Unapproved Minutes
IEEE 802.3 Next-Gen 100 Gigabit Optical Ethernet Study Group
Plenary meeting
Nov 8 – 10, 2011
Atlanta, GA, USA

Chaired by Dan Dove Minutes prepared by Jonathan King

Nov 8, 2011

The meeting was called to order at 9 a.m., on 8th Nov, 2011 by Dan Dove, Study Group Chair.

Jonathan King volunteered as Recording Secretary for this meeting.

Round of introductions.

Documentation for the Atlanta meeting can be found at:
http://www.ieee802.org/3/100GNGOPTX/public/nov11/index.html

Agenda and General Information
By: Dan Dove, SG Chair
See: dove_01_1111_NG100GOPTX.pdf

Motion to approve the agenda:
M: Dan Dove
S: Jonathan King
Passed by voice without opposition

The Chair explained the importance decorum in the Study Group.
The Study Group was reminded that photographs or recordings are not allowed without permission.
The Chair asked if there are any reporters in the room. No one responded.
The Chair presented the rest of the Agenda and General Information presentation, including directing the attention of the group to familiarize themselves with the IEEE patent policy.

Start of technical presentations, 9.30 a.m.

Presentation #1
Title: Solution Set Analyzer
By: Paul Kolesar, Commscope
See: kolesar_01_1111 ng100goptx.xls

The study group agreed that an explanatory 'read me' page should be added to the spreadsheet, to be uploaded as a revision to the original presentation.

Presentation #2
Title: MMF links, EQ and EDC
By: Jonathan King, Finisar, and Sudeep Bhoja, Broadcom
See: king_01_1111_ng100goptx.pdf

Break for coffee at 11am, recommence at 11.25am

Presentation #3
Title: Simulations of a 100GBase-SR4 Link
By: Ali Ghiasi, Fred Tang, and Sudeep Bhoja, Broadcom
See: ghiasi_01_1111_ng100goptx.pdf
A modified presentation will be uploaded, to match the presented version.

Break for lunch at 11.50am, recommence at 1pm

Presentation #4
Title: Reach Objective for 100G-SR4
By: Jonathan King, Finisar
See: king_02_1111_ng100goptx.pdf

In order to keep to schedule, since Pete Anslow was unavailable at the time his presentation was due to be given, the order of Cole_01_1111 and Anslow_01_1111 was switched.

Presentation #5
Title: 100GE Optics Study Proposal
By: Chris Cole, Finisar
See: cole_01_1111_ng100goptx.pdf
During discussion, the study group agreed to a modification of the summary slide to refer to proposals for study, rather than proposals for development, to better represent the intent of the author.

Break for coffee at 3.05pm, recommence at 3.26pm

Presentation #6
Title: Objectives for Next Generation 100GbE Optical Interfaces
By: Pete Anslow, Ciena, and Steve Trowbridge, Alcatel-Lucent
See: anslow_01_1111_ng100goptx.pdf

Presentation #7
Title: Length objectives and potential PMDs to satisfy those objectives
By: Petar Pepeljugoski, IBM
See: pepeljugoski_01_1111_ng100goptix.pdf

Presentation #8
Title: Investigation of Retimed and Unretimed Interfaces
By: Ali Ghiasi, Broadcom
See: ghiasi_02_1111_ng100goptx.pdf

The Chair presented the agenda for the second day (Nov 9th, 2011) of the meeting.

The Chair opened the floor for discussion and motions

Motions:

Motion 1
"The study group allows the submitted 40G presentations after all 100G business is concluded"
Proposed: Pete Anslow
Seconded: Steve Trowbridge
Motion passed by voice without opposition

Motion 2
"The study group adopts the objective: Provide appropriate support for OTN"
Proposed: Steve Trowbridge
Seconded: Pete Anslow
Yes: 44 No: 0 Abstain: 4
Motion passed

Motion 3
"Table Motion 2"
Proposed: John Petrilla
Seconded: Paul Kolesar
Yes: 16 No: 24 Abstain: 11
Motion failed

Meeting recessed for the day at 6pm, precisely.

Nov 9, 2011

Meeting resumed by the Chair.
The Chair reminded the Study Group of the importance of decorum during the meeting.
The Chair asked if there are any reporters in the room. Scott Kipp responded – as president of Ethernet Alliance, he will be writing an online blog summarizing the decisions and motions at this meeting.
The Study Group was reminded that photographs or recordings are not allowed without permission.
The Chair presented the rest of the Agenda and General Information presentation.

