

Approved Minutes  
**IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force**  
Interim Meeting  
May 23-24, 2016  
Whistler, BC, Canada  
Prepared by Kent Lusted

**Table of Contents**

Table of Contents .....	1
IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – May 23, 2016: .....	2
IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – May 24, 2016: .....	8
Attendees .....	13

## **IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – May 23, 2016:**

*Prepared by Kent Lusted*

IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet Task Force meeting convened at 9:00 a.m., May 23, 2016, by David Law, IEEE 802.3 Work Group Chair.

Mr. Law welcomed attendees.

David Law appoints Kent Lusted as the recording secretary for the IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet Task Force.

As announced at the March 2016 Plenary meeting, David Law intends to confirm Mark Nowell as the Chair of the IEEE P802.3cd Ethernet Task Force.

### **Motion #1:**

Move to confirm Mark Nowell as the IEEE P802.3cd 50 Gb/s, 100 Gb/s, and 200 Gb/s Ethernet Task Force Chair.

- Moved by: John D'Ambrosia
- Second by: Pete Anslow
- Y: 60 , N: 0 A: 0
- Motion passes! 9:04 a.m.

Introductions were made.

Chair reviewed agenda in [http://www.ieee802.org/3/cd/public/May16/agenda\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/agenda_3cd_01a_0516.pdf)

### **Motion #2:**

Move to approve the agenda:

- Moved by: John D'Ambrosia
- Second by: Thananya Baldwin
- Passed by voice without opposition

Minutes were posted shortly after the meeting. Chair asked if there were any comments on the posted minutes. No one responded.

### **Motion #3:**

Move to approve the March 2016 plenary minutes:

- Moved by: Thananya Baldwin
- Second by: Mike Dudek
- Passed by voice without opposition

Chair appoints Matt Brown as the Chief Editor for the Task Force.

Chair reminded participants to observe meeting decorum. Called for members of the press. No one responded. Photography and recording are not permitted.

Chair reviewed the reflector and web information. Chair noted that a single reflector is used for both Study Groups. Chair reviewed the ground rules for the meeting.

Chair reviewed the attendance procedures. Chair reminded participants to sign into the IEEE Attendance Tool and to sign the book.

Chair reviewed the IEEE structure.

Chair reviewed the Bylaws and Rules slides in [http://www.ieee802.org/3/cd/public/May16/agenda\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/agenda_3cd_01a_0516.pdf)

**IEEE Patent Policy:** Chair reviewed the Patent related slides on the 4 slides contained in the agenda. Chair calls for potentially essential patents. No one responded. Chair read the Guidelines for IEEE WG meetings. No one responded.

**Chair advised the WG attendees that:**

- The IEEE's patent policy is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
- Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
- There may be Essential Patent Claims of which the IEEE is not aware. Additionally, the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.

No one responded.

Chair reviewed the IEEE 802.3 Standards Process.

Chair noted that there is a proposed liaison letter by Paul Kolesar to TIA TR-42 on the optical return loss specifications.

Chair chartered an ad hoc for the P802.3cd Task Force. Chair announced Kent Lusted as the ad hoc chair. Chair indicated that the ad hoc meetings will continue to be a single biweekly meeting on Wednesdays @ 8am PT. Kent Lusted will be sending out the announcements.

Chair reviewed the P802.3cd Ethernet Task Force approved project documents. A timeline has not yet been adopted.

Chair reviewed the adopted objectives. There was a question if the 200G MMF objective contained "four-lane". Kent Lusted noted that motion #11 in the March 2016 minutes attempted to add "four-lane" to the copper cable, backplane and MMF objectives; however, the motion was withdrawn.

Chair reviewed a path towards adopting baseline proposals.

Goals for the meeting:

- Review technical contributions
- Build, assess consensus on proposals
- Consider making some decisions:
  - Baselines
  - New Objectives
  - Nomenclature
- Establish work items for July Meeting

Future Meetings:

- July 2016 Plenary
  - Week of July 24, 2016 – San Diego, CA, USA
- Sept 2016 Interim
  - Week of Sept 12th, 2016 – Fort Worth, Tx
- November 2016 Plenary
  - Week of Nov 7th, 2016 – San Antonio, Tx

Anyone interested in hosting a meeting should contact the Chair or Steve Carlson.

