Closing Report

IEEE 802.3 P802.3bz 2.5G/5GBASE-T Task Force

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March 17, 2016

IEEE P802.3bz 2.5G/5GBASE-T Task Force Project Information

Task Force Organization

David Chalupsky, Chair — Jon Lewis, Secretary

George Zimmerman, Chief Editor

- Editorial Team: Chris DiMinico, Jon Lewis, Mike Klempa, Valerie Maguire, Brett McClellan

Peter Jones, Chair, Architecture ad hoc — Chris DiMinico, Chair, Use Case ad hoc

German Feyh, Chair, Enterprise Noise and Use Case Analysis ad hoc (ENUCA)

Task Force web and reflector information

Reflector information: http://ieee802.org/3/NGBASET/reflector.html

- Shares reflector with P802.3bq

Home page: http://ieee802.org/3/bz/index.html

PAR - http://www.ieee802.org/3/bz/P802.3bz.pdf

CSD - http://www.ieee802.org/3/bz/802d3_NGEABT_CSD_802.3_WG_approved_12-march-15.pdf

Objectives - http://www.ieee802.org/3/bz/ngeabt_objectives_802.3WG_approved_0315.pdf

Private area: http://ieee802.org/3/bz/private/index.html

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IEEE P802.3bz Adopted Schedule

2015	January		1st SG meeting
	March		2nd SG meeting
2015	May	D0.1	1st TF mtg, preliminary draft
	July	D1.0	start TF review
	September	D1.1	
	November	D1.2	technically complete - presubmit for WG ballot. Must be available 10days prior to 802.3 mtg
2016	January	D2.0	30-day IWGB: 1/23-2/21.
	March	D2.1	conditional SB for May
	April	D3.0	contingent interim not needed… START SPONSOR BALLOT
	May	D3.1	If contingent interim held, start SB
	July	D3.2	
	August		Aug 5th final recirc start for deadline Sept Revcom
	September	D3.2	Approved

Activities This Week

- 1.75-day meeting interleaved with P802.3bq
  - 40 attendees.
- Resolved 220 comments on D2.0
  - 70 “EZ” adopted in single motion
  - 52 BQALIGN bucket: adopting items changed in P802.3bq D3.1
- Authorized the generation of D2.1
- Achieved 100% approval on D2.0
- ➢ Request conditional approval to proceed to initial Sponsor Ballot
- Scheduled contingent interim for April 14, 2016

Liaisons and Communications

Incoming liaison from TIA TR42, providing draft 0.6b of TSB-5021 to P802.3bz

Letter: http://www.ieee802.org/3/minutes/mar16/incoming/TR42-2016-06-060_to_IEEE_802d3.pdf

TSB-5021 posted in P802.3bz private area

Incoming liaison of ISO/IEC TR 11801- 9904

ISO/IEC JTC1 SC25 to IEEE P802.3bz on 2.5GBASE-T and 5GBASE-T Attachment (Password protected)

No responses needed at this time.

P802.3bz TF Motion #9

Move to

Reaffirm the CSD responses in http://www.ieee802.org/3/bz/802d3_NGEABT_CSD_802.3_WG_approved_12-march-15.pdf

Request 802.3 WG to seek conditional EC approval to conduct sponsor ballot

Direct the Task Force Chair to make the following motion to 802.3

> Move that the IEEE 802.3 Working Group re-affirm the CSD responses in http://www.ieee802.org/3/bz/802d3_NGEABT_CSD_802.3_WG_approved_12-march-15.pdf and request conditional approval to progress the IEEE P802.3bz draft to IEEE 802 LMSC sponsor ballot once the Working Group ballot process has been successfully completed.

Moved: Peter Jones Seconded: Pete Cibula

Technical (≥ 75% required)

Y: 23 N:0 A:0

Motion passes 4:49pm

Ballot Close and Results

Draft 2.0 Working Group Ballot

Opened 1-Feb-2016, closed 1-Mar-2016

Comments received: 220	Count	%		Status
		Actual	Require	
Abstain	14	10%	< 30	PASS
Disapprove with comment	0	-	-	-
Disapprove without comment	0	-	-	-
Approve	125	100%	≥ 75	PASS
Ballots returned	139	67%	≥ 50	PASS
Voters	208	-	-	-

