IEEE 802.3 Beyond 400 Gb/s Ethernet (B400G) Study Group, March 2021 Electronic Interim Series
Approved Meeting Minutes, Prepared by Tom Issenhuth, John D'Ambrosia

Meeting called to order at 10:02 am ET (all times ET), 01 Mar 2021

Meeting called to order by John D'Ambrosia, SG Chair.

Chair showed IMAT information and asked everyone to sign-in as meeting attendance would be taken from IMAT.

Presentation #1   **Agenda and General Information**
Presenter: John D'Ambrosia
URL: https://www.ieee802.org/3/B400G/public/21_03/agenda_b400g_a_210301.pdf

Chair asked if there were any objections to the agenda, there were none, and the agenda (Slide #2) was considered approved.

Minutes - https://www.ieee802.org/3/B400G/public/21_02/minutes_b400g_a_2102_unapproved.pdf

Chair advised everyone to review their affiliation for IMAT when signing in.
Chair asked if there were any other corrections, there were none.
Chair asked if there were any objections to approving the minutes. There were none, and the minutes were considered approved.

Chair noted that the information regarding the procedures had been sent out, and requested that individuals review the following IEEE SA policies prior to the interim meeting –

- IEEE SA Pre-PAR Patent Policy
- IEEE SA Participation Policy
- IEEE SA Copyright Policy

Chair showed the IEEE SA Pre-PAR Patent Policy slides.
Chair showed the IEEE SA Participation Policy slides.
Chair showed the IEEE SA Copyright Policy slides.

Chair asked if anyone needed to review the policies at that time – there were no requests to do so.

Presentation #2   **Impact of Going Beyond 400G**
Presenter   Brad Booth
URL   https://www.ieee802.org/3/B400G/public/21_03/booth_b400g_02_210301.pdf

Requests to be listed as a supporter during the presentation and discussion.

- Ali Ghiasi – Ghiasi Quantum
- Weiqiang Cheng - China Mobile
- Mark Nowell – Cisco
- Rang-Chen Yu - SiFotonics

General discussion.

Presentation #3   **Requirement for Beyond 400 GbE**
Presenter   Haojie Wang
URL   https://www.ieee802.org/3/B400G/public/21_03/wang_b400g_01a_210301.pdf

Chair requested that slide 7 be updated to include the distance targets for short and medium reaches. Updated presentation noted above.

General discussion.

Presentation #4   **Beyond 400 GbE Project Priorities for Data Center Networks**
Presenter   Rob Stone
URL   https://www.ieee802.org/3/B400G/public/21_03/stone_b400g_01a_210301.pdf

Updated version of the presentation will be provided (noted above) to correct a missing TP2 on slide 8 and add XSR to the list of electric SERDES on slide 9.

General discussion.

Chair called a break at 12:01.

Meeting restarted at 12:06.

D'Ambrosia asked Issenhuth to chair the meeting while he presented. Issenhuth assumed chairing meeting at 12:06 pm.

Presentation #5   **Defining the "Beyond 400 Gb/s Ethernet" Project**
Presenter   John D'Ambrosia
URL   https://www.ieee802.org/3/B400G/public/21_03/dambrosia_b400g_01_210301.pdf

General discussion. D'Ambrosia noted during Q&A that the hypothetical partial list of objectives noted on Slide#10 were only intended to illustrate the presentation's recommendation of developing a single PAR, and that the list of objectives for the project will be determined by the Study Group.

D'Ambrosia resumed chairing the call at 12:37 pm.

Chair reviewed future meetings and discussed their planning and logistics.

Meeting broke at 12:38 pm.

Meeting was reconvened at 10:01 am ET (all times ET), 15 Mar 2021
Meeting called to order by John D'Ambrosia, SG Chair.

Chair showed IMAT information and asked everyone to sign-in as meeting attendance would be taken from IMAT.
Chair noted this meeting is part of the March Plenary session and would count for meeting attendance.
It was noted there is no session password.

Chair advised everyone to review their affiliation for IMAT when signing in.
Chair asked if there were any other corrections, there were none.
Chair asked if there were any objections to approving the minutes. There were none, and the minutes were considered approved.

Chair noted that the information regarding the procedures had been sent out, and requested that individuals review the following IEEE SA policies prior to the interim meeting –

- IEEE SA Pre-PAR Patent Policy
- IEEE SA Participation Policy
- IEEE SA Copyright Policy

Chair showed the IEEE SA Pre-PAR Patent Policy slides.
Chair showed the IEEE SA Participation Policy slides.
Chair showed the IEEE SA Copyright Policy slides.