#### **50 Gb/s & NGOATH Study Group Ad-hoc report:**

See [http://www.ieee802.org/3/cd/public/May16/lusted\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/lusted_3cd_01a_0516.pdf)

- Kent Lusted noted that the joint ad hoc meetings will likely resume on June 8, 2016. Details will be announced over the reflector.

#### **Presentation #1:**

“802.3cd Editorial Consideration”, Matt Brown

See: [http://www.ieee802.org/3/cd/public/May16/brown\\_3cd\\_01\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/brown_3cd_01_0516.pdf)

#### **Presentation #2:**

“Nomenclature”, Kent Lusted

See: [http://www.ieee802.org/3/cd/public/May16/lusted\\_3cd\\_02a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/lusted_3cd_02a_0516.pdf)

- Discussed if the terms “200GAUI” and “200GMII” should be defined in P802.3cd or P802.3bs

Paul Kolesar provided a background to the proposed liaison letter to TIA TR-42. Paul reviewed the text in the document (see [http://www.ieee802.org/3/cd/public/May16/kolesar\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/kolesar_3cd_01a_0516.pdf)). There were many questions. Chair asked Paul to build offline consensus.

Break at 10:45 a.m. Resume at 11:05 a.m.

**Presentation #3:**

“Multi-Port Implementations of 50/100/200GbE”, Scott Kipp

See: [http://www.ieee802.org/3/cd/public/May16/kipp\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/kipp_3cd_01a_0516.pdf)

- Discussed the implication of two-lane vs. two-fiber.

**Presentation #4:**

“The Missing Objectives”, Brad Booth

See: [http://www.ieee802.org/3/cd/public/May16/booth\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/booth_3cd_01a_0516.pdf)

- Clarifying questions were asked and answered.
- Jeff Maki offered his support to the presentation.

Chair noted that he intends to take straw polls in the afternoon on these proposed objectives.

Break at 12:16 p.m. Resume at ~1:20 p.m.

Chair asked if there was objection to hearing 2 late presentations received from Rich Mellitz and Steve Trowbridge. No one responded.

Chair noted that Chris Diminco was not able to attend the meeting and that his baseline proposal presentation would be deferred to July meeting and perhaps reviewed during the ad hoc meeting series.

**Presentation #5:**

“OTN Support for 50GbE, next generation 100GbE, and 200 GbE”, Steve Trowbridge

See: [http://www.ieee802.org/3/cd/public/May16/trowbridge\\_3cd\\_01\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/trowbridge_3cd_01_0516.pdf)

**Presentation #6:**

“50GBASE-FR & -LR Specification Proposal”, Chris Cole

See: [http://www.ieee802.org/3/cd/public/May16/cole\\_3cd\\_01\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/cole_3cd_01_0516.pdf)

- Clarifying questions were asked and answered.
- The operating rate and BER target assume the KP4 FEC.

**Presentation #7:**

“Towards 50 Gb/s per lane MMF baseline proposals”, Jonathan King

See: [http://www.ieee802.org/3/cd/public/May16/king\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/king_3cd_01a_0516.pdf)

- Discussed the partition noise effect on FEC.
- Discussed the need to define TDECQ for the MMF PMD.

**Presentation #8:**

“Baseline proposal for the 100 Gb/s MMF objective using two-wavelength PAM4 transmission”, Jonathan Ingham

See: [http://www.ieee802.org/3/cd/public/May16/ingham\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/ingham_3cd_01a_0516.pdf)

- Clarifying questions were asked and answered.

**Presentation #9:**

“100GBASE-SR2 MMF baseline proposal”, Jonathan King

See: [http://www.ieee802.org/3/cd/public/May16/king\\_3cd\\_02a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/king_3cd_02a_0516.pdf)

- Questions were asked about the differences to the 100 Gb/s MMF presentation from Jonathan Ingham.

There was much discussion on the usage model differences (duplex fiber vs. parallel fiber) between the two 100 Gb/s MMF proposals.

Break at 2:45 p.m. Resume at ~3:05 p.m.

**Presentation #10:**

“RS(544,514) FEC performance”, Pete Anslow

See: [http://www.ieee802.org/3/cd/public/May16/anslow\\_3cd\\_01\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/anslow_3cd_01_0516.pdf)

- Clarifying questions were asked and answered
- Discussed the potential changes due to a pre-coder
- Discussed the impact of multi-part link segments

Chair provided an update on the schedule. Chair asked if there was objection to an 8:00 a.m. start on Tuesday. No one objected.

