Approved Minutes
IEEE P802.3bj 100 Gb/s Backplane and Copper Cable Task Force
Plenary Meeting
July 17-19, 2012
San Diego, California, USA
Prepared by David Chalupsky (Tues, Wed), Kent Lusted (Thurs)

IEEE P802.3bj Plenary meeting convened at 8:51am, Tuesday, July 17, 2012 by John D'Ambrosia, IEEE P802.3bj Chair.

Agenda & General Information
By – John D'Ambrosia
See – http://www.ieee802.org/3/bj/public/jul12/agenda_01a_0712.pdf
- Chair reviewed the agenda.
- Chair asked if there were any reporters in the room. No one responded.
- Introductions – Everyone introduced themselves and stated their affiliation.

Motion #1: Motion to approve the agenda
- Moved by Beth Kochuparambil
- Second by Pavel Zivny
- Approved by voice vote without opposition.

Motion #2: Motion to approve the May 2012 minutes
- Moved by Hugh Barrass
- Second by Pavel Zivny
- Approved by voice vote without opposition.

Chair continued with his introductory presentation
- Goals for the meeting: D1.0 comment resolution, Big Ticket items, joint discussion with NG40G/100G optics SG; lay the groundwork for D1.1 and next meeting.
- Ground Rules
- IEEE Structure, Bylaws & Rules
    - Chair read the Guidelines for IEEE-SA meetings
    - Chair noted that he will check if an update is necessary

IEEE Patent Policy: Chair reads aloud the patent policy text contained in the agenda.
Chair calls for potentially essential patents. No response.

- Chair gives overview of the 802.3 Standards Process. Reviews the project objectives and adopted timeline.
- Review of Action Items from May'12 meeting. All recorded action items were completed.

Presentations are heard on common interest items between 802.3bj and the Next Generation 40G/100G Optics Study Group.

Presentation #1
Title – CAUI-4 Application Requirements
By – Ali Ghiasi
See – http://www.ieee802.org/3/bj/public/jul12/ghiasi_02a_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation. ==ACTION ITEM: Ali to send an update replacing the term "CAUI Classic" with reference to 10Gb/s/lane CAUI.== ==DONE.== ==ACTION ITEM: JOHN D'Ambrosia to arrange update to optics study group on 802.3bj FEC/MTTFPA findings.== ==DONE.==

Presentation #2
Title – 100G SR4 FEC & Legacy
By – John Petrilla
See – http://www.ieee802.org/3/bj/public/jul12/petrilla_01_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation.

Presentation #3
Title – 802.3bj 2nd MDI Proposal
By – Chris Cole
See – http://www.ieee802.org/3/bj/public/jul12/cole_01a_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation. Chair noted that since no comment was received on this topic, it may be entertained by the Editor as a comment from the floor during comment resolution.

Presentation #4
Title – CFP4 modeled performance
By – Merrick Moeller
See – http://www.ieee802.org/3/bj/public/jul12/mcsorley_01_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation. Noted that some simulation not meeting goal; ==ACTION ITEM: speaker agrees to continue work & bring update to next meeting.==

10:56am: Joint session complete. Break while room is reconfigured. Resume at 11:23am
Chair gives control of the meeting over to Adam Healey, Chief Editor, for comment resolution.

Presentation #5
Title – Editor's Report
By – Adam Healey
See – http://www.ieee802.org/3/bj/public/jul12/healey_01_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation.

Presentation #6
Title – Comments #288, 289 EEE Support for 100GBASE-CR10, 40GBASECR4, & 40GBASE-KR4
By – John D'Ambrosia
See – http://www.ieee802.org/3/bj/public/jul12/dambrosia_01_0712.pdf
Discussion – Speaker notes that he is speaking as Chair to drive the process. Clarifying questions were discussed regarding the presentation. Chair notes that he will send an email to the reflector announcing a discussion of potential PAR changes related to this presentation. (email sent at 1.56pm.)

11:58am break for lunch, resume at 1:22pm.