Chair asked if anyone needed to review the policies at that time – there were no requests to do so.

Robert Lingle noted that he has an updated presentation including additional supporters.

Chair reviewed future meetings and discussed their planning and logistics.

Chair noted he was accidently disconnected from the call and if it happens again to contact Tom Issenhuth who is co-chair of the meeting.

Presentation #6   **BER objective for Beyond 400GbE**
Presenter   Xinyuan Wang
URL   https://www.ieee802.org/3/B400G/public/21_03/wang_b400g_01a_210315.pdf
General discussion.

Presentation #7   **Proposed Objectives for Parallel PMDs**
Presenter   Robert Lingle
URL   https://www.ieee802.org/3/B400G/public/21_03/lingle_b400g_01a_210315.pdf
General discussion.

Robert Lingle noted that he has an updated presentation (note above) including additional supporters.

During the meeting Tom Palkert and Kent Lusted requested to be added as supporters.

Presentation #8   **Considerations on 100m objectives for B400G**
Presenter   Peter Stassar
URL   https://www.ieee802.org/3/B400G/public/21_03/stassar_b400g_01a_210315.pdf
General discussion.

Chair noted that issues of distinct identify would be dependent upon on how specific objectives are worded.

Chair called a break at 12:01.

Meeting restarted at 12:06.

Presentation #9   OTN support for Beyond 400 Gb/s Ethernet
Presenters   Steve Trowbridge and Tom Huber
URL   https://www.ieee802.org/3/B400G/public/21_03/trowbridge_b400g_01a_210315.pdf

An updated presentation will be provided with additional supporters.

General discussion.

Strawpoll #1

- For the following proposed objective, I would support the following –

Support a BER of better than or equal to _____ at the MAC/PLS service interface (or the frame loss ratio equivalent)

Results

a) 10^{-13} 21
b) 10^{-14} 24
c) 10^{-15} 5
d) Better than 10^{-15} 0
e) Need more information   50
f) Abstain   16

144 participants

Chair noted that the task force is a contribution driven organization.

Meeting broke at 12:58 pm.

Meeting was reconvened at 10:04 am ET (all times ET), 22 Mar 2021
Meeting called to order by John D'Ambrosia, SG Chair.

Chair showed IMAT information and asked everyone to sign-in as meeting attendance would be taken from IMAT.

Chair noted that the information regarding the procedures had been sent out, and requested that individuals review the following IEEE SA policies prior to the interim meeting –

- IEEE SA Pre-PAR Patent Policy
- IEEE SA Participation Policy
- IEEE SA Copyright Policy

Chair showed the IEEE SA Pre-PAR Patent Policy slides.
Chair showed the IEEE SA Participation Policy slides.
Chair showed the IEEE SA Copyright Policy slides.

Chair asked if anyone needed to review the policies at that time – there were no requests to do so.

Presentation #10	**Categorization of 5 Criteria Responses**
Presenter	Chris Cole
URL	https://www.ieee802.org/3/B400G/public/21_03/cole_b400g_01b_210322.pdf

General discussion.

Presentation #11	**800G Optics Options**
Presenter	Scott Schube
URL	https://www.ieee802.org/3/B400G/public/21_03/schube_b400g_01_210322.pdf

General discussion.

Presentation #12	**PMA lane versus PCS frame FEC and the resulting impact on guaranteeing performance at transceiver module / host PCB interface**
Presenter	Jim Theodoras
URL	https://www.ieee802.org/3/B400G/public/21_03/theodoras_b400g_01_210322.pdf

General discussion.

Presentation #13	**An Evolutionary Path to B400G PMDs**
Presenter	Ali Ghiasi
URL	https://www.ieee802.org/3/B400G/public/21_03/ghiasi_b400g_01a_210322.pdf

An updated version of the presentation (noted above) will be provided to correct several noted mistakes.

General discussion.

Presentation #14	**Considerations on 200G per lane PAM Signaling**
Presenter	Louis (Yuchun) Lu
URL	https://www.ieee802.org/3/B400G/public/21_03/lu_b400g_01_210322.pdf

General discussion.

Meeting recessed at 12:55 pm.

Meeting was reconvened at 10:00 am ET (all times ET), 29 Mar 2021
Meeting called to order by John D'Ambrosia, SG Chair.