Start of technical presentations, 9.14 a.m.

Presentation #9
Title: System OEM design guidelines for chip to module interfaces
By: Gary Nicholl, Cisco
See: nicholl_01_1111_ng100goptx.pdf

Presentation #10
Title: Multi-generational mid-range optical links
By: Jack Jewel, GreenVCSEL
See: jewel_01_1111_ng100goptx.pdf

Break for coffee at 11.22am, recommence at 11.35am

Presentation #11
Title: Marrying Copper and Optical
By: Mike Dudek, Qlogic, and Chris Cole, Finisar
See: dudek_01_1111_ng100goptx.pdf

Break for lunch at 12.06pm, recommence at 1.10pm

Presentation #12
Title: Considerations for NG 100G SMF Objective
By: Mark Nowell, Cisco
See: nowell_01_1111_ng100goptx.pdf

Presentation #13
Title: 100G Next Gen 2km SM PMD
By: John Petrilla, Avago Technologies
See: petrilla_01_1111_ng1000goptx.pdf

Presentation #14
Title: 1300nm Optics for Short Reach SMF Application
By: John Anderson and Kiyo Hiramoto , Opnext
See: anderson_01_1111_ng100goptx.pdf

Break for coffee at 3.12pm, recommence at 3.40pm

Presentation #15
Title: Next Gen 100G Interconnect : Technical feasibility using Silicon Photonics
By: Tom Palkert, Luxtera
See: palkert_01_1111_ng100goptx.pdf

Wrap-up, straw polls and motions, 4.27pm
By: Dan Dove, SG Chair

Strawpoll 1 (Chicago rules)
A: I'm happy with 100GBASE-LR4 and not interested in a PMD supporting a reach between LR4 and SR4
B: I would like to hear more about Jack Jewell's Mid-wave VCSEL based PMD and encourage additional development.
C: I would like to hear more about John Petrilla's parallel 1310 nm SMF based PMD and encourage additional development.
D: I would like to hear more about Jon Anderson's parallel 1310 nm SMF based PMD and encourage additional development.
A: 1 B: 41 C:48 D:55

Strawpoll 2 (Chicago rules)
A: I would like to hear more about Tom Palkert's parallel 1310 nm SMF based PMD and encourage additional development.
B: I would like to hear more about multi-level optical PMD 1310nm duplex SMF based PMD and encourage additional development
C: I would like to encourage more technical contributions on PMDs supporting a reach between 100m and 10km
D: I would like to encourage more technical contributions on ***Duplex SMF*** PMDs supporting a reach between 100m and 10km
A:48 B:21 C:43 D:35

Strawpoll 3 (Chicago rules)
A: I would be interested in a PMD supporting a 500m reach at 75% the cost of 100GBASE-LR4
B: I would be interested in a PMD supporting a 500m reach at 50% the cost of 100GBASE-LR4
C: I would be interested in a PMD supporting a 500m reach at 25% the cost of 100GBASE-LR4
A:1 B:10 C:40

Meeting recessed for the day at 5.48pm

Nov 10, 2011

Meeting resumed by the Chair at 8.15
The Chair reminded the Study Group of the importance of decorum during the meeting.
The Chair asked if there are any reporters in the room. Scott Kipp, as president of Ethernet Alliance, will be writing an online blog summarizing the decisions and motions at this meeting.
The Study Group was reminded that photographs or recordings are not allowed without permission.
The Chair presented the rest of the Agenda and General Information presentation, including intentions to help define work required, and a time frame for closing in on objectives.

Motion 4
"Moved that the chair request 802.3 to extend our Study Group"
Moved: Mark Nowell
Seconded: Scott Kipp
Yes: 46 No: 0 Abstain: 0

Start of technical presentations on 40G 40km Ethernet 8.31 a.m.

