

CI 00 SC 0 P L # 24  
 Remein, Duane Huawei

Comment Type TR Comment Status R

I concur with Geoff Thompson's Comment #31 from Draft 2.2. The PAR states participation in THIS TASK FORCE of about 30 persons.  
 In reviewing the minutes of the past meetings here is what I observe:  
 Bonita Spring 3 + 2 part time  
 Waikoloa 5 (4 of 5 sessions or more) + 5 (2 of 5 sessions or less)  
 Pittsburgh 3 (4 of 5 sessions or more) + 1 (3 of 5 sessions) + 7 (2 of 5 sessions or less)  
 Berlin 3 (2 of 2 sessions) + 1 (1 of 2 sessions)  
 Atlanta 6 (3 of 3 sessions for all)  
 San Antonio 10 (2 of 2 sessions for all)  
 Ottawa 14 (7 for 1 of 2 sessions)  
 San Diego 14 (4 for 1 of 3 sessions)  
 Norfolk 13 (4 for 1 of 2 sessions)  
 Beijing 7 (for 1 of 1 half-day session)  
 Indian Wells 13 (3 for 1 of 3 sessions)

From this data I can only conclude that at no meetings did TF attendance reach even 1/2 the approximate number stated in the PAR.

SuggestedRemedy

Per original comment.

Response Response Status W

REJECT. This is a pile-on to a comment from the prior ballot. The previous response still applies. It is copied below.

REJECT. The market projections in the Broad Market Potential based on the automotive and industrial environments continue to be accurate. In fact, there is interest in additional markets such as carrier backhaul and professional audio video.

We have active participation in joint meetings from IEEE 802.1 TSN (a group of more than 30) which has a companion project (IEEE P802.1Qbu Frame Preemption) dependent on this project. Also, about 30 people have participated by commenting on ballots.

The interest in operating on fewer pairs and at lower speeds in the automotive and industrial market is driven by the need to reduce weight and power consumption.

CI 00 SC 0 P L # 23  
 Remein, Duane Huawei

Comment Type TR Comment Status R

I concur with comment #13 from Draft 2.2 by Steve Trowbridge. The terminology of the draft needs to be updated.

SuggestedRemedy

Per comment.

Response Response Status W

REJECT. This is a pile-on to a comment from the prior ballot. The previous response still applies. It is copied below.

REJECT.

The main complaint about the initial CFI was that it presumed a solution and that should be decided after the project is created.

After the project was created, preemption was chosen as part of the solution for interspersing express traffic. The suggested name changes would not aid the reader in understanding the material. There is no reason to obfuscate the selected mechanism.

The project meets the agreed objectives.

CI 00 SC 0 P 0 L 0 # 7  
 Hajduczenia, Marek Bright House Network

Comment Type TR Comment Status R

This is a pile on to comment #13 against D2.2

SuggestedRemedy

Please implement comment #13 against D2.2

Response Response Status W

REJECT. This is a pile-on to a comment from the prior ballot. The previous response still applies. It is copied below.

REJECT.

The main complaint about the initial CFI was that it presumed a solution and that should be decided after the project is created.

After the project was created, preemption was chosen as part of the solution for interspersing express traffic. The suggested name changes would not aid the reader in understanding the material. There is no reason to obfuscate the selected mechanism.

The project meets the agreed objectives.

**Cl 1**    **SC 1.4.209**                      **P 25**            **L 1**            # **35**  
 Kong, Samuel                              Marvell

**Comment Type**    **T**            **Comment Status**    **R**  
 change the word "pause" to "PAUSE"

**SuggestedRemedy**  
 change the word "pause" to "PAUSE"

**Response**                      **Response Status**    **C**  
 REJECT. No lower case PAUSE in the draft 2.3. Subclause does not exist and page reference doesn't match. Was this comment intended for another draft?

**Cl 30**    **SC 30.2.3**                      **P 19**            **L 1**            # **36**  
 Zimmerman, George                      CME Consulting

**Comment Type**    **E**            **Comment Status**    **X**  
 Commenter recognizes this is out of scope for this recirculation. Figure 30-3 is missing external crossreferences on all blocks.

