Chief Editor's Report
P802.3df

Matt Brown

Huawei

P802.3df Editor-In-Chief

IEEE P802.3df Task Force

July 2022

Editorial Team

Editor	Duties
Matt Brown	Chief Editor, clause editor
Gary Nicholl	Lead editor and clause editor, logic
Adee Ran	Lead editor and clause editor, electrical
Tom Issenhuth	Lead editor and clause editor, optical
Arthur Marris	Clause editor, logic
Xiang He	Clause editor, logic
Kapil Shrikhande	Clause editor, logic
Peter Stassar	Clause editor, optical
Howard Heck	Advisor/reviewer, electrical
Chris Diminico	Advisor/reviewer, electrical
Jeff Slavick	Advisor/reviewer, logic

Activities so far…

- Created preview Draft 0.1 as an editorial contribution
  - New 800 Gb/s Ethernet architecture supporting 100 Gb/s per lane
  - Various 800 Gb/s Ethernet PHYs with 100 Gb/s per lane
  - One new 400 Gb/s Ethernet PHY (400GBASE-DR4-2)
- Posted Draft 0.1 on July 8, 2022

Objectives for this meeting

- Review Draft 0.1 structure and content.
- Adopt baselines, where possible, for remaining content related to 100 Gb/s per lane PHYs.

Draft Status

Draft 0.1 Status

- The draft is a work in progress.
- A lot of further editorial improvements are required.
- Some content uncertain as we are waiting upon baselines to be adopted.
- Further work between July and September meetings…
  - complete the editorial improvements
  - implement baselines adopted at July meeting.

Draft Structure

Amended clauses, Part 1

Clause #	(current) clause subject/title	Notes
1	Definitions, abbreviations,etc.	new defs., abbrs., etc.
4A	Simplified full duplex media access control	Add 800G notes for Table 4A-2
30	Management Objects	new content for 400G/800G
31B	MAC Control PAUSE operation	new content for 800G
45	MDIO	new content for 400G/800G
69	Backplane	new content for 800G
73	AN	new content for 800G
90	Ethernet support for time synchronization protocols	new content for 800G
90A	Ethernet support for time synchronization protocols	new content for 800G
116	400GE/200GE introduction	add 400GBASE-DR4-2

Amended clauses, Part 2

Clause #	(current) clause subject/title	Notes
120F	100GAUI-1, 200GAUI-2, 400GAUI-4 C2C	add 800GAUI-8
120G	100GAUI-1, 200GAUI-2, 400GAUI-4 C2M	add 800GAUI-8
124	400GBASE-DR4	add 800GBASE-DR8/DR8-2, 400GBASE-DR4-2
162	100GBASE-CR1, 200GBASE-CR2, 400GBASE-CR4 PMD	add 800GBASE-CR8
162A	100GBASE-CR1, 200GBASE-CR2, and 400GBASE-CR4 test points, budget, etc.	add 800GBASE-CR8
162B	100GBASE-CR1 PMD, 200GBASE-CR2 PMD, and 400GBASE-CR4 PMD test fixtures	add 800GBASE-CR8
162C	100GBASE-CR1 PMD, 200GBASE-CR2 PMD, and 400GBASE-CR4 PMD MDIs	add 800GBASE-CR8
162D	100GBASE-CR1 PMD, 200GBASE-CR2 PMD, and 400GBASE-CR4 PMD form factors	add 800GBASE-CR8
163	100GBASE-KR1, 200GBASE-KR2, 400GBASE-KR4 PMD	add 800GBASE-KR8
167	100GBASE-VR1/SR1, 200GBASE-VR2/SR2, 400GBASE-VR4/SR4	add 800GBASE-VR8/SR8

New clauses

Clause #	(current) clause subject/title	Notes
169	Introduction to 800GE	new clause (base on 116)
170	800G RS, 800GMII	new clause (base on 117)
171	800G MII extender, XS	new clause (base on 118)
172	800G PCS/FEC	new clause (base on 119)
173	800G PMA	new clause (base on 120)
173A	PMA examples	new annex (base on 120A)

Baselines

Adopted baselines

Topic	Baseline	Related Motion
Architecture	https://www.ieee802.org/3/df/public/22_05/22_0517/gustlin_3df_01a_220517.pdf	May 2022 motion #1
800GAUI-8 C2C/C2M AUIs	https://www.ieee802.org/3/df/public/22_03/lusted_3df_01a_220315.pdf, slides 4-6	Mar 2022, motion #3
800GBASE-CR8/KR8 PMDs	https://www.ieee802.org/3/df/public/22_03/lusted_3df_01a_220315.pdf, slides 4-6	Mar 2022, motion #3
800GBASE-CR8 MDIs	https://www.ieee802.org/3/df/public/22_05/22_0602/diminico_3df_01a_220602.pdf, slides 4, 6, 7	May 2022 motion #4
Auto-negotiation for 800GBASE-CR8/KR8	https://www.ieee802.org/3/df/public/22_05/22_0602/lusted_3df_01a_220602.pdf, slides 4-5	May 2022 motion #3
8 x 100 Gb/s electrical AUI/PMD nomenclature	https://www.ieee802.org/3/df/public/22_01/lusted_3df_01_220111.pdf, slide 25	Jan 2022, motion #4
400GBASE-DR4-2 (parallel SMF 2 km) PMD	https://www.ieee802.org/3/df/public/22_05/22_0524/welch_3df_01a_220524.pdf	May 2022 motion #2
800GBASE-VR8/SR8 PMDs	https://www.ieee802.org/3/df/public/22_03/murty_3df_01a_220315.pdf, slide 8	Mar 2022, motion #5
800GBASE-DR8/DR8-2 PMDs	https://www.ieee802.org/3/df/public/22_02/welch_3df_01a_220222.pdf	Feb 2022, motion #1
Optical nomenclature, 500 and 2 km SMF	https://www.ieee802.org/3/df/public/22_05/22_0602/lusted_3df_02_220602.pdf, slide 3	May 2022, motion #5
8 x 100 Gb/s MMF PMD nomenclature	https://www.ieee802.org/3/df/public/22_01/lusted_3df_01_220111.pdf, slide 25	Jan 2022, motion #4

January 2022 motions and straw polls: https://www.ieee802.org/3/df/public/22_01/motions_3df_a_0122.pdf
February 2022 motions and straw polls: https://www.ieee802.org/3/df/public/22_02/motions_3df_0222.pdf
March 2022 motions and straw polls: https://www.ieee802.org/3/df/public/22_03/motions_3df_0322.pdf
May 2022 motions and straw polls: https://www.ieee802.org/3/df/public/22_05/motions_3df_2205.pdf

Details requiring adopted baselines

- 800 Gb/s RS/MII
- 800 Gb/s extender and extender sublayer
- 800 Gb/s PCS/FEC
- 800 G/bs PMA
- Time synchronization (Clause 90)
- MDI for 800GBASE-VR8/SR8
- MDI for 800GBASE-DR8/DR8-2
- Link training details for 800GBASE-CR8/KR8
- 50 ppm signaling rate range for all 800GBASE PMDs

Thanks!