Presentation #6
Title – Comments #294, 296 Proposed Responses
By –   John D'Ambrosia
See – http://www.ieee802.org/3/bj/public/jul12/dambrosia_02_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation. Some discussion applies in common to IEEE P802.3bj and the optics study group.

Presentation #7
Title – MTTFPA Concerns
By –   Mark Gustlin
See – http://www.ieee802.org/3/bj/public/jul12/gustlin_01a_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation.

Presentation #8
Title – Double Burst Error Detection Capability of Ethernet CRC
By –   Roy Cideciyan
See – http://www.ieee802.org/3/bj/public/jul12/cideciyan_01_0712.pdf
Discussion – Presentation related to comment #76. This presentation provides the CRC32 error detection capability utilized in gustlin_01a_0712.pdf.

Discussion of mandatory FEC for CR4/KR4 related to potential remedies listed in gustlin_01a_0712.pdf.

Motion #3 to make FEC transmit encoding mandatory, captured in the comment database for comment 76, passes. See comment file for specifics.

Break at 3:00pm, resume at 3:20pm
Comment resolution continues.

Presentation #9 (related to comments 10, 11, 14-18, 29)
Title – IEEE 802.3bj Draft 1.0 Comments
By –   Kent Lusted
See – http://www.ieee802.org/3/bj/public/jul12/lusted_01_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation.

In response to comment #20, discussion about modifying vs. deleting the Objectives subclause 80.1.2. Straw poll, recorded in the comment database, favors deleting the section.

Break for the day at 5:35pm.

Day 2:
Wednesday July 18, 2012
Chair opens the meeting at 8:15am.
Chair displays the patent policy. Chair calls for potentially essential patents. No response.

Comment resolution continues.
Energy Efficient Ethernet Topic:

As supporting material for several comments, Chair displays dambrosia_01_0712.pdf, and notes that he is speaking as Chair to explain the process, not advocating a particular resolution.
<mark>ACTION ITEM: Chair to arrange an update on the EEE topic to the optics Study Group.</mark> <mark>DONE.</mark>

Several straw polls and motions regarding EEE are captured in the comment database for comment #288.

Motion #4 to modify the Scope of the P802.3bj project to include EEE support for 40 Gb/s and 100 Gb/s operation over backplanes and copper cables passes. See comment file for specifics.
Motion #5 to include EEE support for 40GBASE-CR4/KR4 and 100GBASE-CR10 as part of 802.3bj objectives passes. See comment file for specifics

Editor notes that given the strong consensus to include EEE for the 802.3ba copper/backplane PHYs, comment resolution will proceed with this assumption even though updated project documentation will not be approved until a later meeting.

Chair gives reminder to sign attendance book and IMAT.

Presentation #10
Title – EEE across CAUI (related to comments 249, 252, 253, 255, 257, 260 – 263)
By – Hugh Barrass
See – http://www.ieee802.org/3/bj/public/jul12/barrass_01_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation.

Break at 10:10am to resume at 10:20.
Comment resolution continues.

Break at 12:05pm for lunch to resume at 1:15pm.

Presentation #11
Title – 802.3bj Scrambling Options
By – Mark Gustlin
See – http://www.ieee802.org/3/bj/public/jul12/gustlin_02a_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation.

Presentation #12
Title – Scrambling scheme and FEC bits performance
By – Pete Anslow
See – http://www.ieee802.org/3/bj/public/jul12/anslow_01a_0712.pdf
Discussion – none. <mark>ACTION ITEM: send updated presentation.</mark> <mark>DONE</mark>.

Presentation #13
Title – Comment: Changes to AC Coupling
By – Joel Goergen
See – http://www.ieee802.org/3/bj/public/jul12/goergen_01a_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation.

Presentation #14
Title – Comment: Changes to Test Points
By – Joel Goergen
See – http://www.ieee802.org/3/bj/public/jul12/goergen_02a_0712.pdf

Discussion – Clarifying questions were discussed regarding the presentation.   ==ACTION ITEM: send updated presentation.== DONE.