**SuggestedRemedy**  
 Show all sections in figure as 'forest green' marked with tag 'external'.

**Proposed Response**                      **Response Status**    **W**  
 Pat to check with Pete Anslow.

**Cl 30**    **SC 30.2.5**                      **P 21**            **L 1**            # **15**  
 Gardner, Andrew                              Linear Technology

**Comment Type**    **E**            **Comment Status**    **R**  
 Table 30-9 title needs 'continued'

**SuggestedRemedy**  
 See comment.

**Response**                      **Response Status**    **C**  
 REJECT. Out of scope.  
 Also, these documents are professionally edited. The table may not split in the final version.

**Cl 30**    **SC 30.14.1.13**                      **P 26**            **L 51**            # **16**  
 Gardner, Andrew                              Linear Technology

**Comment Type**    **E**            **Comment Status**    **R**  
 Suggest adding page break before 30.14.1.13 for better continuity

**SuggestedRemedy**  
 See comment.

**Response**                      **Response Status**    **C**  
 REJECT. Out of scope.  
 Also, these documents are professionally edited.

**Cl 79**    **SC 79.3.7.1**                      **P 28**            **L 44**            # **22**  
 Remein, Duane                              Huawei

**Comment Type**    **E**            **Comment Status**    **R**  
 Wording: "if more octets are received that were defined"

**SuggestedRemedy**  
 Change "that" to "then" so the statement reads:  
 "if more octets are received than were defined"

**Response**                      **Response Status**    **C**  
 REJECT. Out of scope.

CI 79 SC 79.3.7.2 P 28 L 52 # 4  
Hajduczenia, Marek Bright House Network

Comment Type TR Comment Status R

Unnecessary optionality "the Additional Ethernet Capabilities TLV should be sent in an LLDPDU addressed to the Nearest Bridge group address (see IEEE 802.1Q)." - if we intend for interoperability, we need to leave as few "should" statements as possible and nail down all options down.

Additionally, there is no viable option presented (what address is to be used when the Nearest Bridge group is not used)

*SuggestedRemedy*

Change to "the Additional Ethernet Capabilities TLV shall be sent in an LLDPDU addressed to the Nearest Bridge group address (see IEEE 802.1Q)."  
Update PICS as needed

Response Response Status W

REJECT. The reason it is a should is that users configure what TLVs to send in an LLDP frame. The usage rules are not a requirement on an implementation. All usage rules in Clause 79 have "should" rather than "shall" for that reason.

Interoperability is addressed by the shall in the last paragraph of 99.4.2. That ensures that preemption capability is only enabled if the TLV is sent in a frame with the correct address. If the TLV is sent to any other address, the preemption capability information in it will be ignored.

CI 79 SC 79.3.7.2 P 28 L 53 # 3  
Hajduczenia, Marek Bright House Network

Comment Type ER Comment Status A

Incorrect reference to 802.1Q

*SuggestedRemedy*

Is "IEEE 802.1Q" and should be "IEEE Std 802.1Q"  
There are multiple locations in the draft where such a change is needed (some outside of text modified in D2.1)

Response Response Status W

ACCEPT.

CI 90 SC 90.4.3.1.1 P 32 L 22 # 26  
Tretter, Albert Siemens AG

Comment Type E Comment Status R

In clause the description the text is underlined. It is not clear why? This is also the case at other clauses at page 33 and 34.

*SuggestedRemedy*

Either explain why underlined or remove it

Response Response Status C

REJECT. It is explained. See the note on editing instructions on page 16. When the editing instruction is "change," the change to the text is shown by underlining new text and strike through of deleted text.

CI 99 SC 99.1 P 35 L 22 # 18  
Remein, Duane Huawei

Comment Type E Comment Status A

This wording is clumsy and can easily be improved.

"the MAC Merge sublayer may prevent the start of transmission of packets from the pMAC."

*SuggestedRemedy*

Change to:

"the MAC Merge sublayer may prevent the start of packet transmission from the pMAC."

Response Response Status C

ACCEPT.

