: 2
Motion Passes

Motion #14: Move that the disposition of comments 382, 383, 384, 385, 386, 387 related to OAM be considered in a single motion.
M: Peter Jones   S: Amrik Bains
(Procedural > 50%)
Y: 23 N: 2   A: 12
Motion Passes

Motion #15: Move to "Accept in Principle" the proposed resolution defined below for comments 382, 383, 384, 385, 386, 387 related to OAM
Proposed Resolution:
Remove the OAM feature from the draft
M: Peter Jones   S: Phil Brownlee
(Technical >= 75%)
Y: 17 N: 12 A: 7
Motion Fails

Motion #16: Move to "ACCEPT" the commenter's original resolution for comments 382, 383, 384, 385, 386, 387 related to OAM
M: Peter Jones   S: Mehmet Tazebay
(Technical >= 75%)
Y: 13 N: 16 A: 9
Motion Fails

Motion #17: Move to "REJECT" the comments 382, 383, 384, 385, 386, 387 related to OAM for reason of no consensus to change.
M: Peter Jones   S: Amrik Bains
(Technical >= 75%)
Y: 18 N: 13 A: 8
Motion Fails

Motion #18: Move to "Accept in Principle" the proposed resolution defined below for comments 382, 383, 384, 385, 386, 387 related to OAM
Proposed Resolution:
Accept the commenter's suggested remedies and accept changes in IEEE8023cg_draft.2_jjhh.pdf.
M: Mehmet Tazebay   S: Gergely Huszak
(Technical >= 75%)
Y: 22 N: 9   A: 6
Motion Fails

Straw Poll 6:
I would support accepting the preamble and OAM basis in
http://www.ieee802.org/3/cg/public/May2018/beruto_3cg_04_0518.pdf without the

additional changes in http://www.ieee802.org/3/cg/public/May2018/8023cg10base-t1s%20OAM.PDF
Y: 21   N: 8   A:6

Title: Editor's Closing Report: P802.3cg Draft D1.1 (maguire_3cg_02_0518.pdf)
Presenter: Valerie Maguire, Siemon; P802.3cg chief editor

Motion #19: Move to: Generate Draft 1.3 for Task Force recirculation from draft 1.2 and the closed comments and pre-submit draft 1.3 to IEEE 802.3 in anticipation of requesting WG Ballot in July 2018
M: Valerie Maguire
S: Gergely Huszak
MOTION PASSES by voice without opposition

Motion #20: Move to: Instruct Editors to implement PICs as needed throughout draft 1.3 prior to Task Force review
M: Valerie Maguire
S: Gergely Huszak
MOTION PASSES by voice without opposition

Straw Poll #7:
I agree with the following statement:
    A. I believe there are unresolved problems to be resolved as described in
        http://www.ieee802.org/3/cg/public/adhoc/802.3cg%20half%20duplex%20and%20plca%20issues-V3.pdf
    B. I believe that the task force has made changes to resolve any concerns in the above contribution
    C. I believe there are no unresolved problems as described in the above contributions

(chicago)
A:0   B:2   C:17

Having exhausted the agenda items the Chair asked if there was any further business, none responded.

THE MEETING ADJOURNED AT 5:59 PM

Appendix A: Attendees at the IEEE P802.3cg 10 Mb/s Single-Pair Ethernet Task Force Meeting, May 21-23, 2018.

IEEE P802.3cg Task Force May'18				5/21/18	5/22/18	5/23/18
Last Name	First Name	Employer	Affiliation	Monday	Tuesday	Wednesday
Abramson	David	Texas Instruments	Texas Instruments			X
Agnes	Andrea	ST Microelectronics	ST Microelectronics	X		
Amason	Dale	NXP	NXP	X	X	X
An	Hongming	Microchip	Microchip	X	X	X
Baggett	Tim	Microchip	Microchip	X	X	X
Bains	Amrik	Cisco	Cisco	X	X	X
Baum	Andrew	Bel Stewart Connector	Bel Stewart Connector	X	X	X
Beruto	Piergiorgio	Canova Tech SRL	Canova Tech SRL	X	X	X
Brandt	David	Rockwell Automation	Rockwell Automation	X	X	X
Brownlee	Phillip	TDK	TDK	X	X	X
Carlson	Steve	High Speed Design	Robert Bosch/Marvell	X		
Chabot	Craig	UNH-IOL	UNH-IOL	X		X
Den Besten	Gerrit	NXP Semiconductors	NXP Semiconductors	X	X	X
DiBiaso	Eric	TE Connectivity	TE Connectivity	X	X	X
DiMinico	Christopher	MC Communications	Panduit	X		
Donahue	Curtis	UNH - IOL	UNH - IOL	X	X	X
Dube	Kathryn	UNH-IOL	UNH-IOL	X	X	X
Dupuis	Marc	Web Industries	Web Industries	X		X
Franchuk	Brian	Emerson Automation Solutions	Emerson Automation Solutions	X	X	X
Gardner	Mike	Molex, LLC	Molex, LLC	X	X	X
Gauthier	Claude	NXP	NXP	X	X	X
Gottron	Jens	Siemens AG	Siemens AG	X	X	X
Graber	Steffen	Pepperl+Fuchs	Pepperl+Fuchs		X	X