Chair showed IMAT information and asked everyone to sign-in as meeting attendance would be taken from IMAT.

Chair noted that the information regarding the procedures had been sent out, and requested that individuals review the following IEEE SA policies prior to the interim meeting –

- IEEE SA Pre-PAR Patent Policy
- IEEE SA Participation Policy
- IEEE SA Copyright Policy

Chair showed the IEEE SA Pre-PAR Patent Policy slides.

Presentation #15   **On the Technical Feasibility of 200G/Lane Chip-to-Module**
Presenter   Ilya Lyubomirsky
URL   https://www.ieee802.org/3/B400G/public/21_03/lyubomirsky_b400g_01_210329.pdf

General discussion.

Presentation #16   **200G per Lane for beyond 400GbE**
Presenter   Cedric Lam
URL   https://www.ieee802.org/3/B400G/public/21_03/lam_b400g_01a_210329.pdf

Chair suggested an updated version of the presentation with a note on slide 20 explaining the use of the multicolored "uncooled" in the first line of the table would be helpful in the future to those individuals reviewing the presentation that hadn't attending the meeting. Presenter agreed to provide update (noted above).

General discussion.

Presentation #17   **Optical PMD Considerations for 200G Lanes**
Presenter   Vipul Bhatt
URL   https://www.ieee802.org/3/B400G/public/21_03/bhatt_b400g_01_210329.pdf

General discussion.

Chair called a break at 11:52.

Meeting restarted at 12:00.

Presentation #18   **Feasibility of 200 Gb/s per lane electrical interfaces**
Presenter   Adam Healey
URL   https://www.ieee802.org/3/B400G/public/21_03/healey_b400g_01a_210329.pdf

An updated version of the presentation correcting minor editorial issues will be provided (noted above).

General discussion.

Chair reviewed future meetings.

Chair adjourned the session at 12:55 pm, 29 Mar 2021

Attendees (per IMAT)

Name	Employer	Affiliation	1-Mar	15-Mar	22-Mar	29-Mar
Abbott, John	Corning Incorporated	Corning Incorporated	0	1	0	0
Aekins, Rob	Legrand	Legrand	0	1	1	1
Baldwin, Thananya	Keysight Technologies	Keysight Technologies	1	1	1	1
Bhatt, Vipul	II-VI Incorporated	II-VI Incorporated	1	1	1	1
Bliss, Will	Broadcom Corporation	Broadcom Corporation	0	0	1	1
Booth, Brad	Microsoft Corporation	Microsoft Corporation	0	1	1	0
bordogna, mark	Intel	Intel	0	1	0	0
Brooks, Paul	Viavi solutions GmbH	Viavi Solutions	0	1	0	0
Brown, Matthew	Huawei Technologies Canada	Huawei Technologies Canada	1	1	1	1
Bruckman, Leon	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	1	1	1
Calvin, John	Keysight Technologies	Keysight Technologies	0	1	1	1
Carty, Clark	Cisco Systems, Inc.	Cisco Systems, Inc.	0	0	0	1
Castro, Jose	Panduit	Panduit Corp.	0	1	0	0
Chang, Jacky	Hewlett Packard Enterprise	Hewlett-Packard Development Company, L.P.	0	1	0	0
Chang, Xin	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	0	1	0	0
Chang, Yongmao	Inphi Corporation	Source Photonics	1	1	1	1
Chen, Chan	Applied Optoelectronics, Inc.	Applied Optoelectronics, Inc.	1	1	1	1
Choudhury, Golam	OFS	OFS	0	1	1	0
Chuang, Keng Hua	Hewlett Packard Enterprise	Hewlett Packard Enterprise	0	1	0	0
D'Ambrosia, John	Futurewei Technologies	Futurewei Technologies, US Subsidiary of Huawei	1	1	1	1
Dawe, Piers J G	NVIDIA	Nvidia	1	1	1	1
Deandrea, John	Finisar Corporation	Finisar Corporation	1	1	1	1
Dearing, Mark	Leviton Manufacturing Co.	Leviton Manufacturing Co.	0	1	0	0
DeSanti, Claudio	Dell	Dell	0	1	0	0
Dudek, Michael	Marvell	Marvell	0	1	0	0
Effenberger, Frank	Futurewei Technologies	Futurewei Technologies	0	1	0	0
Ewen, John	Marvell	Marvell	1	1	1	1
FAn, DAWEI	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	0	1	0	0
Ferretti, Vincent	Corning Incorporated	Corning Incorporated	0	1	1	1
Geng, Limin	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	0	1	1	1
Ghiasi, Ali	Ghiasi Quantum LLC	Ghiasi Quantum LLC, Inphi	1	1	1	1
Goergen, Joel	Cisco Systems, Inc.	Cisco Systems, Inc.	0	1	1	0
Gorshe, Steven Scott	Microchip Technology, Inc.	Microchip Technology, Inc.	0	1	0	0
Graba, James	Broadcom Corporation	Broadcom Corporation	0	1	0	0
Gustlin, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.	0	1	1	1
Harstead, Ed	Nokia	Nokia	1	1	1	1
Haser, Alexandra	Molex Incorporated	Molex Incorporated	0	1	0	1
He, Xiang	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	1	1	1
Healey, Adam	Broadcom Inc.	Broadcom Inc.	1	1	1	1
Heck, Howard	Intel Corporation	Intel Corporation	0	1	1	0
Hegde, Rajmohan	Broadcom Corporation	Broadcom Ltd.	0	1	0	0
Hidaka, Yasuo	Credo Semiconductor	Credo Semiconductor	1	1	1	1
Horner, Rita	Synopsys, Inc.	Synopsys, Inc.	0	1	0	0

