IEEE P802.3ba
40Gb/s and 100Gb/s Ethernet

Final Report

San Diego, CA, USA
July 2010

John D’Ambrosia
jdambrosia@ieee.org
## IEEE P802.3ba Task Force Officers and Editors

<table>
<thead>
<tr>
<th>Name</th>
<th>Role Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>John D’Ambrosia</td>
<td>Task Force Chair</td>
</tr>
<tr>
<td>Ilango Ganga</td>
<td>Task Force Chief Editor</td>
</tr>
<tr>
<td></td>
<td>Editor – Clauses 1, 4, 80, Annexes A, 4A</td>
</tr>
<tr>
<td>Mark Gustlin</td>
<td>Chair, “Logic” Sub-task Force</td>
</tr>
<tr>
<td></td>
<td>Editor – Clauses 81, 82</td>
</tr>
<tr>
<td>Chris DiMinico</td>
<td>Chair, “Cu” Sub-task Force</td>
</tr>
<tr>
<td></td>
<td>Editor – Clause 85, Annex 85A</td>
</tr>
<tr>
<td>Pete Anslow</td>
<td>Chair, “Optical” Sub-task Force</td>
</tr>
<tr>
<td></td>
<td>Editor – Clause 88</td>
</tr>
<tr>
<td>Hugh Barrass</td>
<td>Editor – Clauses 30, 45</td>
</tr>
<tr>
<td>Jonathan King</td>
<td>Editor – Clause 87</td>
</tr>
<tr>
<td>Arthur Marris</td>
<td>Editor – Clauses 69, 73, 74, 84, Annexes 69A, 69B</td>
</tr>
<tr>
<td>Steve Trowbridge</td>
<td>Editor – Clause 83, Annex 83C</td>
</tr>
<tr>
<td>Ryan Latchman</td>
<td>Editor – Annex 83A, 83B</td>
</tr>
<tr>
<td>Piers Dawe</td>
<td>Editor – Clause 86, 52, Annex 86A</td>
</tr>
<tr>
<td>George Oulundsen</td>
<td>Task Force Secretary</td>
</tr>
<tr>
<td>Frank Chang</td>
<td>Task Force Web Master</td>
</tr>
</tbody>
</table>

IEEE P802 San Diego, CA, Plenary Meeting, July 2010
Reflector and Web

- To subscribe to the IEEE P802.3ba Task Force reflector, send an email to:
  
  \textit{ListServ@ieee.org}

  with the following in the body of the message (do not include “<>”):
  
  \textit{subscribe stds-802-3-hssg <yourfirstname> <yourlastname> end}

- Send IEEE P802.3ba Task Force reflector messages to:
  
  \textit{STDS-802-3-HSSG@listserv.ieee.org}

- Task Force web page URL:
  
  \textit{http://www.ieee802.org/3/ba/}
Activities Since March Plenary

- Sponsor Ballot 2\textsuperscript{nd} Recirculation
  - Ballot Opened: March 26, 2010
  - Ballot Closed: April 10, 2010
  - Results:
    - No new disapprove votes
    - No new comments

- April Interim Cancelled

- IEEE P802.3ba Draft 3.2 submitted to Revcom April 29, 2010

- IEEE P802.3ba Ratified June 17

- IEEE-SA Press Release June 21
  - Supported briefings

- IEEE 802.3ba-2010 Published June 22
## Sponsor Ballot Summary

<table>
<thead>
<tr>
<th></th>
<th>D3.0 Initial Sponsor ballot</th>
<th>D3.1 First Sponsor Ballot Recirc</th>
<th>D3.2 2nd Sponsor Ballot Recirc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voters</td>
<td>143</td>
<td>143</td>
<td>143</td>
</tr>
<tr>
<td>Approve</td>
<td>89</td>
<td>97</td>
<td>110</td>
</tr>
<tr>
<td>Disapprove</td>
<td>21</td>
<td>17*</td>
<td>6 **</td>
</tr>
<tr>
<td>Disapprove w/o comment</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Abstain</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Returns</td>
<td>116</td>
<td>120</td>
<td>122</td>
</tr>
<tr>
<td>Response rate</td>
<td>81%</td>
<td>83%</td>
<td>85%</td>
</tr>
<tr>
<td>Abstention rate</td>
<td>5%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Approval rate</td>
<td>80%</td>
<td>85%</td>
<td>94%</td>
</tr>
</tbody>
</table>

Ballot met required response rate >=75%, abstention rate < 30%, and approval rate >=75%

* 9 Disapprove votes have no unresolved negative comments

** 6 Disapprove Votes Carry-overs from previous drafts
Special Thanks to…

- Our Chief Editor - Ilango Ganga
- Our Sub-Task Force Chairs – Mark Gustlin, Chris Di Minico, Pete Anslow
- Our Editorial Team – Ilango Ganga, Mark Gustlin, Chris Di Minico, Pete Anslow, Hugh Barrass, Jonathan King, Arthur Marris, Steve Trowbridge, Ryan Latchman, Piers Dawe
- Our Ad hoc Chairs – Dan Dove, Andy Moorwood, Alessandro Barbieri, Ryan Latchman, John Petrilla
- The IEEE P802.3ba Task Force – YOU ROCKED!
- Our Secretaries – Roger Merel, Trey Melpass, George Oulundsen, Steve Trowbridge, Farhad Shafai, Dave Chalupsky, Pete Anslow, and anyone else I may have missed
- Webmaster - Frank Chang
- IEEE 802.3 Officers (Past & Present) – Bob Grow, David Law, Wael Diab, Steve Carlson
- IEEE 802.3 Chairs – Past & Present
- Shimon Muller – For sticking to his guns!
- Howard Frazier – For making me realize my role
- Joel Goergen – For initially pulling me into this
- Getting the Standard balloted / published – Kathryn Bennett, Michelle Turner, Catherine Berger
- ITU-T
- Ethernet Alliance
Personal Thoughts #1

- If you ever hear these words, run!

- Let __________ be the lightening rod for the industry!
Personal Thoughts #2

- Consensus building is done outside the meeting room, often over dinner…

- Note – Don’t let Chris Cole pick the restaurant!
Personal Thoughts #3

- The Forgotten PHYs
  - 40GBASE-CCR
  - 100GBASE-CCR

- SR  →  100 / 150m
- CCR  →  ???
- LR  →  -10km
The Next Rate

- Frequent topic of discussion during HSSG
- Traffic growth is driving ongoing industry discussions regarding the Next Rate of Ethernet
  - Ethernet Alliance
  - OIDA
  - OFC
  - IEEE / ITU-T Workshop
- Market Need
  - Data Centers
  - Internet Exchanges
  - Carriers
- Technical Feasibility
  - Optical Signaling
  - Electrical Signaling

![Graph showing traffic growth and doubling rates for different Ethernet speeds.](image-url)
IEEE Industry Connections

- Program currently set up to support entity / company participants, opportunity to work with IEEE-SA to define an individual based program.
- This forum could be used to facilitate industry roadmaps and technical white papers
- My goal – bring together like-minded individuals to explore industry bandwidth requirements
Thank You!