Unapproved Minutes IEEE P802.3ba Task Force January 23-25, 2008 Interim Meeting Portland, Oregon

Prepared by: Trey Malpass

Meeting convened at 9:00 AM, Wednesday, January 23, 2008.

Agenda & General Information

By – John D'Ambrosia See – agenda_01_0108.pdf

- Introductions Everyone introduced themselves
- Appointed Secretary Trey Malpass volunteered as Secretary
- Bob Grow, 802.3 WG Chair, appointed John D'Ambrosia as Task Force Chair, and asked for confirmation from the Task Force.
 - There was no discussion from the group
 - o Appointment approved by voice vote without objection
- Ilango Ganga (Intel) made some comments about meeting registration procedures and lunch arrangements
- Motion to approve the agenda-
 - Moved by David Law, 2nd by Steve Trowbridge
 - Approved by voice vote without objection
- Motion to approve the November, Atlanta Plenary meeting minutes
 - o Moved by Larry Green, 2nd by Frank Chang
 - Approved by voice vote without objection
- Chair reviewed the Task Force decorum and rules and asked if members of the press were present; none noted.
- Chair reviewed the Task Force organization
- Goals for meeting
 - Project organization
 - Progress towards generating D1.0
 - Hear Proposals
 - Hear Technical Presentations
 - Identify "big ticket" items
 - Review liaison from ISO / IEC JTC 1/SC25/WG3
 - Lay groundwork for the next meeting
- Ground Rules reviewed by Chair
- IEEE Structure, Bylaws & Rules reviewed by Chair
- IEEE Patent policy
 - o Chair showed the five slides to the body, reading slides 1 and 5 aloud
 - o The Chair advised the Task Force that:

- The IEEE's patent policy is consistent with the ANSI patent policy and 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 encouraged;
- There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither 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.
- The chair provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard. No one came forward.
- The Chair reviewed rules regarding voting privileges; 15 first-time IEEE meeting attendees were noted.
- Chair reminded the Task Force to make sure they declared their affiliation
- Task Force function and IEEE Standards Process Flow
 - Function of the Task Force and the completed steps were reviewed
- Reviewed Approved Project Documents and Objectives from the Study Group phase
- Schedule of presentations was reviewed; Chris Cole has requested time for an additional presentation; no objection from the group was noted.
- The Chair will present moorwood_01_0108.pdf on behalf of the author.

Title – Reach Ad Hoc Update

By – Andy Moorwood, Extreme Networks

See – moorwood_01_0108.pdf

Presentation #2

Title – Liaison report from ISO/IEC JTC 1/SC 25/WG 3 to IEEE 802.3

By – Alan Flatman, LAN Technologies

See – 3n856A.pdf

Discussion - The Chair appointed Peter Pepeljugoski to lead an ad hoc group to discuss this topic and draft a proposed response for an informal communication.

Break at 10:08 AM Reconvened at 10:46 AM

Presentation #3

Title – The IEEE P802.3ba Task Force

By – John D'Ambrosia, Force10 Networks

See – dambrosia_01_0108.pdf

Presentation #4

Title – OM4 multimode fiber standardization

By – Gerard Kuyt, Draka Comteg

See – kuyt_01_0108.pdf

Title - Positioning 40 and 100 GbE in data center inter-switch link applications and

40GbE PMD recommendations

By – Alessandro Barbieri, Cisco

See – barbieri_01_0108.pdf

Alessandro has updated his presentation and will provide the new file for uploading to the webpage.

The Chair took a poll to see how many people may be interested in an ad hoc meeting to discuss the proposed objectives from this presentation; there were 51 people indicating interest. The ad hoc will need to evaluate if any changes to the 5 Criteria would be necessary if the proposed objectives were adopted.

Break for lunch at 12:30 PM Reconvened at 1:30 PM

Presentation #6

Title – Lane Bonding Considerations

By – Larry Green, Ixia See – green_01_0108.pdf

Presentation #7

Title – Aggregation at the Physical Layer

By – Howard Frazier, Broadcom

See – frazier_01_0108.pdf

Break at 2:45 PM

Reconvened at 3:05 PM

Presentation #8

Title – PBL Solution for HSE By – Trey Malpass, Huawei See – malpass_01_0108.pdf

Presentation #9

Title – 100GE and 40GE PCS and MLD Proposal

By – Mark Gustlin, Cisco See – gustlin_01_0108.pdf

Presentation #10

Title - MLD (CTBI) Updates - MTTFPA

By – Mark Gustlin, Cisco See – gustlin_02_0108.pdf

Presentation #11

Title – Wander in MLD (CTBI) encoded links

By – Pete Anslow, Nortel See – anslow_01_0108.pdf

Title - 40 GbE and 100 GbE PCS Considerations: Key questions to be answered

concerning OTN mapping

By – Steve Trowbridge, Alcatel-Lucent

See – trowbridge_01_0108.pdf

Presentation #13

Title – OTN Support for High Speed Ethernet

By – Trey Malpass Huawei See – malpass_02_0108.pdf

Meeting breaks for the day at approximately 6:40 PM

Meeting reconvenes at 9:00 AM, Thursday, January 24, 2008.

