

Motions & Strawpolls

**IEEE 802.3 Beyond 400 Gb/s Ethernet Study Group
Electronic April 2021 Session**

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April 1, 2021

Reference – Strawpolls – 2/11/21

- 2/11 Straw Poll #1- I am interested in objectives targeting:

800 Gb/s:	12	(17%)
1.6 Tb/s:	2	(3%)
Both:	43	(61%)
Need more information:	8	(11%)
Abstain:	5	(7%)

- 2/11 Straw Poll #2- I am interested in development of higher speed electrical interfaces targeting “Beyond 400 GbE” based on:

100 Gb/s per lane:	6	(9%)
200 Gb/s per lane:	12	(17%)
Both	38	(55%)
Need more information:	9	(13%)
Abstain:	4	(6%)

- 2/11 Straw Poll #3 - I am interested in development of optical solutions targeting “Beyond 400 GbE” with optical signaling per lane based on:

100 Gb/s:	3	(5%)
200 Gb/s:	19	(33%)
800 Gb/s:	4	(7%)
Need more information:	28	(49%)
Abstain:	3	(5%)

Reference – Strawpoll #1 – 3/22

■ For the following proposed objective, I would support the following –

Support a BER of better than or equal to _____ at the MAC/PLS service interface (or the frame loss ratio equivalent)

	Results
a) 10⁻¹³	21
b) 10⁻¹⁴	24
c) 10⁻¹⁵	5
d) Better than 10⁻¹⁵	0
e) Need more information	50
f) Abstain	16

Objectives to Consider

- Next Ethernet Rate (s)
- Full duplex Operation / Ethernet Frame format / FrameSize
- BER
- OTN
- Electrical Interfaces
- Physical Layer Specifications

Straw Poll #1 - Next Ethernet Rate (s)

I would support adopting the following objective:	Results
a) Support a MAC data rate of 800 Gb/s	13
b) Support a MAC data rate of 1.6 Tb/s	1
c) Support a MAC data rate of 800 Gb/s and 1.6 Tb/s	50
d) Need more information	17
e) Abstain	4

Straw Poll #2 - Next Ethernet Rate

I would support adopting the following objective: Support a MAC data rate of 800 Gb/s	Results
Yes	73
No	5
Need more information	4
Abstain	4

Straw Poll #3 - Next Ethernet Rate

I would support adopting the following objective: Support a MAC data rate of 1.6 Tb/s	Results
Yes	35
No	9
Need more information	41
Abstain	6

Motion

Motion	Move to adopt the following objective: <ul style="list-style-type: none">• Support a MAC data rate of 800 Gb/s
M:	Matt Brown
S:	Kent Lusted
Technical ($\geq 75\%$)	
All (y/n/a)	85/ 2 / 4
Results	Motion Passes

Motion

Motion	<p>Move to adopt the following objectives:</p> <ul style="list-style-type: none">• Support full-duplex operation only• Preserve the Ethernet frame format utilizing the Ethernet MAC• Preserve minimum and maximum FrameSize of current IEEE 802.3 standard
M:	Kent Lusted
S:	Jim Weaver
Technical (>=75%)	
All (y/n/a)	81 / 2 / 7
Results	Motion Passes

Straw Poll #4 - BER

For the following proposed objective in support of 800 Gb/s operation, I would support the following – Support a BER of better than or equal to _____ at the MAC/PLS service interface (or the frame loss ratio equivalent)	Results
a) 10^{-13}	42
b) 10^{-14}	26
c) 10^{-15}	4
d) Better than 10^{-15}	2
e) Need more information	10
f) Abstain	7

Straw Poll #5 BER

For the following proposed objective in support of 1.6 Tb/s operation,, I would support the following – Support a BER of better than or equal to _____ at the MAC/PLS service interface (or the frame loss ratio equivalent)	Results
a) 10^{-13}	13
b) 10^{-14}	26
c) 10^{-15}	2
d) Better than 10^{-15}	0
e) Need more information	38
f) Abstain	6

Straw Poll #6 - OTN Support

I would support adopting the following objective:	Results
<ul style="list-style-type: none">• Provide appropriate support for OTN	
a) Yes	49
b) No	10
c) Need more information	17
d) Abstain	14

Motion

Motion	Move to adopt the following objective: <ul style="list-style-type: none">• Provide appropriate support for OTN
M:	Steve Trowbridge
S:	Ted Sprague
Technical ($\geq 75\%$)	
All (y/n/a)	37 / 23 / 12
Results	Motion Fails