HUANG, QINHUI		Huawei Technologies Co., Ltd	1	1	1	1
Huber, Thomas	Nokia	Nokia	1	1	1	1
Hutchins, Jeff	Ranovus	Ranovus	0	1	0	0
ISHIBE, KAZUHIKO	Anritsu Company	Anritsu Company	0	1	0	0
Isono, Hideki	Fujitsu Optical Components Limited	Fujitsu Optical Components Limited	1	1	1	1
Issenhuth, Tom	Issenhuth Consulting, LLC	Huawei Technologies Co., Ltd	1	1	1	1
Jackson, Kenneth	Sumitomo Electric Device Innovations, USA	Sumitomo Electric Industries, LTD	1	1	0	1
Jiang, Tong	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	0	0	0
Jimenez, Andrew	Anixter Inc.	Anixter Inc.	1	1	1	1
Johnson, John	Broadcom Corporation	Broadcom Corporation	1	1	1	1
Jones, Peter	Cisco Systems, Inc.	Cisco Systems, Inc.	0	1	0	0
Kabra, Lokesh	Synopsys, Inc.	Synopsys, Inc.	1	1	1	0
Kamino, John	OFS	OFS	0	1	1	0
Kao, Chienping	Intel Corporation	Cornelis Networks	0	1	1	1
Kareti, Upen	Cisco Systems, Inc.	Cisco Systems, Inc.	0	0	1	0
Kim, Inho	MaxLinear	MaxLinear	0	1	0	0
Kim, Kihong/Joshua	Hirose Electric (USA), Inc.	Hirose Electric (USA), Inc.	1	1	1	1
Kim, Yongbum	Tenstorrent	Tenstorrent	0	1	0	0
Kimber, Eric	Semtech Ltd	Semtech Ltd	1	1	0	1
Klempa, Michael	University of New Hampshire InterOperability Laboratory (UNH-IOL)	Amphenol Corporation	0	1	0	0
Klingensmith, William		DoD	1	1	0	1
Kochuparambil, Elizabeth	Cisco Systems, Inc.	Cisco Systems, Inc.	0	1	1	0
Kocsis, Sam	Amphenol Corporation	Amphenol Corporation	0	1	1	0
Kota, Kishore	Inphi Corporation	Inphi Corporation	0	1	0	1
Kuschnerov, Maxim		Huawei Technologies Duesseldorf GmbH	1	1	1	1
Lackner, Hans	QoSCom GmbH	QoSCom - Quality in Communications - GmbH	0	1	0	0
Lam, Cedric		Google	1	1	1	1
Latchman, Ryan	MACOM	MACOM	1	0	0	1
Law, David	Hewlett Packard Enterprise	Hewlett Packard Enterprise	1	0	0	1
Le Cheminant, Greg	Keysight Technologies	Keysight Technologies	1	1	1	1
Lee, Sylvanus	Leviton Manufacturing Co.	Leviton Manufacturing Co.	0	1	0	0
Levin, Itamar		Intel Corporation	0	1	1	1
Lewis, David	Lumentum Inc.	Lumentum Inc.	0	1	0	1
Li, Mike-Peng	Intel Corporation	Intel Corporation	0	1	0	0
Lim, Jane	Cisco Systems, Inc.	Cisco Systems, Inc.	0	1	0	1
Lin, Youxi		Huawei Technologies Co., Ltd	0	1	1	0
Lingle, Robert	OFS	OFS	1	1	1	1
Liu, Karen	Lightwave Logic	Lightwave Logic	0	1	1	1
Lotto, Gerald	Synopsys, Inc.	Synopsys, Inc.	0	1	1	1
Lu, Yuchun	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	0	0	1	1
Lusted, Kent	Intel Corporation	Intel Corporation	1	1	1	1
Lyubomirsky, Ilya	Inphi Corporation	Inphi Corporation	1	1	1	1
Mak, Gary	Inphi Corporation	inphi	1	1	1	1
Maki, Jeffery	Juniper Networks, Inc.	Juniper Networks, Inc.	1	1	1	1
Malicoat, David	Malicoat Networking Solutions	Malicoat Networking Solutions; SENKO Advanced Components	1	1	0	0