CI 99 SC 99.3.3 P 40 L 46 # 27  
Marris, Arthur Cadence Design Syst

Comment Type E Comment Status R

The text "additional fragment counter" suggests that the counter is counting additional fragments which is incorrect.

*SuggestedRemedy*

Change text from:

"and includes an additional fragment counter octet (frag\_count) following the SMD"

To:

"and following the SMD has an additional octet for the fragment count (frag\_count)"

Response Response Status C

REJECT. Out of scope



CI 99 SC 99.3.6 P 42 L 29 # 37  
Zimmerman, George CME Consulting

Comment Type T Comment Status R

"NOTE—0x0000 is XORed with two octets that contain the higher order coefficients of the CRC and 0xFFFF is XORed with the two octets that contain the lower order coefficients of the CRC." - the first part of this statement is meaningless. XOR'ing 0x0000 with something is doing NOTHING. It leaves the reader scratching his/her head as to what was meant.

*SuggestedRemedy*

Delete the first sentence of the note, so that it reads:  
"0xFFFF is XORed with the two octets that contain the lower order coefficients of the CRC."

Response Response Status C

REJECT. 0x0000 FFFF is XORed with the whole CRC (so yes, the two high order octets are unchanged and the low order octets are flipped). The note was added to make it absolutely clear which half gets the 0000 and which gets the FFFF.

Also, the Clause 4 CRC is XORed with all 1's so not flipping some of the bits is what is different.

CI 99 SC 99.3.6 P 42 L 29 # 19  
Remein, Duane Huawei

Comment Type ER Comment Status R

Note appears to be using an incorrect paragraph tag

*SuggestedRemedy*

Change to Note (Time New Roman, 9pt)

Response Response Status W

REJECT. It is using the note paragraph tag and the font is Times New Roman 9pt.

CI 99 SC 99.3.6 P 43 L 29 # 6  
Hajduczenia, Marek Bright House Network

Comment Type E Comment Status R

Inconsistent format of hex numbers: 0x0000 FFFF, 0x0000 ...

*SuggestedRemedy*

Please use the separation with "-" every two hex symbols - this makes reading much simpler.

Change (for example): 0x0000 to 0x00-00; 0x0000 FFFF to 0x00-00-FF-FF

Response Response Status C

REJECT. The format is consistent always using 0x to indicate a hex number as defined in 1.2.5 Hexadecimal Notation. Checking Section 4, 5 and 6 of IEEE 802.3, none of them use hyphens as separators in hex numbers. There were objections to using hypens as ranges because they can be misunderstood as minus signs and that would apply here too.

The space could be removed in 0x0000 FFFF to make it 0x0000FFFF, but the space makes it easier to read and 0x0000 FFFF is unchanged text and out of scope.

CI 99 SC 99.4.2 P 42 L 52 # 25  
Tretter, Albert Siemens AG

Comment Type E Comment Status A

"...if it is determined that the link partner s ..."  
=> I assume the word "supports" is missing

*SuggestedRemedy*

Proposal: The preemption capability is enabled in the transmit direction only if it is determined that the link partner supports the preemption capability.

Response Response Status C

ACCEPT.

CI 99 SC 99.4.2 P 42 L 53 # 28  
Marris, Arthur Cadence Design Syst

Comment Type ER Comment Status A

Typo

*SuggestedRemedy*

Change:  
"partner s"  
To:  
"partner supports"

Response Response Status W

ACCEPT.



Cl 99 SC 99.4.7.7 P 51 L 31 # 30  
Marris, Arthur Cadence Design Syst

Comment Type TR Comment Status A

The value of the "pActive" and "preempt" variable can change during the PREEMPTABLE\_TX state. This means the transmit state machine can cause fragmentation of a frame with an SMD of 0xD5.

*SuggestedRemedy*

Consider only allowing the pActive variable to change in the IDLE\_TX\_PROC state.

Response Response Status W

ACCEPT IN PRINCIPLE. Also could happen if pActive changes state while transmitting a frame with verification disabled.

The simplest fix would be to create an additional variable to capture the state of pActive when a frame starts: pAllow.