The Chair reminded the group where to find the patent policy slides on the IEEE website. The chair asked the group if there were any patent or IP disclosures; none were noted.

Presentation #14

Title – 40/100G Architecture and Interfaces Proposal

By – Ilango Ganga, Intel See – ganga_01_0108.pdf

John D'Ambrosia turned over Chair responsibilities to llango Ganga during the next presentation.

Presentation #15

Title – Consideration for Electrical Interfaces

By – Joel Goergen, Force10 Networks (presented by John D'Ambrosia)

See – goergen_01_0108.pdf

John D'Ambrosia re-assumes Chair responsibilities.

Break at 10:00 AM

Reconvened at 10:15 AM

Presentation #16

Title – A Starting Point for a Common Electrical Interface for Nx10 Higher-Speed

Ethernet

By – Gourgen Oganessyan, Quellan

See – oganessyan_01_0108.pdf

Chris DiMinico will lead an ad hoc group to define test points for electrical and optical interfaces and report back to the group.

Title – Common Electrical I/F Proposal

By – Tom Palkert, Luxtera See – palkert_01_0108.pdf

Presentation #18

Title – Architectural Implications of Retimed, Limiting, and Linear Interface for nx10G

By – Ali Ghiasi, Broadcom See – ghiasi_01_0108.pdf

Ali will make some corrections to the presentation and send the new file for upload.

Presentation #19

Title – Overcoming Jitter Budget Issue with Use of "SLI" for nx10G Interface

By – Ali Ghiasi, Broadcom See – ghiasi_02_0108.pdf

Break for lunch at 12:00 Noon Reconvened at 1:00 PM

Presentation #20

Title – Retimed Interface Considerations for IEEE P802.3ba

By – Ryan Latchman, Gennum See – latchman_01_0108.pdf

Ryan will make some corrections to the presentation and send the new file for upload.

Presentation #21

Title – Feasibility of 40/100G Heterogeneous System based on Channel Data

By – Hiroshi Takatori, PhyCore Technology

See – takatori_01_0108.pdf

Presentation #22

Title – Multi-Lane PMD Reliability and Partial Fault Protection (PFP

By – Wenbin Jiang, Huawei See – jiang_01_0108.pdf

Break at 3:25 PM

Reconvened at 3:38 PM

Presentation #23

Title – User Perspective for Requirements for a PMD to Achieve 100m over OM3 Fiber

By – Petar Pepeljugoski, IBM See – pepeljugoski_01_0108.pdf

Petar will make some corrections to slide 6 of the presentation if necessary and send the new file for upload. Petar will also provide a reference to his paper.

Title – 100GE 10km SMF Technology Alternatives

By – Chris Cole, Finisar See – Cole_01_0108.pdf

Presentation #25

Title – SMF PMD Discussion
By – Matt Traverso, Opnext
See – traverso_01_0108.pdf

Polls regarding future meetings were conducted at this point.

Polls:

- New Attendees
 - How many new attendees were in the meeting? 16
 - How many of the new attendees plan to continue attending? 14
 - Do any of the new attendees plan to attend other 802.3 TF meetings? 0
- March meeting
 - How many people plan to attend the March Plenary in Orlando? 83
 - How many may attend? 4
 - How many people plan to attend the FrameMaker tutorial session? 9
- May meeting
 - How many people plan to attend the May Interim in Munich (Monday, May 12th through Friday, May 16th, 2008)? - 59
 - How many may attend? 24
 - How many will not attend? 4
- September meeting
 - How many people plan to attend the September Interim in ChengDu, China (Monday, September 15th through Friday, September 19th, 2008)? - 38
 - How many may attend? 35
 - How many will not attend? 7

Meeting breaks for the day at 5:54 PM

Meeting reconvenes at 8:30 AM, Friday, January 25, 2008.

The Chair made some opening comments regarding the plan for the day and reminded the group where to find the patent policy slides on the IEEE website. The group was asked again if there are any patent or IP disclosures; none were noted.