Break at 3:06pm to return at 3:15pm

Presentation #15
Title –   Analysis of contributed channels using the COM method
By –   Adee Ran
See – http://www.ieee802.org/3/bj/public/jul12/ran_01a_0712.pdf
Discussion –   Clarifying questions were discussed regarding the presentation. .   ==ACTION ITEM: send updated presentation.== DONE.

Presentation #16
Title – Time-Domain Channel Specification: Proposal for Backplane Channel Characteristic Sections
By –   Richard Mellitz
See – http://www.ieee802.org/3/bj/public/jul12/mellitz_01_0712.pdf
Discussion –   Clarifying questions were discussed regarding the presentation.

Break for the day at 7:15pm.

Day 3:
Thursday July 19, 2012
Chair opens the meeting at 8:13am.
Chair displays the patent policy. Chair calls for potentially essential patents. No response.
Chair displays Guidelines for IEEE meetings

Chief Editor resumes comment resolution.
Related to test fixtures & ILD: Chris DiMinico would like to withdraw his comments and continue consensus building before the next meeting.

Kent Lusted takes over secretary responsibilities at 9:55am, 19 July
Break at 10:09am. Resume at 10:40am.

Presentation #17
Title –Editor's Closing Report
By –   Adam Healey
See – http://www.ieee802.org/3/bj/public/jul12/healey_03_0712.pdf
Discussion –   Clarifying questions were discussed regarding the presentation.
Editor reminds audience that review process becomes more restrictive in work group ballot. Editor notes that 3 days are allocated in Geneva for comment resolution.

Chief Editor states that editors grouped non-controversial items in healey_03_0712.pdf and will process as a bucket motion.

Chief Editor explains the plan going forward, that will be captured in a motion:
- Close non-controversial comments via bucket motion
- Generate draft 1.1 from draft 1.0 and closed comments
- Remaining open comments will be applied to Draft 1.1
  - Consider first during draft 1.1 comment resolution
  - Consider clause 94 first, work in reverse order

- Draft 1.1 posted 13 August
- Draft 1.1 review closes 4 Sept 2012. 22 day review

Chief Editor notes that entire draft will be open for comment, not just changed text.

Chief Editor notes CFP4 proposal from joint session will not be considered today.
Action Item: Adam: remind Chris Cole to submit comment against D1.1 for CFP4 DONE.

Chief Editor will generate comment report with open and closed details.

Comment resolution resumes.

Chair resumes control of the task force at 11:00am.

Motion #6
- Move to:
    - Adopt proposed responses for "non-controversial" comments as indicated in healey_03_0712
    - Generate Draft 1.1 from Draft 1.0 and closed comments
    - Apply remaining open comments against Draft 1.0 to Draft 1.1
    - Initiate second Task Force review
- M: A. Healey
- S: B. Booth
- Technical (>= 75%)
- All in the room Y: 63, N: 0 , A: 1
- Results: PASSES

Presentation #18
Title – Proposed Changes to PAR / 5C
By –   John D'Ambrosia
See – http://www.ieee802.org/3/bj/public/jul12/dambrosia_03a_0712.pdf
Discussion – Clarifying questions were discussed regarding the presentation. Chair reviewed par_01_0712.pdf. Action item: Chair to update with dambrosia_03a_0712 DONE.

Motion #7
Move to allow Chair to add an additional note to section 8.1 of the PAR that states "The amendment will comply with IEEE Std 802, IEEE Std 802.1D, and IEEE Std 802.1Q."
- Technical >=75%
- M: P Anslow
- S: P. Zivny
- All in the room: Yes: 67   No: 0   Abstain : 2
- Results: PASSES

Motion #8
Move to approve changes to 5 Criteria as noted on Slide 7 (Broad Market Potential), Slide 8 (Compatibility), and Slide 9 and slide 10 (Distinct Identity) of dambrosia_03a_0712.pdf
- Technical >=75%
- M: B. Holden
- S: P. Anslow