Presentation #16
Title: Objective for Next Generation 100GbE Optical Interfaces SG with scope expended to include 40GbE
By: Pete Anslow, Ciena
See: anslow_02_1111_ng100optx.pdf

Presentation #17
Title: Need for a 40km 40GE SMF Interface40G
By: Gary Nicholl, Cisco
See: nicholl_02_1111_ng100optx.pdf

Presentation #18
Title: Technical feasibility of 40GBASE-ER4 PMD
By: Jon Anderson, Opnext, Chris Cole, Finisar, E Tsumura, SEI
See: anderson_02_1111_ng100optx.pdf

A post deadline contribution on 100G time to market was approved for presentation

Presentation #19
Title: Time to market considerations
By: Chris Cole
See: cole_02_1111_ng100optx.pdf

End of technical presentations

Wrap up
The chair presented his wrap up material, (dove_02_1111_ng100goptx.pdf)
An ad hoc on 100G MMF objectives will be chaired by jonathan King, details will be communicated using the Next Gen 100G reflector.

Next meeting of the study group is during the IEEE interim week of jan 23rd 2012, in Newport Beach, CA. There was some discussion on co-ordination between 802.3bj and the Next Gen 100G optics study group.

Motion to adjourn
M: Jonathan King
S: John Petrilla
Motion passes by voice without opposition

Next-gen 100G Optics Study Group -- Attendee List

Plenary meeting, November 2011, Atlanta, GA

Last Name	First Name	Affiliation	Tuesday	Wednesday	Thursday
			10/8/11	10/9/11	10/10/11
Abbas	Ghani	Ericsson	Y	Y	Y
Abbott	John	Corning Inc	Y	Y	|
Alre	Stephen	Cortina	|	|	|
Amezcua	Adrian	Prysmian	|	|	|
Anderson	Jon	Opnext	Y	Y	Y
Anslow	Pete	Ciena	Y	Y	Y
Anstex	Mike	Altera	|	|	|
Balasubramanian	Vittal	FCI	|	|	|
Baldwin	Thananya	Ixia	|	Y	|
Barrass	Hugh	Cisco	|	|	|
Bennett	Mike	LBNL	|	|	|
Bergett	Chris	Luxtera	Y	Y	|
Bernstein	Gary	Leviton	Y	Y	|
Bhatt	Vipul	Lightwire	Y	Y	Y
Bhota	Sudeep	Broadcom	Y	|	|
Booth	Brad	Dell	|	|	|
Braun	Ralf-Peter	Deutsche Telekom	|	|	|
Breuer	Dirk	Deutsche Telekom	Y	Y	|
Brown	Matt	Applied Micro	|	|	|
Bugg	Mark	Molex	|	|	|
Carlson	John	Inphi	Y	Y	|
Carroll	Martin	Verizon	Y	Y	Y
Chalupsky	David	Intel	|	|	|
Chang	Frank	Vitesse	|	|	|
Chen	Chung	Broadcom	|	|	|
Cheng	Wheling	Juniper Networks	|	|	|
Cheng	Weiying	Tellabs	Y	|	|
Choudhury	Mabud	Commscope	Y	Y	Y

Coenen	Robert	Reflex Photonics			
Cole	Chris	Finisar	Y	Y	Y
Cui	Kai	Huawei	Y	Y	Y
D'Ambrosia	John	Dell			
Dawe	Piers	Iptronics	Y	Y	Y
Diminico	Chris	MC Communications			
Dove	Dan	HP	Y	Y	Y
Dudek	Mike	Qlogic			
Elbakousy	Hesham	Huawei			
Ewen	John	IBM			
Flatman	Alan	LAN Technologies	Y	Y	Y
Ghazisaidi	Navid	Ericsson			
Ghiasi	Ali	Broadcom	Y	Y	Y
Gustlin	Mark	Cisco	Y		
Hajduczenia	Marek	ZTE			
Hamano	Hiroshi	Fujitsu Labs	Y	Y	Y
Healey	Adam	LSI			
Hidaka	Yasuo	Fujitsu Lab of America			
Hiramoto	Kiyo	Opnext	Y	Y	Y
Hu	Kerry	Huawei			
Irwin	Scott	MoSys	Y	Y	Y
Ishiida	Osamu	NTT		Y	Y
Isono	Hideki	Fujitsu Optical Components	Y	Y	Y
Iwadate	Hirotake	Sumitomo Electric	Y	Y	Y
Jewell	Jack	Independent	Y	Y	Y
Jiang	Wenbin	Cosemi	Y	Y	
Jimenez	Andrew	Anixter Inc.			
Jisang	Pork	LS Calde	Y	Y	Y
Kabgyu	Youn	LG Electronics	Y	Y	Y
Kamashiro	Satoru	K Micro	Y	Y	Y
Katz	Walter	Si Soft			
Kimmtli	Myles	Emuley			
King	Jonathan	Finisar	Y	Y	Y
Kipp	Scott	Brocade	Y	Y	Y
Kodama	Satoshi	NTT	Y	Y	Y
Kolesar	Paul	Commscope	Y	Y	
Kono	Masahi	Hitachi			
Kvist	Bengt	Ericsson			
Ladino	Hanz	QosCom			
Larsen	Wayne	Commscope	Y	Y	Y
Latchman	Ryan	Mindspeed	Y	Y	Y