April 5, 2021

Objectives to Consider

- ▣ Optical Physical Layer Specifications
- ▣ Electrical Interfaces

Straw Poll - Objectives to Consider - MMF

1	I would support adopting the following objective: <ul style="list-style-type: none">Define a physical layer specification that supports 800 Gb/s operation over 8 pairs of MMF with lengths up to at least 50 m	Results
	Yes	64
	No	3
	Need more information	12
	Abstain	11
2	I would support adopting the following objective: <ul style="list-style-type: none">Define a physical layer specification that supports 800 Gb/s operation over 8 pairs of MMF with lengths up to at least 100 m	
	Yes	59
	No	6
	Need more information	14
	Abstain	11

Motion - MMF

Motion	Move to adopt the following objectives: <ul style="list-style-type: none">• Define a physical layer specification that supports 800 Gb/s operation over 8 pairs of MMF with lengths up to at least 50 m• Define a physical layer specification that supports 800 Gb/s operation over 8 pairs of MMF with lengths up to at least 100 m
M:	Robert Lingle
S:	Ramana Murty
Technical ($\geq 75\%$)	
All (y/n/a)	61 / 13 / 18
Results	Motion Passes

Straw Poll - Objectives to Consider – Single Mode (DR)

1	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation over 8 pairs of SMF with lengths up to at least 500 m 	Results
	Yes	80
	No	7
	Need more information	0
	Abstain	5
2	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation over 4 pairs of SMF with lengths up to at least 500 m 	
	Yes	79
	No	0
	Need more information	5
	Abstain	8
3	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation over 4 pairs of SMF with lengths up to at least 2 km 	
	Yes	59
	No	8
	Need more information	14
	Abstain	11

Motion

Motion	Move to adopt the following objectives: <ul style="list-style-type: none">• Define a physical layer specification that supports 800 Gb/s operation over 8 pairs of SMF with lengths up to at least 500 m• Define a physical layer specification that supports 800 Gb/s operation over 4 pairs of SMF with lengths up to at least 500 m• Define a physical layer specification that supports 800 Gb/s operation over 4 pairs of SMF with lengths up to at least 2 km
M:	Brian Welch
S:	Ilya Lyubomirsky
Technical ($\geq 75\%$)	
All (y/n/a)	76 / 8 / 6
Results	Motion Passes

Straw Poll - Objectives to Consider – Single Mode (FR)

1	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation over 8 wavelengths <u>over a single SMF in each direction</u> with lengths up to at least 2 km 	Results
	Yes	48
	No	13
	Need more information	12
	Abstain	9
2	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation over 4 wavelengths <u>over a single SMF in each direction</u> with lengths up to at least 2 km 	
	Yes	62
	No	2
	Need more information	11
	Abstain	7

Motion

Motion	Move to adopt the following objective: <ul style="list-style-type: none">• Define a physical layer specification that supports 800 Gb/s operation over 4 wavelengths <u>over a single SMF in each direction</u> with lengths up to at least 2 km
M:	Brian Welch
S:	Ilya Lyubomirsky
Technical (>=75%)	
All (y/n/a)	61 / 1 / 9
Results	Motion Passes

Straw Poll -Objectives to Consider – Single Mode (LR)

1	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation <u>over a SMF in each direction</u> with lengths up to at least 4 km 	Results
	Yes	13
	No	21
	Need more information	28
	Abstain	6
2	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation <u>over a SMF in each direction</u> with lengths up to at least 6 km 	
	Yes	26
	No	8
	Need more information	27
	Abstain	7

Straw Poll Objectives to Consider – Single Mode (≥ 10 km)

1	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation <u>over a single SMF in each direction</u> with lengths up to at least 10 km 	Results
	Yes	44
	No	0
	Need more information	12
	Abstain	7
2	I would support adopting the following objective: <ul style="list-style-type: none"> Define a physical layer specification that supports 800 Gb/s operation <u>over a single SMF in each direction</u> with lengths up to at least 40 km 	
	Yes	42
	No	0
	Need more information	13
	Abstain	8

Motion

Motion	Move to adopt the following objectives: <ul style="list-style-type: none">• Define a physical layer specification that supports 800 Gb/s operation <u>over a single SMF in each direction</u> with lengths up to at least 10 km• Define a physical layer specification that supports 800 Gb/s operation <u>over a single SMF in each direction</u> with lengths up to at least 40 km
M:	Peter Stassar
S:	Ray Nering
Technical (>=75%)	
All (y/n/a)	44 / 9 / 14
Results	Motion Passes

Straw poll - Electrical Interfaces (Chicago Rules)

I would support an objective(s) targeting the development of optional inter-sub layer physical instantiations of interfaces for 800 Gb/s Ethernet based on:	Results
a) 100 Gb/s per lane	45
b) 200 Gb/s per lane	44
c) Non-rate specific per lane	24
d) Need more information	8
e) Abstain	4