**Presentation #11:**

“FEC coding gain analysis in 50GE &100GbE”, Tongtong Wang

See: [http://www.ieee802.org/3/cd/public/May16/wang\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/wang_3cd_01a_0516.pdf)

- Clarifying questions were asked and answered.

**Presentation #12:**

“Architectural Consideration for 50 GbE and NG 100 GbE”, Ali Ghiasi

See: [http://www.ieee802.org/3/cd/public/May16/ghiasi\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/ghiasi_3cd_01a_0516.pdf)

- Discussed the market need for the 50GAUI-2 solution.

Chair intends to hold straw polls on potential objectives before the meeting breaks for the day, if time allows.

**Presentation #13:**

“50GbE and NG 100GbE PCS and FEC Baseline Proposals”, Gary Nicholl

See: [http://www.ieee802.org/3/cd/public/May16/nicholl\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/nicholl_3cd_01a_0516.pdf)

- Clarifying questions were asked and answered.
- Author noted that the FEC details needed further discussion and would be covered in the next presentation.

**Presentation #14:**

“Technical considerations for FEC Lane Distribution”, Gary Nicholl

See: [http://www.ieee802.org/3/cd/public/May16/nicholl\\_3cd\\_02\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/nicholl_3cd_02_0516.pdf)

- Discussed the 50GbE Use Cases on slide 7.
- Compared and contrasted the symbol vs. bit mux options

**Straw Poll #1:**

I would support adopting the objective for :

- 100 Gb/s SMF over at least 500 meters on two-lanes:
  - 100 Gb/s SMF over at least 500 meters on one-lane:
  - 100 Gb/s SMF over at least 2 kilometers:
  - 50 Gb/s SMF over at least 500 meters on one-lane:
- (Chicago Rules)
  - A: 30 B: 36 C: 33 D: 30
  - Room count: 86

**Straw Poll #2:**

I would oppose adopting the objective for :

- 100 Gb/s SMF over at least 500 meters on two-lanes:
  - 100 Gb/s SMF over at least 500 meters on one-lane:
  - 100 Gb/s SMF over at least 2 kilometers:
  - 50 Gb/s SMF over at least 500 meters on one-lane:
- (Chicago Rules)
  - A: 4 B: 11 C: 1 D: 8

Chair reminded participants of the 8:00 a.m. start on Tuesday morning.

Break at 6:02 p.m.

## **IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet Task Force – May 24, 2016:**

*Prepared by Kent Lusted*

Meeting convened at 8:11 a.m., May 24, 2016, by Mark Nowell, IEEE P802.3cd Task Force Chair.

Chair reviewed the plans for the day. Chair displayed the agenda presentation:

[http://www.ieee802.org/3/cd/public/May16/agenda\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/agenda_3cd_01a_0516.pdf)

### **Presentation #15:**

“50GAUI and CAUI C2C and C2M Baseline Proposals for 50G and Next Gen 100G Ethernet”, Mike Li

See: [http://www.ieee802.org/3/cd/public/May16/li\\_3cd\\_01\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/li_3cd_01_0516.pdf)

- Discussed the impact of symbol vs. bit muxing on the DER value.

### **Presentation #16:**

“COM Parameter Baseline Proposal for Copper Cables”, Chris Roth

See: [http://www.ieee802.org/3/cd/public/May16/roth\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/roth_3cd_01a_0516.pdf)

- Updated presentation “01a” with additional supporters and editorial clarifications.
- There was a request to run the analysis again with the updated COM code.
- There was a request to create a channel reference library on the website. Chair noted that a location on the website will be created.

Chair reminded participants to sign into the IEEE Meeting Attendance Tool and to sign the Task Force attendance book.

### **Presentation #17:**

“COM Analysis on Backplane and Cu DAC Channels”, Ali Ghiasi

See: [http://www.ieee802.org/3/cd/public/May16/ghiasi\\_3cd\\_02a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/ghiasi_3cd_02a_0516.pdf)

- Author noted an error on slide 3 and will send an updated presentation “02a”
- Clarifying questions were asked and answered.

### **Presentation #18:**

“TX differential precoder for 50G/NGOATH”, Raj Hegde

See: [http://www.ieee802.org/3/cd/public/May16/hegde\\_3cd\\_01a\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/hegde_3cd_01a_0516.pdf)

- Discussed the potential benefits and impacts of using the TX precoder with large tap weights
- Discussed the effect of the precoder on correlated burst errors and the impact to a receiver.