Law	David	HP			
Lawrence	Eric	Nexans Inc			
LeCheminant	Greg	Agilent Technologies			
Lewis	Dave	JDSU	Y	Y	
Li	David	Ligent	Y	Y	
Lindsay	Tom	ClariPHY	Y	Y	Y
Lingle	Robert	OFS	Y	Y	Y
Lusted	Kent	Intel			
Lutz	Sharon	US Conec Ltd	Y	Y	Y
Maggis	Arthur	Cadence			
Maki	Jeffery	Juniper	Y	Y	Y
Mallette	Edwin	BrightHouse Networks			
Marek	Tlalka	Luxtera	Y	Y	
Martin	Arlon	Kotura	Y	Y	Y
McDermott	Thomas	Fujitsu	Y	Y	Y
McDonough	John	NEC America	Y	Y	Y
Meier	Wolfgang	Emerson			
Mohan	Jitendra	National Semiconductor			
Mok	Osa	Innolight	Y	Y	Y
Moore	Charles	Avago Technologies			
Nicholl	Gary	Cisco	Y	Y	Y
Nowell	Mark	Cisco	Y	Y	Y
Ofelt	David	Juniper			
Oomoni	Hirotaka	Sumitomo Electric			
Palkert	Tom	Xilinx/Molex	Y	Y	
Pepeljugoski	Petar	IBM	Y	Y	Y
Pepper	Jerry	Ixia	Y	Y	
Perrie	Randy	OneChip Photonics	N	Y	
Petrilla	John	Avago Technologies	Y	Y	Y
Pimpinella	Rick	Panduit Corp	Y	Y	
Rabinovich	Rick	Alcatel Lucent			
Rategh	Hamid	Inphi			
Regev	Eran	Marvel			
Remein	Duane	Huawei			
Ressl	Michael	Hitachi Cable America	Y	Y	Y
Salunke	Vineet	Cisco	Y	Y	Y
Sambasivan	Sam	AT&T			
Sela	Oren	Mellanox			
Shafaz	Farhad	Xilinx	Y		
Shanbhag	Megha	TE Connectivity			
Shrikhande	Kapil	Dell			

Sprague	Ted	Infinera	Y	Y	Y
Stassar	Peter	Huawei	Y	Y	|
Swanson	Steve	Corning Inc	Y	Y	|
Szczepanek	Andre	Inphi	Y	Y	Y
Tanaka	Naruto	Sumitomo Electric	|	|	|
Teheira	Antonio	NSN	Y	Y	Y
Teipen	Brian	ADVA Optical	Y	Y	Y
Thaker	Pat	Broadcom	|	|	|
Tracy	Nathan	TE Connectivity	Y	Y	Y
Tremblay	Francois	Gennum	Y	Y	Y
Trowbridge	Steve	Alcatel Lucent	Y	Y	Y
Vaden	Sterling	Optical Cable	|	|	|
Vanderlaan	Paul	Nexans Inc	Y	Y	Y
Vareljian	Albert	Xilinx	|	|	|
Walkman	?	Mellanox	|	|	|
Wang	Xiaofeng	PMC Sierra	|	|	|
Wang	Zhongfeng	Broadcom	|	|	|
Warland	Tim	Applied Micro	Y	|	Y
Way	Winston	NeoPhotonics	Y	Y	Y
Wong	CK	FCI Mergeoptics	Y	Y	Y
Woodruff	Bill	Broadcom	|	|	|
Wu	Wendy	Netlogic	|	|	|
Xi	Huang	Huawei	|	|	|
Yungwon	Yang	Terasquare	Y	Y	|
Zhao	Wenyu	CATR China	Y	Y	Y
Zivny	Pavel	Tektronix	|	|	|