Presentation #26

| Title – | Power | budget | estimation | using | DML | for | 10km | & | 4km | reach | in | 100G | SMF |
|---------|--------|--------|------------|-------|-----|-----|------|---|-----|-------|----|------|-----|
| | transm | ission | | | | | | | | | | | |

By – Hideki Isono, Fujitsu See – isono_01_0108.pdf

Title – 4x25G SMF Optics: Channel Spacing Considerations

By – John Johnson, CyOptics See – johnson_01_0108.pdf

John will make some corrections to the presentation and send the new file for upload.

Presentation #28

Title – 100GE 40km SMF Technology Limitation

By – Chris Cole, Finisar See – Cole_02_0108.pdf

Break at 10:15 AM

Reconvened at 10:30 AM

Presentation #29

Title – IEEE802.3ap Jitter Specification Is Sufficient And Inclusive Of Package Crosstalk

for IEEE802.3ba Systems

By – Rich Mellitz, Intel See – mellitz_01_0108.pdf

Presentation #30

Title – 802.3ba Cu specifications

By – Chris DiMinico, MC Communications

See – diminico_01_0108.pdf

Chris will make some corrections to the presentation and send the new file for upload. Chris will also provide some additional 10 meter QSFP cable data for the task force to use.

Presentation #31

Title – Data Centre Link Survey

By – Alan Flatman, LAN Technologies

See – flatman 01 0108.pdf

Break for lunch at 11:55 AM Reconvened at 12:45 PM

Presentation #32

Title – High Speed Ethernet Link Loss

By – Scott Kipp, Brocade See – kipp_01_0108.pdf

The Chair reviewed the issues that need to be addressed going forward (3 slides from agenda_01_0108.pdf). Collaboration was encouraged using the email reflector between meetings.

Straw Polls:

Straw Poll 1: (Mike Dudek)

The architecture should be aimed at lane counts of 10, 4, 2, and 1 for 100G and 4, 2, and 1 for 40G.

Yes -48; No -7; Abstain -23

Break at 2:35 PM

Reconvened at 2:52 PM

Straw Poll 2: (Wenbin Jiang)

Should the Task Force consider implementations for partial fault protection?

Yes - 8; No - 29; Abstain - 36

Straw Poll 3: (Ali Ghiasi)

A. Should the Task Force define an electrical PCS-to-PMA interface?

Yes - 1; No - 2; Undecided - 44; Abstain - 20

B. Should the Task Force define an electrical PMA-to-PMD interface?

Yes - 7: No - 11: Undecided - 34: Abstain - 16

During discussion of Straw Poll 3.B, the Chair turned over Chair responsibilities to David Law. After Straw Poll 3.B completed, John D'Ambrosia re-assumed chair responsibilities.

Future Meetings:

- March 2008 Plenary
 - o Tuesday Thursday, March 18 − 20
 - Caribe Royale Orlando All Suites Resort and Convention Center
 - o Orlando, FL, USA
- May 2008 Interim
 - Hosted by Linear Technology
 - Proposed Week of May 12 16
 - Munich, Germany
- July 2008 Plenary
 - o July 13 18
 - Hyatt Regency Denver at the Colorado Convention Center
 - o Denver, CO, USA
- Sept 2008 Interim
 - Hosted by Huawei
 - o Week of Sept 15
 - o ChengDu, China
- Nov 2008 Plenary
 - o Nov 9 14
 - Hyatt Regency Dallas at Reunion
 - o Dallas, Tx, USA

Alessandro Barbieri reported the results of an ad hoc held earlier in the week. The presentation will be uploaded as barbieri_02_0108.pdf.

Petar Pepeljugoski reported the results of an ad hoc held to discuss a response to the ISO liaison. The presentation will be uploaded as pepeljugoski_02_0108.pdf.

Motion 1: Move that 802.3ba approve the text in pepeljugoski_02_0108 with editorial license granted to the Chair (or his appointed agent) as an informal communication by the Chair to ISO/IEC JTC 1/SC 25/WG 3

Moved by – Petar Pepeljugoski Second by – Scott Kipp

Technical (≥ 75%)

Yes -35 No -3 Abstain -14

Motion passes.

Motion to adjourn – moved by Larry Green; 2nd by Mike Dudek. Approved by acclamation. Meeting adjourns at 4:47 PM on Friday, January 25, 2008.