**Presentation #19:**

“PAM4 transmitter training protocol”, Adam Healey

See: [http://www.ieee802.org/3/cd/public/May16/healey\\_3cd\\_01\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/healey_3cd_01_0516.pdf)

- Clarifying questions were asked and answered.

Break at 10:23 a.m. Resume at 10:54 a.m.

**Presentation #20:**

“Die Level PMD Specification”, Rich Mellitz

See: [http://www.ieee802.org/3/cd/public/May16/mellitz\\_3cd\\_01\\_0516.pdf](http://www.ieee802.org/3/cd/public/May16/mellitz_3cd_01_0516.pdf)

- Clarifying questions were asked and answered
- There was much discussion regarding measurement at test points at the die pad.

Rich Mellitz noted that there was a mistake in the COM values listed in P802.3bs presentation. He showed the changes. Chair noted that the updated COM model will be posted to the P802.3cd webpage.

**Straw Poll #3:**

I would support nicholl\_3cd\_01a\_0516 as the basis for the 50GbE and 100GbE PCS and FEC architecture, with the exception of leaving the FEC lane count / distribution as TBD

- Yes: 53
- No: 2
- Abstain: 15

**Straw Poll #4:**

I would support the nomenclature per lusted\_3cd\_02b\_0516, slides 5 to 13

- Yes: 43
- No: 17
- Abstain: 23

Chair interprets nomenclature to be terms not the definitions.

Break at 11:50 a.m. Resume at ~1:40 p.m.

**Motion #4:** 1:42 p.m.

Move to adopt nicholl\_3cd\_01a\_0516 as the basis for the 50GbE and 100GbE PCS and FEC architecture, with the exception of leaving the FEC lane count / distribution as TBD

- M: Gary Nicholl
- S: Dave Ofelt
- Technical ( $\geq 75\%$ ),
- Y: 67 N: 1 A: 12
- Results: passes 1:52 p.m.

Chair noted that his interpretation of “basis” is that it indicates the direction of the architecture; also, that nicholl\_3cd\_01a\_0516 is not a complete baseline proposal.

**Motion #5:** 1:53 p.m.

Move to adopt the nomenclature per lusted\_3cd\_02b\_0516, slides 5 to 13

- M: Kent Lusted
- S: Dave Ofelt
- Technical ( $\geq 75\%$ ),
- Y: 65 N: 9 A: 13
- Results: passes 2:01 p.m.

There was discussion on the motion regarding Roman numeral vs. Arabic numeral and the 100GBASE-SR2 term.

**Motion #6:** 2:02 p.m.

Move to adopt the following objective for 100 Gb/s Ethernet PHYs:

- Define a two-lane 100 Gb/s PHY for operation over SMF with lengths up to at least 500m

- M: Brad Booth
- S: Scott Kipp
- Technical ( $\geq 75\%$ ),
- Y: 53 N: 5 A: 24
- Results: passes 2:26 p.m.

There was discussion on the motion regarding a potential distinct identity issue.

**Motion #7:** 2:27 p.m.

Move to adopt the following objective for 100 Gb/s Ethernet PHYs:

- Define a one-lane 100 Gb/s PHY for operation over SMF with lengths up to at least 500m

- M: Brad Booth
- S: Rob Stone
- Technical ( $\geq 75\%$ ),
- Y: 35 N: 23 A: 29
- Results: fails 2:37 p.m.

**Motion #8:** 2:38 p.m.

Move to adopt the following objective for 100 Gb/s Ethernet PHYs:

- Define a 100 Gb/s PHY for operation over SMF with lengths up to at least 2 km

- M: Brad Booth
- S: Rob Stone
- Technical ( $\geq 75\%$ ),
- Y: 48 N: 9 A: 32
- Results: passes 2:52 p.m.

Break at 2:52 p.m. Resume at ~3:15 p.m.

**Motion #9:** 3:19 p.m.

Move to adopt the following objective for 50Gb/s Ethernet PHYs :

- Define single-lane 50 Gb/s PHY for operation over:
  - SMF with lengths up to at least 500 m
- M: Brad Booth
- S: Scott Kipp
- Technical ( $\geq 75\%$ ),
- Y: 35 N: 12 A: 26
- Results: fails 3:30 p.m.

**Motion #10:** 3:31 p.m.

Move to adopt li\_3cd\_01\_0516 as the baseline for 50GAUI and CAUI-2 chip-to-chip and chip-to-module electrical I/O interfaces

- M: Mike Li
- S: Gary Nicholl
- Technical ( $\geq 75\%$ ),
- Y: 75 N: 0 A: 7
- Results: passes 3:42 p.m.