- All in the room: Yes: 68   No: 0   Abstain : 0
- Results: PASSES

Motion #9
- Move:
    - the Task Force submit the revised project documentation (PAR, 5C, Objectives) to the 802.3 Working Group for approval.
    - the Task Force request that the 802.3 Working Group chair pre-submit the revised PAR to the 802 Executive Committee for consideration at the November 2012 Plenary Session.
- Technical >=75%
- M: P. Anslow
- S: H. Barrass
- All in the room: Yes: 65   No: 0   Abstain : 0
- Results: PASSES

Straw Poll #1
Will you attend the Interim meeting in Geneva the week of September 23rd 2012?
TF name: 802.3bj
Yes: 41
Probably yes: 12
Probably no: 10
No: 2
Chair notes that interim will have a workshop on Saturday prior to meeting.

Straw Poll #2
Will you attend the plenary meeting in San Antonio the week of November 12th 2012?
TF name: 802.3bj
Yes: 48
Probably yes: 14
Probably no: 1
No: 1

No objection to chair taking a photo for historical records.

Chair thanks Dave Chalupsky for his service as Secretary.

Motion #10: Motion to adjourn
M: Adee Ran
S: Dave Chalupsky
Motion passes by voice without opposition

Meeting adjourned at 11:45am, July 19, 2012.

May 12 Action Items:

Volunteer	Action	Date Assigned	Status
Chris Cole	Identify source of CFP4 cable assemblies for 100GBASE-CR4 from which channel data may be measured.	5/17/2012	Done (Greg McSorely/Amphenol to provide)
Hugh Barrass	Notify reflector and lead consensus-building conference calls to address EEE issues raised in barrass_01_0512.	5/18/2012	Done (with Mike Bennett)
Mark Gustlin	Notify reflector and lead consensus-building conference calls to address MTTFPA issues raised in cideciyan_01_0512.	5/18/2012	Done
Mark Gustlin	Notify reflector and lead consensus-building conference calls to address scrambler issues raised in cideciyan_02_0512.	5/18/2012	Done
Chris Di Minico	Notify reflector and continue consensus-building conference calls on channel qualification issues raised in diminico_02a_0512.	5/18/2012	Done
Charles Moore	Send updated presentation (moore_01)	5/18/2012	Done

July 12 Action Items:

Volunteer	Action	Date Assigned	Status
John D'Ambrosia	Arrange update to optics study group on 802.3bj FEC/MTTFPA findings.	7/17/2012	Done
Merrick Moeller	Provide updated CFP4 simulation results at next meeting	7/17/2012	
John D'Ambrosia	Chair to arrange an update on the EEE topic to the optics Study Group.	7/18/2012	Done
Pete Anslow	Send update to anslow_01_0712.pdf	7/18/2012	Done
Chris DiMinico	Related to test fixtures & ILD: continue consensus building before the next meeting. Send meeting announcements to reflector.	7/19/2012	Done
Adam Healey Chris Cole	(Adam to remind) Chris to submit comment against D1.1 for the CFP4 CR4 MDI.	7/19/2012	Done