Attendance:

| | | | | Interim | | | |
|----------------|------------|-------------------------------------|-------------|-----------|-----------|--|--|
| | | | Portland | | | | |
| | P802.3ba | Attendance Sheet | 1/23/2008 | 1/24/2008 | 1/25/2008 | | |
| Last Name | First Name | Affiliation | Wed | Thu | Fri | | |
| Abbas | Ghani | Ericsson, UK | Х | Х | Х | | |
| Abbott | John | Corning | X | X | X | | |
| Abbott | Justin | Gennum | X | X | X | | |
| Akasaka | Youichi | Fujitsu Labs | X | X | X | | |
| Alping | Arne | Ericsson AB | X | X | X | | |
| Anslow | Pete | Nortel | X | X | X | | |
| Armistead | Ashby | Google | X | X | X | | |
| Badihi | Avner | Xloom Communications | X | | X | | |
| Baldwin | Thananya | Ixia | X | Х | X | | |
| Barbieri | Alessandro | Cisco | X | Λ | X | | |
| Barrass | Hugh | Cisco | ^ | Х | X | | |
| Belhadi | Med | Cortina Systems | | X | X | | |
| Booth | Brad | AMCC | | | X | | |
| | | | | | X | | |
| Braun | Ralf-Peter | Deutsche Telekom, T-Systems MERITEC | X | X | ^ | | |
| Cady | Ed | | X | X | | | |
| Carroll | Martin | Verizon | X | X | X | | |
| Chang | Frank | Vitesse | X | X | Х | | |
| Cole | Chris | Finisar | X | X | | | |
| Coleman | Doug | Corning | X | X | | | |
| Congdon | Herb | Tyco Electronics | Х | Х | X | | |
| Dada | Faisal | JDSU | X | Х | X | | |
| D'Ambrosia | John | Force 10 Networks | Х | Х | X | | |
| Dawe | Piers | Avago Technologies | X | Х | Х | | |
| Diab | Wael | Broadcom | X | | | | |
| DiMinico | Chris | MC Communications/LEONI | | Х | Х | | |
| Dove | Dan | DoveNetworking - Procurve by HP | | | X | | |
| Dudek | Mike | JDSU | X | X | X | | |
| Ellett | James | Cisco Systems | X | Χ | Χ | | |
| Ewen | John | IBM | X | Х | Χ | | |
| Fiere | Julien | Merge Optics | X | Х | Х | | |
| Fischer | Thomas | Nokia Siemens Networks | X | Χ | Χ | | |
| Flatman | Alan | LAN Technologies | | Χ | Χ | | |
| Ganga | llango | Intel | X | Χ | Χ | | |
| Ghiasi | Ali | Broadcom | | Х | | | |
| Giannakopoulos | Dimitris | AMCC | X | Χ | Χ | | |
| Green | Larry | lxia | X | | Х | | |
| Grow | Bob | Intel | Х | Х | Х | | |
| Gustlin | Mark | Cisco | Х | Х | Х | | |
| Hays | Robert | Intel | | Х | | | |
| Healey | Adam | LSI | | X | | | |
| Helster | David | Tyco Electronics | Х | X | Х | | |
| Hornbuckle | Craig | Sierra Monolithics | X | X | | | |
| Horner | Rita | Avago Technologies | X | X | Х | | |