Chair clarified that baseline means that the technical details are sufficient to address an objective in the Task Force. Chair noted that “basis” used in an earlier motion indicates the general direction of the Task Force.

**Motion #11:** 3:49 p.m.

Move to adopt cole\_3cd\_01\_0516.pdf as the baseline to address the 50 Gb/s 10 km SMF objective.

- M: Chris Cole
- S: Ali Ghiasi
- Technical ( $\geq 75\%$ ),
- Y: 54 N: 0 A: 25
- Results: passes 3:54 p.m.

**Straw Poll #5:** 3:55 p.m.

I would support adopting the 2km proposal of cole\_3cd\_01\_0516.pdf as the baseline to address the 50 Gb/s 2 km SMF objective.

- Yes: 56
- No: 2
- Abstain: 26

**Motion #12:** 4:05 p.m.

Move to adopt the 2km proposal of cole\_3cd\_01\_0516.pdf as the baseline to address the 50 Gb/s 2 km SMF objective.

- M: Chris Cole
- S: Paul Kolesar
- Technical ( $\geq 75\%$ ),
- Y: 54 N: 0 A: 28
- Results: passes 4:07 p.m.

**Motion #13:** 4:09 p.m.

Move to adopt king\_3cd\_01a\_0516.pdf as the baseline to address the 50 Gb/s and 200 Gb/s MMF objectives

- M: J. King
- S: J. Ingham
- Technical ( $\geq 75\%$ ),
- Y: 69 N: 0 A: 9
- Results: passes 4:12 p.m.

**Straw Poll #6:** 4:14 p.m.

For 100 Gb/s MMF,

- A. I support the proposal per king\_3cd\_02a\_0516.pdf
- B. I support the proposal per ingham\_3cd\_01b\_0516.pdf
- C. I want more information
- (pick one)
- A: 28 B: 13 C: 33 4:41 p.m.

**Attendance Straw Polls:**

- I will attend the IEEE P802.3cd meetings at the July plenary in San Diego, CA, USA (week of July 24, 2016)
  - Y: 72 M: 10 N: 4
- I will attend the IEEE P802.3cd meetings at the September interim in Fort Worth, TX, USA (week of September 14, 2016)
  - Y: 65 M: 16 N: 2

Chair reviewed the next steps for the Task Force, including closing the remaining baseline proposals and supporting materials for the newly adopted objectives.

**Motion #14:**

Move to Adjourn:

- Moved by: Brad Booth
- Second by: Dave Ofelt
- Passed by voice vote without opposition

Meeting ended at 4:51 p.m.

**Attendees**

<b>P802.3cd, May 2016</b>			<b>23-May-16</b>	<b>24-May-16</b>
<b>Last Name</b>	<b>First Name</b>	<b>Affiliation</b>	<b>Monday</b>	<b>Tuesday</b>
Anslow	Pete	Ciena Corporation	X	X
Baden	Eric	Broadcom	X	X
Balan	Vishnu	nVidia	X	X
Balasubramonian	Venugopal	Marvell	X	X
Baldwin	Thananya	Ixia	X	X
Booth	Brad	Microsoft	X	X
Braun	Ralf-Peter	Deutsche Telekom	X	X
Brooks	Paul	Viavi Solutions	X	X
Brown	Matt	Applied Micro	X	X
Butter	Adrian	Global Foundries	X	X
Caggioni	Francesco	APM	X	X
Chalupsky	David	Intel	X	
Chen	David	Applied Optoelectronics	X	X
Cibula	Peter	Intel	X	X
Cole	Chris	Finisar		X
D'Ambrosia	John	FutureWei, Subsidiary of Huawei	X	X
Dawe	Piers	Mellanox	X	X
Dillard	John	MicroSemi	X	X
Dillow	Daniel	Amphenol	X	X
Donahue	Curtis	UNH-IOL	X	X
Dube	Kathryn	UNH-IOL	X	
Dudek	Mike	QLogic	X	X
Ellison	Jason	the Siemon Company	X	X
Estes	Dave	Spirent Communications	X	X
Farjad	Ramin	Aquantia		X
Fife	James	eTopus Technology	X	X
Ghiasi	Ali	Ghiasi Quantum	X	X

