

Next-Generation BASE-T Study Group Closing Report

IEEE 802.3 Ethernet Working Group

Bill Woodruff, Broadcom, Chair
David Chalupsky, Intel, Vice Chair

San Antonio, November 15, 2012

Reflector and Web

- To subscribe to the Next Generation BASE-T reflector, send an email to:

ListServ@ieee.org

with the following in the body of the message (do not include “<>”):

subscribe NGBASE-T <yourfirstname> <yourlastname>

end

- Send NGBASE-T reflector messages to:

[STDS-802-3-NGBASET @listserv.ieee.org](mailto:STDS-802-3-NGBASET@listserv.ieee.org)

- Study Group web page URL:

<http://www.ieee802.org/3/NGBASET/>

Study Group Private Area

- URL: <http://www.ieee802.org/3/NGBASET/private/index.html>
 - Username: xxxxxx
 - Password: xxxxx
- Write it down...
- Note - The content is posted for your review only, and neither the content nor access information should be copied or redistributed to others in violation of document copyrights.

This Week's Progress

- ~40 attendees; 2-day meeting
- Heard 10 presentations working toward a reach objective
 - New cabling standards, channel parameters, link length distributions, topology needs for data center servers, EEE, system design considerations
 - Power vs. reach the hot topic
- Developed and approved responses to two liaison letters, posted to SG website
- Multiple straw polls and motions (highlights to come)
- No changes to project documentation!
- Passed motion to extend Study Group

Thanks to George Zimmerman for serving as recording secretary

Straw Polls

I would support a 40Gb/s reach objective of about:

– Chicago rules

- a) 10m - 9
- b) 20m - 8
- c) 25m - 14
- d) 30m - 23
- e) 40m - 4
- f) 50m - 2
- g) something else - 1
- h) Undecided - 2

– VOTE FOR ONE

- a) 10m - 0
- b) 20m - 6
- c) 25m - 5
- d) 30m - 11
- e) 40m - 0
- f) 50m - 1
- g) 10m & optional 30m - 1
- h) Undecided - 3

Straw Polls

I would support a 40Gb/s reach objective of up to at least 25m

- YES: 20 NO: 6
- YES: 16 NO: 5 UNDECIDED: 10

SG Motion #3

- Adopt a 40Gb/s reach objective of up to at least 25m.
 - Technical $\geq 75\%$
 - M: Brad Booth
 - 2nd Alan Flatman
 - Yes: 12 No: 20 Abstain : 4
 - Motion fails

SG Motion #4

- Study Group will focus on presentations regarding reach objective in the range of 20m-30m.
 - Technical $\geq 75\%$
 - M: Wael Diab
 - 2nd George Zimmerman
 - Yes: 28 No: 3 Abstain : 4
 - Motion passes

SG Motion #5

- Study Group will adopt a 2-connector channel model as an objective
 - Technical $\geq 75\%$
 - M: Brad Booth
 - 2nd Alan Flatman
 - Yes: 32 No: 0 Abstain : 5
 - Motion passes

To Summarize

- We are converging on a 2-connector channel model in the range of 20m-30m to satisfy the “structured cabling” aspect of our existing objective.

SG Motion #6

- Move that the NGBASE-T Study Group vice-chair submit the following motion to the IEEE 802.3 Working Group:
 - Move that IEEE 802.3 approve the text in `ngbt_tia_liaison_response_1112.pdf`, with editorial license granted to the Chair (or his appointed agent), as a liaison communication from the IEEE 802.3 Working Group to TIA.
 - Procedural >50%
 - M: George Zimmerman
 - 2nd Brad Booth
 - (all in the room) Yes: 32 No: 0 Abstain : 0
 - Motion passes

WG Motion

Move that IEEE 802.3 approve the text in ngbt_tia_liaison_response_1112.pdf, with editorial license granted to the Chair (or his appointed agent), as a liaison communication from the IEEE 802.3 Working Group to TIA.

Moved by David Chalupsky on behalf of the Study Group

2nd – N/A

Technical $\geq 75\%$

Yes: No: Abstain:

SG Motion #7

- Move that the NGBASE-T Study Group vice-chair submit the following motion to the IEEE 802.3 Working Group:
 - Move that IEEE 802.3 approve the text in `ngbt_iso_liaison_response_1112.pdf`, with editorial license granted to the Chair (or his appointed agent), as a liaison communication from the IEEE 802.3 Working Group to ISO/IEC JTC1 / SC25/ WG3.
 - Procedural >50%
 - M: Brad Booth
 - 2nd George Zimmerman
 - (all in the room) Yes: 34 No: 0 Abstain : 0
 - Motion passes

WG Motion

Move that IEEE 802.3 approve the text in ngbt_iso_liaison_response_1112.pdf, with editorial license granted to the Chair (or his appointed agent), as a liaison communication from the IEEE 802.3 Working Group to ISO/IEC JTC1 / SC25/ WG3.

Moved by David Chalupsky on behalf of the Study Group

2nd – N/A

Technical $\geq 75\%$

Yes: No: Abstain:

SG Motion #8

- Request 802.3 extend the Next Generation Twisted Pair Study Group for an additional period of 6 months

M: Alan Flatman

S: David Koenen

Procedural, >50%

Yes: 34

No: 0

Abstain: 0

Motion Passes

WG Motion

- Move that IEEE 802.3 extend the Next Generation BASE-T Study Group for an additional period of 6 months

Moved by David Chalupsky on behalf of the Study Group

2nd – N/A

>50%

Yes: No: Abstain:

Thank You!

Objectives (approved by SG on 25-Sept-12)

- Support full duplex operation only
- Preserve the 802.3 / Ethernet frame format utilizing the 802.3 MAC
- Preserve minimum and maximum Frame Size of current 802.3 standard
- Support a BER better than or equal to 10^{-12} at the MAC/PLS service interface
- Support Auto-Negotiation (Clause 28)
- Support optional Energy Efficient Ethernet
- Support local area networks using point-to-point links over structured cabling topologies, including directly connected link segments
- Do not preclude meeting FCC and CISPR EMC requirements
- Support a data rate of 40 Gb/s at the MAC/PLS Service Interface