| Hughes | Robert | Phyworks | | Х | |
|------------------------|-------------------|-----------------------------|---|---|---|
| Ishida | | | Х | Х | Х |
| Isono | Hideki | Fujitsu Ltd. | Х | Х | Х |
| Jaeger | John | Infinera | | Χ | |
| Jewell | Jack | JDSU | Х | Χ | Х |
| Jiang | Wenbin | Consulting for Huawei | Х | Х | Х |
| Johnson | John | CyOptics | Х | Χ | Х |
| Kang | Tae-kyu | ETRI | Х | Х | Х |
| Kawatsu | Yasuaki | Hitachi-Cable | Х | Χ | Х |
| Keck | Steven | Stratalight | Х | Χ | |
| Kengo | Matsumoto | Sumitomo Electric Lab | | | Х |
| King | Jonathan | Finisar Corp. | Х | Х | |
| Kipp | Scott | Brocade | Х | | Х |
| Kobayashi | Shoukei | NTT | Х | Х | Х |
| Kojima | | | Х | Х | |
| Kolesar | Paul | CommScope | Х | Х | Х |
| Krishnamurthy | Subi | Force 10 Networks | X | | |
| Kuyt | Gerard | Draka Comteq | X | Х | |
| Latchman | Ryan | Gennum | X | | Х |
| Li | Mike | Altera | X | Х | X |
| Li | Zeng | Huawei | X | X | X |
| Lingle, Jr. | Robert | OFS | X | X | X |
| Lynch | Jeffrey | IBM | | X | |
| Maki | Jeffery | Juniper Networks | X | X | Х |
| Malpass | Trey | Malpass Technology - Huawei | X | X | X |
| Marcoccia | Roberto | Stratalight | X | X | |
| Marti | Frank | Leviton | X | X | Х |
| Martin | Arlon | Kotura | X | X | X |
| Matsumoto | Kengo | Sumitomo Electric | X | X | |
| McClay | Phil | Zarlink Semiconductor | X | X | Х |
| McDonough | John | NEC America | X | X | X |
| | | | X | X | X |
| McSorley | Greg | Amphenol | | | |
| Mellitz | Richard | Angles Devises Inc | X | X | X |
| Miao Mari | Tremont | Analog Devices Inc. | X | | X |
| Mori Nobili | Kazuyuki Babak | Fujitsu Labs | X | X | X |
| Nabili | | Inphi | | X | X |
| Nakamoto | Edward | Spirent Communications | X | X | Х |
| Neer | Jay | Molex | X | Х | |
| Nicholl | Gary | Cisco | X | | Х |
| Noseworthy | Bob | UNH - IOL | | X | |
| Nowell | Mark | Cisco | X | | X |
| Ofelt | David | Juniper Networks | X | X | Х |
| Oganessyan | Gourgen | Quellan | X | X | |
| Oulundsen | George | OFS | X | X | X |
| Paik | Junghoon | ETRI | Х | Х | X |
| Palkert | Tom | Xilinx, Luxtera | | X | X |
| Peeters Weem | Jan | Aprius | X | Х | X |
| Pepeljugoski Petar IBM | | | X | Х | X |
| Pepper | Gerald | Ixia | X | X | X |

| Petrilla John Avago Technologies | | X | X | Х | |
|----------------------------------|----------------------|------------------------------|---|---|---|
| Rabinovich | Rick | T-Packets | X | | Χ |
| Roth | Moran | Corringent Systems | X | Χ | Х |
| Roth | Richard | Amphenol TCS | X | | Х |
| Sambasivan | Sam | AT&T | X | Χ | Х |
| Schrans | Thomas | Santur | X | Χ | |
| Schube | Scott | Intel | X | | |
| Seely | Ted | Sprint | Х | Χ | |
| Serbay | Murat | Merge Optics | Х | Χ | Х |
| Shafai | Farhard | Sarance | | Х | Х |
| Shigematsu | Masayuki | Innovation Core SEI, Inc. | Х | Х | Х |
| Simsarian | Jesse | Alcatel-Lucent | Х | Χ | Х |
| Skubic | Chris | Intel | | Χ | |
| Song | Steve | Excelight | Х | Х | Х |
| Southworth | Robert | Fulcrum Microsystems | Х | Х | Х |
| Sparrowhawk | Bryan | Leviton | X | X | X |
| Steerman | Henk | AMS-1X | Х | Х | Х |
| Storaasli | Olaf | Draka Comteq | | Х | Х |
| Subramanian | Krishnamurthy | Force 10 Networks | Х | | |
| Swanson | Steve | Corning | Х | Х | Х |
| Szczepanek | Andre | Texas Instruments | Х | Х | Х |
| Takahashi | Hidenori | KDDI R&D Laboratories Inc. | Х | Х | Х |
| Takatori | Hinoshi | PhyCore Tech | Х | | Х |
| Tanaka | Bert | Woven Systems | Х | | |
| Tavacoli | Jim | Santur | Х | Х | Х |
| Thiagarajan | Sashi | Ciena | | | Х |
| Thompson | Geoff | Nortel | | | Х |
| Tohmon | Genji | Intel | Х | Х | Х |
| Traverso | Matt | Opnext | Х | Х | |
| Trowbridge | Steve | Alcatel-Lucent | Х | Х | Х |
| Tsumura | Eddie | Excelight | Х | Х | Х |
| Turner | Brad | Juniper | Х | Х | Х |
| Urricariet | Christian | Finisar | | Х | Х |
| Vaden | Sterling | SMP | | Х | |
| Van Deusen | Herb | Gore Associates | Х | Х | |
| Vanderlaan | Paul | Nexans | X | X | Х |
| Vetteth | Anoop | Cisco | Х | | |
| Wang | Zhongfeng | Broadcom | X | Х | |
| Way | Winston | OPVISTA | X | X | |
| Wertz | Jason | Sandia National Laboratories | X | X | Х |
| White | Martin | Marvell Semiconductor | X | X | X |
| Wise | Jeffrey | Emerson | X | X | X |
| Younce | | | X | X | X |
| Young | | | X | X | X |
| | ivny Pavel Tektronix | | X | X | X |