<b>P802.3cd, May 2016</b>			<b>23-May-16</b>	<b>24-May-16</b>
<b>Last Name</b>	<b>First Name</b>	<b>Affiliation</b>	<b>Monday</b>	<b>Tuesday</b>
Gong	Zhigang	O-net	X	
Gupta	Atul	MACOM		X
Gustlin	Mark	Xilinx	X	X
Healey	Adam	Broadcom Limited	X	X
Hegde	Raj	Broadcom	X	X
Hidaka	Yasuo	Fujitsu Laboratories of America	X	X
Huang	Xi	Huawei	X	X
Hutchison	Michael	IXIA	X	X
Ingham	Jonathan	Foxconn Interconnect Technology	X	X
Isono	Hideki	Fujitsu Optical Components	X	X
Issenhuth	Tom	Microsoft	X	X
Johnson	John	Broadcom	X	
Kareti	Upen Reddy	Cisco	X	X
Kimber	Mark	Semtech	X	X
Kolesar	Paul	CommScope	X	
Kopelman	Yaniv	Marvell Semiconductor	X	
Langhammer	Martin	Altera	X	X
Law	David	HPE	X	
LeCheminant	Greg	Keysight Technologies	X	X
Lewis	Dave	Lumentum	X	
Lewis	Jon	Dell	X	
Li	Mike	Intel	X	X
Lim	Jane	Cisco	X	X
Lingle, Jr.	Robert	OFS	X	
Liu	Hai-Feng	Intel	X	X

<b>P802.3cd, May 2016</b>			<b>23-May-16</b>	<b>24-May-16</b>
<b>Last Name</b>	<b>First Name</b>	<b>Affiliation</b>	<b>Monday</b>	<b>Tuesday</b>
Liu	Zhenyu	Credo Semiconductor	X	X
Lusted	Kent	Intel	X	X
Maki	Jeffery	Juniper Networks	X	X
Malicoat	David	HP	X	X
Malkiman	Yonatan	Mellanox	X	X
Matoglu	Erdem	Amphenol	X	X
Mehta	Anil	Brocade	X	X
Mellitz	Richard	Intel	X	X
Muir	Ron	JAE	X	X
Murray	Dale	Lightcounting	X	X
Nicholl	Gary	Cisco	X	X
Nowell	Mark	Cisco	X	X
Ofelt	David	Juniper Networks	X	X
Palkert	Tom	Luxtera - Molex - MoSys	X	X
Pepper	Gerald	Ixia	X	X
Pham	Phong	US Conec	X	X
Pimpinella	Rick	Panduit Corp.	X	X
Regev	Alon	IXIA	X	X
Roth	Christopher	Molex	X	X
Rotolo	Salvatore	ST Microelectronics	X	X
Sakai	Toshiaki	Socionext	X	X
Satake	Toshiaki	US Conec	X	X
Sayre	Edward	Samtech LTD		X
Schube	Scott	Intel		X
Shigematsu	Masayuki	Sumitomo Electric		X
Shrikhande	Kapil	Dell	X	X
Slavick	Jeff	Avago Technologies	X	X
Sommers	Scott	Molex	X	X
Sone	Yoshiaki	NTT	X	X
Stephens	Jeremy	Intel		X

<b>P802.3cd, May 2016</b>			<b>23-May-16</b>	<b>24-May-16</b>
<b>Last Name</b>	<b>First Name</b>	<b>Affiliation</b>	<b>Monday</b>	<b>Tuesday</b>
Stone	Rob	Broadcom	X	X
Swanson	Steve	Corning	X	X
Szczepanek	Andre	Inphi		X
Szeto	William	Xtera	X	X
Tailor	Bharat	Semtech Corp	X	X
Tamura	Kohichi	Oclaro	X	X
Tien	George	AOI	X	X
Tooyserkani	Pirooz	Cisco	X	X
Tracy	Nathan	TE Connectivity	X	X
Trowbridge	Steve	Nokia	X	X
Ulrichs	Ed	Source Photonics	X	
Wang	Tongtong	Huawei	X	
Wang	Xinyuan	Huawei	X	X
Welch	Brian	Luxtera	X	X
Wertheim	Oded	Mellanox	X	X
White	Martin	Cavium		X
Xu	Qing	Belden	X	X
Xu	Yu	Huawei	X	
Yingo	Lin	Applied Optoelectronics	X	X
Zambell	Andrew	Amphenol	X	X
Zivny	Pavel	Tektronix	X	X