Maniloff, Eric	Ciena Corporation	Ciena Corporation	1	1	1	1
Marques, Flavio	FURUKAWA ELECTRIC	FURUKAWA ELECTRIC	0	1	1	0
Marris, Arthur	Cadence Design Systems, Inc.	Cadence Design Systems, Inc.	0	1	0	0
MASUDA, TAKEO	OITDA	OITDA	1	1	0	0
Mellitz, Richard	Samtec, Inc.	Samtec, Inc.	0	1	0	0
mi, guangcan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	1	1	0
Milicevic, Mario	MaxLinear	MaxLinear	1	1	1	1
Moorwood, Charles	Keysight Technologies	Keysight Technologies	1	1	1	1
Mu, Jianwei		Hisense	1	1	1	1
Muller, Shimon	Axalume, Inc.	Axalume, Inc.	1	1	1	1
Murty, Ramana	Broadcom Inc.	Broadcom Corporation	1	1	1	1
Muth, Karlheinz	Broadcom Corporation	Broadcom Corporation	1	1	0	1
Nakamoto, Edward	Spirent Communications	Spirent Communications	0	1	0	0
Nering, Raymond	Cisco Systems, Inc.	Cisco Systems, Inc.	0	0	1	1
Nicholl, Gary	Cisco Systems, Inc.	Cisco Systems, Inc.	1	1	0	1
Nicholl, Shawn	Xilinx	Xilinx	1	1	1	0
Noujeim, Leesa		Google	1	0	1	1
Nowell, Mark	Cisco Systems, Inc.	Cisco Systems, Inc.	1	1	1	1
Ofelt, David	Juniper Networks, Inc.	Juniper Networks, Inc.	1	1	1	1
Omori, Kumi	NEC Corporation	NEC Corporation	1	1	1	1
Palkert, Thomas	Macom, Samtec	Samtec-Macom	1	1	1	1
PARK, CHUL SOO	Juniper Networks Inc.	Juniper Networks, Inc.	0	1	1	1
Parsons, Earl	CommScope, Inc.	CommScope, Inc.	0	1	0	0
Parthasarathy, Vasu	Broadcom Corporation	Broadcom Corporation	0	0	1	0
Pepper, Gerald	Keysight Technologies	Keysight Technologies	1	1	1	1
Pham, Phong	US Conec, Ltd.	EastPoint	0	1	0	0
Piehler, David	Dell Technologies	Dell	1	1	1	1
Pimpinella, Rick	Panduit Corp.	Panduit Corp.	0	1	1	1
Pittala, Fabio	Huawei Technologies Duesseldorf GmbH	Huawei Technologies Duesseldorf GmbH	1	1	1	1
Pitwon, Richard	Resolute Photonics	AIO Core	0	0	1	1
Potterf, Jason	Cisco Systems, Inc.	Cisco Systems, Inc.	0	1	0	0
Powell, William	INDEPENDENT	INDEPENDENT	0	1	0	0
Qu, Zhen		Juniper Networks, Inc.	0	1	0	0
Quan, Yu		Huawei Technologies Co., Ltd	0	0	1	0
Rabinovich, Rick	Keysight Technologies	Keysight Technologies	1	1	1	1
Radhamohan, Rajeshmohan	MAXLINEAR INC	MAXLINEAR INC	0	0	0	1
Ramesh, Sridhar	MaxLinear	MAXLINEAR INC	0	1	0	0
Ran, Adee	Cisco Systems, Inc.	Cisco systems	1	1	1	1
Rannow, R K	silverdraft supercomputing	Silverdraft Supercomputing	1	1	1	1
Rechtman, Zvi	Mellanox Technologies	NVIDIA Corporation	1	1	1	1
Ren, Hao	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	1	1	1
Rodes, Roberto		II-VI	0	1	1	1
Sakai, Toshiaki	Socionext Inc.	socionext	0	1	0	1
Sambasivan, Sam	AT&T	AT&T	1	1	1	1
Savi, Olindo	Hubbell Incorporated	Hubbell Incorporated	1	1	1	1
SAWANO, Hiroshi	OITDA (Optoelectronics Industry and Technology Development Association)	OITDA	0	1	0	0
Schube, Scott	Intel Corporation	Intel Corporation	0	0	1	0