Attendee List

Last Name	First Name	Affiliation	# attended: 69 7/17/2012 Tuesday	68 7/18/2012 Wednesday	63 7/19/2012 Thursday
		IEEE 802.3bj 100Gb/s Cu & BP TF, July 2012 Plenary			
Abbas	Ghani	Ericsson, UK	x	x	x
Anslow	Pete	Ciena Corporation		x	x
Armenta	Luis	ANSYS, Inc.	x		
Balasubramanian	Vittal	Brocade	x	x	x
Barnett	Barry	IBM	x	x	x
Barrass	Hugh	Cisco	x	x	x
Ben-Artsi	Liav	Marvell	x	x	x
Bennett	Mike	LBNL	x	x	
Bliss	Will	Broadcom	x	x	x
Breuer	Dirk	Deutsche Telekom		x	
Brown	Matt	Applied Micro	x	x	x
Bugg	Mark	Molex	x	x	
Casher	Patrick	Molex	x	x	x
Chalupsky	David	Intel	x	x	x
Chang	Frank	Vitesse		x	x
Chang	Jacky	HP	x	x	x
Chen	Qi	Lorom Group	x	x	x
Cheng	Wheling	Juniper Networks	x	x	x
Cideciyan	Roy	IBM	x	x	x
Cook	Charles	CenturyLink			x
Dabiri	Dariush	Applied Micro	x		
D'Ambrosia	John	Dell	x	x	x
Dawe	Piers	IPtronics		x	x
Diab	Wael	Broadcom	x	x	x
DiMinico	Christopher	MC Communications/Leoni	x	x	
Donahue	Curtis	UNH - IOL	x	x	x
Dudek	Mike	QLogic	x	x	x
Dupuis	Mark	Madison Cable	x	x	
Erba	Simone	ST Microelectronics	x	x	x
Ewen	John	IBM	x	x	x
Farhoodfar	Arash	Cortina Systems			x
Goergen	Joel	Cisco	x	x	
Gustlin	Mark	Xilinx	x	x	x
Hidaka	Yasuo	Fujitsu Lab of America	x	x	
Holden	Brian	Kandou Bus	x	x	x
Horner	Rita	Synopsys	x	x	
Huang	Xi	Huawei	x	x	x
Irwin	Scott	MoSys Inc.	x	x	x
Katz	Walter	Signal Integrity Software	x	x	x
Kawatsu	Yasuaki	Hitachi-Cable	x	x	x

Keeley	James	LSI	x	x	x
Kimmitt	Myles	Emulex	x		
Kochuparambil	Elizabeth	Cisco Systems	x	x	x
Koenen	David	HP	x	x	
Lackner	Hans	QoSCom	x		x
Latchman	Ryan	Mindspeed		x	
Li	Mike	Altera	x	x	x
Liu	Zhenyu	Marvell Semiconductor	x	x	x
Lusted	Kent	Intel	x	x	x
Malkiman	Yonatan	Mellanox	x	x	x
Marris	Arthur	Cadence	x	x	x
Meier	Wolfgang	Emerson Network Power EC	x	x	x
Mellitz	Richard	Intel	x	x	x
Moeller	Merrick	Amphenol	x	x	
Moore	Charles	Avago Technologies	x		x
Nagapudi	Venkatesh	Applied Micro	x		
Ofelt	David	Juniper Networks	x	x	x
Palkert	Tom	Xilinx, Luxtera, Molex			x
Parthasarathy	Vasudevan	Broadcom	x		
Patel	Pravin	IBM	x	x	x
Pickles	Tim	Surtec America		x	
Pillar	Velu	Broadcom		x	x
Rabinovich	Rick	Alcatel-Lucent	x	x	x
Ran	Adee	Intel	x	x	x
Ressl	Michael	Hitachi Cable America			x
Sela	Oren	Mellanox	x	x	x
Seth	Siddharth	Inphi	x		
Shanbhag	Megha	TE Connectivity	x	x	x
Slavick	Jeff	Avago Technologies	x	x	x
Sommers	Scott	Molex	x	x	x
Sprague	Ted	Infinera			x
St. Peter	Matthew	Radisys	x	x	x
Stevens	Daniel	Fujitsu Semiconductor			x
Takatori	Hiroshi	Futurewei	x	x	
Tawa	Katsuhisa	Sumitomo			x
Tlalka	Marek	Mindspeed	x		
Toyoda	Hidehiro	Hitachi	x	x	x
Tracy	Nathan	Tyco Electronics	x	x	x
Tremblay	Francois	Semtech		x	
Trowbridge	Steve	Alcatel-Lucent		x	x
Valliappan	Magesh	Broadcom	x	x	x
Wagner	Bob	Panduit Corp.	x		
Wang	Zhongfeng	Broadcom	x	x	x
Zambell	Andrew	FCI	x	x	x
Zivny	Pavel	Tektronix	x	x	x