Unsatisfied Comments Review

Total of 0 unsatisfied comments from 0 Disapprove voters

D2.0 Comment Profile

220 comments

- 138 Editorial
- 21 Editorial Required
- 39 Technical
- 22 Technical Required

112 EZ, Editorial style or Formatting

- includes obvious typos, formatting or others

53 comments passed through from IEEE 802.3bq initial sponsor ballot (deferred from January)

Leaves 220-165 = 55 comments to consider that are possibly new relevant material

15 of these are E or ER

Leaves 40 possibly new technical material

23 Accept or Accept in Principle (see following 2 slides for changes)

SUMMARY OF TECHNICAL CHANGES GOING FROM DRAFT 2.0 TO 2.1 #1

- Comment 266: technical change to the ALSNR qualification procedure – mirrors work in TIA TR42.7 over the past 3 months. Replaces 4 pages of text with 4 pages that have been verified by multiple individuals to provide the same functionality. Additionally, ~5 lines of text were changed to fine tune the functionality.
- Comment 267: clarifies frequency variation requirement applies to MASTER, mirroring resolution of unresolved negative comment on 802.3bq (3 word change)
- Comment 268: relaxes MDI impedance balance specification for 2.5GBASE-T and fixes 5GBASE-T typo (1 equation became 2 equations (<6 lines)

SUMMARY OF TECHNICAL CHANGES GOING FROM DRAFT 2.0 TO 2.1 #2

- Comment 290: changes labeling requirement from “on faceplate” to faceplate or documentation (1 line)
- Comment 342: adds 31B.3.7 to the draft with 2.5Gb/s and 5Gb/s PAUSE values, and clarifies delay is for PAUSE operation, mirroring other PHY clauses. (3 new paragraphs)
- Comment 404: clarifying XGMII requirement is support for one of 2.5G, 5G, or 10G. (1 line)
- A number of the remaining technical changes were primarily editorial in nature, clarifying which ANSI and ISO cabling specifications and technical reports were applicable for the link segments. These include comments 374, 376, 377, 379, 380, 382, 383, and 384. (~5 lines)

Recirculation ballot and resolution meeting schedule

1st Working Group recirculation ballot day one	28th March 2016
1st Working Group recirculation ballot close date	11th April 2016
IEEE P802.3bz comment resolution meeting	14th April 2016
2nd Working Group recirculation ballot day one	21st April 2016
2nd Working Group recirculation ballot close date	5th May 2016
IEEE P802.3bz comment resolution meeting	Week of 23rd May 2016

Note: 2nd Working Group recirculation ballot only if required.

802.3 WG Motion

Move that the IEEE 802.3 Working Group re-affirm the CSD responses in http://www.ieee802.org/3/bz/802d3_NGEABT_CSD_802.3_WG_approved_12-march-15.pdf and request conditional approval to progress the IEEE P802.3bz draft to IEEE 802 LMSC sponsor ballot once the Working Group ballot process has been successfully completed.

Moved by David Chalupsky on behalf of the Task Force

Technical (≥ 75% required)

Y: N: A:

Motion passes/fails

P802.3bz additional interim

Contingent Interim

Will be cancelled if not necessary to enter Sponsor Ballot

April 14, 2015, 2-5pm (3 hours)

Santa Clara, CA

No fee

Teleconference will be available

…but the rules say you must be in the room to vote

http://ieee802.org/3/rules/guidelines.html

Questions?

Thank you!

Next Generation Enterprise Access BASE-T PHY Objectives

- 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 Auto-Negotiation (Clause 28)
- Support optional Energy Efficient Ethernet (Clause 78)
- Support local area networks using point-to-point links over structured cabling topologies
- Do not preclude meeting FCC and CISPR EMC requirements
- Support PoE (Clause 33)
  - including amendments made by 802.3bt “DTE Power via MDI over 4-Pair Task Force”
- Support MAC data rates of 2.5 Gb/s and 5 Gb/s
- Support a BER better than or equal to 10^{-12} at the MAC/PLS service interface (or the frame loss ratio equivalent)
- Select copper media from ISO/IEC 11801:2002, with any appropriate augmentation to be developed through work of 802.3 in conjunction with SC25/WG3 and TIA TR42
- Define a 2.5 Gb/s PHY for operation over
  - Up to at least 100m on four-pair Class D (Cat5e) balanced copper cabling on defined use cases and deployment configurations
- Define a 5 Gb/s PHY for operation over
  - Up to at least 100m on Class E (Cat6) balanced copper cabling on defined use cases and deployment configurations
  - Up to 100m on Class D (Cat5e) balanced copper cabling on defined use cases and deployment configurations