She, Qingya	Fujitsu Network Communications	Fujitsu Network Communications	1	1	1	1
Shubochkin, Roman		OFS	0	1	0	0
Shukla, Priyank		Synopsys, Inc.	0	1	1	1
Slavick, Jeff	Broadcom Inc	Broadcom Inc	0	1	0	0
Sommers, Scott	Molex LLC	Molex Incorporated	1	1	1	0
Sone, Yoshiaki	NTT	Nippon Telegraph and Telephone Corporation (NTT)	1	1	1	1
Sorbara, Massimo	GLOBALFOUNDRIES	GLOBALFOUNDIRES	1	1	0	1
Sprague, Edward	Infinera Corporation	Infinera Corporation	1	1	1	1
Stassar, Peter	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	1	1	1
Stone, Robert	Broadcom Corporation	Facebook	1	1	0	1
Sun, Junqing	Credo Semiconductor	Credo Semiconductor	1	1	1	1
Sun, Yi		OFS	0	1	1	1
Swanson, Steven	Corning Incorporated	Corning Incorporated	0	1	0	0
Tailor, Bharat	Semtech Canada Corporation	Semtech Canada Corporation	1	1	1	1
TAKAHARA, TOMOO	FUJITSU LABORATORIES LIMITED	FUJITSU LIMITED	1	1	1	0
Tamura, Kohichi	CIG Japan	CIG	1	0	0	0
Tang, Jin		Huawei Technologies Co., Ltd	1	0	0	0
Terada, Masaru	FURUKAWA ELECTRIC	FURUKAWA ELECTRIC	0	1	1	1
Theodoras, James	HG Genuine	HG Genuine	1	1	1	1
Tooyserkani, Pirooz	Cisco Systems, Inc.	Cisco Systems, Inc.	0	0	1	0
Tracy, Nathan	TE Connectivity	TE Connectivity	1	1	1	1
Tran, Viet	Keysight Technologies	Keysight Technologies	1	1	1	1
Trowbridge, Stephen	Nokia	Nokia	1	1	1	1
Ulrichs, Ed	Intel	Intel	1	1	1	0
Umnov, Alexander	Infinera Corporation	INDEPENDENT	1	1	1	0
Vanderlaan, Paul	UL LLC	UL LLC	0	1	0	0
Voss, Robert	Panduit Corp.	Panduit Corp.	0	1	0	0
Wang, Roy	Hewlett Packard Enterprise	Hewlett Packard Enterprise	0	1	0	0
Wang, Ruoxu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	1	1	1
Wang, Xinyuan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	0	1	1
Weaver, James	Arista Networks	Arista Networks	1	1	1	1
Welch, Brian	Cisco Systems, Inc.	Luxtera	0	1	1	1
Williams, Tom	Acacia Communications	Acacia Communications	1	1	1	1
Withey, James	Fluke Corporation	Fluke Corporation	0	1	0	0
Wu, Mau-Lin	MediaTek Inc.	MediaTek Inc.	1	1	1	1
XIA, Chenyang		Huawei Technologies Co., Ltd	0	1	1	1
Xu, Yu	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	0	0	1	1
Young, James	CommScope, Inc.	CommScope	0	1	0	1
Zebian, Sara		Google	0	0	1	1
Zhang, Bo	Inphi Corporation	Inphi Corporation	1	1	1	1
Zhou, Xiang		Google	1	0	1	1
Zhuang, Yan	Huawei Technologies Co., Ltd	Huawei Technologies Co., Ltd	1	1	1	1