IEEE P802.3cg Task Force May'18				5/21/18	5/22/18	5/23/18
Last Name	First Name	Employer	Affiliation	Monday	Tuesday	Wednesday
Grau	Olaf	Robert Bosch	Robert Bosch	X	X	X
Gunther	Craig	Harmon International	Harmon International			X
Hess	Dave	Cord Data	Cord Data		X	X
Hess	John	Bel Magnetics	Bel Magnetics			X
Horrmeyer	Bernd	Phoenix Contact	Phoenix Contact	X	X	X
Huszak	Gergely	Kone	Kone	X	X	X
Jones	Chad	Cisco	Cisco			X
Jones	Peter	Cisco	Cisco	X	X	X
Kattainen	Ari	Kone	Kone	X	X	X
Law	David	Hewlett Packard Enterprise	Hewlett Packard Enterprise	X	X	X
Lawlis	James	Ford Motor Company	Ford Motor Company	X	X	X
Lewis	Jon	Dell | EMC	Dell | EMC	X	X	X
Lin	Bin	TE Connectivity	TE Connectivity	X	X	X
Maguire	Valerie	Siemon	Siemon	X	X	X
Matheus	Kirsten	BMW	BMW	X	X	X
McCarthy	Mick	Analog Devices	Analog Devices	X	X	X
McClellan	Brett	Marvell	Marvell	X	X	X
Medina	Marcel	Spirent	Spirent		X	X
Moritake	Toshijuki	JAE	JAE	X		
Mueller	Harald	Endress+Hauser	Endress+Hauser	X	X	
Pandey	Sujan	NXP	NXP	X	X	X
Regev	Alon	Keysight Technologies	Keysight Technologies	X	X	
Renteria	Victor	Bel Fuse Inc.	Bel Fuse Inc.	X	X	X
Ryan	Tim	UNH-IOL	UNH-IOL	X		X
Scantamburlo	Nicola	CanovaTech	CanovaTech	X	X	X
Shariff	Masood	Commscope	Commscope	X	X	X
Sostawa	Bernd	Microchip	Microchip	X	X	X

IEEE P802.3cg Task Force May'18				5/21/18	5/22/18	5/23/18
Last Name	**First Name**	**Employer**	**Affiliation**	**Monday**	**Tuesday**	**Wednesday**
Sparrowhawk	Bryan	Leviton	Leviton	X	X	X
Taiji	Kondo	Megachips	Megachips	X	X	X
Tazebay	Mehmet	Broadcom Ltd.	Broadcom Ltd.	X	X	X
Thompson	Geoff	GraCaSI SA.	Independent	X	X	X
Tremblay	David	HPE	HPE			X
Vanderlaan	Paul	Berk-Tek LLC	Berk-Tek LLC			X
Voss	Bob	Panduit	Panduit	X	X	X
Wechsler	Christopher	Audi AG	Audi AG	X		X
Wessels	Robert	CommScope	CommScope	X		X
Wienckowski	Natalie	GM	GM			X
Withey	James	Fluke Networks	Fluke Networks	X	X	X
Wu	Peter	Marvell	Marvell	X	X	X
Wucher	Markus	Endress+Hauser	Endress+Hauser	X		X
Xu	Li	Huawei	Huawei	X		
Yseboodt	Lennart	Philips Lighting	Philips Lighting			X
Zerna	Conrad	Frannhofer IIS	Frannhofer IIS	X	X	X
Zielinski	Martin	Emerson Automation Solutions	Emerson Automation Solutions	X	X	X
Zimmerman	George	CME Consulting	Commscope, Aquantia, CME Consulting, Cisco, ADI, BMW, APL Group	X	X	X