In state SEND\_SMD\_S, add:  
pAllow <= pActive as the first action.  
In the definition of preempt, replace pActive with pAllow.

Cl 99 SC 99.4.8 P 53 L 42 # 17  
Gardner, Andrew Linear Technology

Comment Type T Comment Status R

There is an instance of must in subclause 99.4.8 that pertains to predictable operation of time sensitive data.

*SuggestedRemedy*

The IEEE convention is to use shall instead of must when a specification is mandatory. Consider using shall instead of must.

Response Response Status C

REJECT. Out of scope. Also, this is not intended as a mandatory requirement. It is a statement explaining why delay constraints are important. It is describing an unavoidable situation.

The actual delay constraints have "shall"s.

The existing text is the same as used in other delay constraints subclauses (e.g. 69.3, 70.4, 71.4)

Cl 99 SC Table 99-1 P 41 L 3, 11 # 31  
Kong, Samuel Marvell

Comment Type T Comment Status A

For MII mode, a packet containing Preambles followed by 0xD and 0xA can be decoded as either SMD-E or SMD-C3 depending on the even or odd numbers of Preamble nibbles

*SuggestedRemedy*

Use a different encoded value for SMD-C3 other than 0xAD

Response Response Status C

ACCEPT. Use 0x2A instead of 0xAD

CI 99,1 SC 99,1 P 35 L 39 # 5  
 Hajduczenia, Marek Bright House Network

Comment Type TR Comment Status A

The text which was added in D2.1 could use some technical improvement.  
 "Preemption capability is most useful at lower operating speeds. The duration of a maximum size frame (2000 octets) on a 100 Mb/s link is 160 us and on a 1 Gb/s link is 16 us. This is an upper bound on the additional delay before a MAC Client can send an Express frame when preemption capability is not used. At higher operating speeds the additional delay gets smaller in proportion to the speed."

The frame length for specific speeds it just an example, and should be marked as such. Second, the maximum frame size should be referenced through link to Clause 3 and not explicitly stated (can be changed over time).

The statement "This is an upper bound on the additional delay before a MAC Client can send an Express frame when preemption capability is not used." is out of place. 2000 byte frame is also not correct - it is 2000 byte packet.

#### SuggestedRemedy

Remove the statement "This is an upper bound on the additional delay before a MAC Client can send an Express frame when preemption capability is not used."  
 Change "The duration of a maximum size frame (2000 octets) on a 100 Mb/s link is 160 us and on a 1 Gb/s link is 16 us" to read "For example, the duration of a maximum size packet (see 3.2.7) on a 100 Mb/s link is 160 us and on a 1 Gb/s link is 16 us"  
 Change "At higher operating speeds the additional delay gets smaller in proportion to the speed." to "At higher operating speed,s this additional delay gets smaller in proportion to the link speed, limiting advantages of the preemption mechanism."

Response Response Status W

ACCEPT IN PRINCIPLE. The statement about upper bound is correct and part of explaining that the expresss packet latency saved by preemption decreases as speed increases.

If maximum packet size changes in the future, the suggested statement that the duration of a maximum size packet takes a specific time would become untrue. E.g. if maximum packet size was increased to 4000 octets, it would become 320 us. If we want an example that isn't impacted by changes in maximum packet size, then it "maximum size" should be deleted.

Use,  
 "For example, the duration of a 2000 octet packet on a 100 Mb/s link is 160 us and on a 1 Gb/s link is 16 us. This is an upper bound on the additional delay before a MAC Client can send an Express frame when preemption capability is not used. At higher operating speeds, this additional delay gets smaller in proportion to the link speed, reducing advantage of the preemption mechanism."

CI 99,1 SC 99,1 P 36 L 29 # 34  
 Kong, Samuel Marvell

Comment Type T Comment Status A

Add a note for further clarification for PAUSE

#### SuggestedRemedy

Add "(see IEEE 802.3 Annex 31B)" right after "PAUSE"

Response Response Status C

ACCEPT IN PRINCIPLE. Since we become part of IEEE 802.3, we say "(see Annex 31B)"