

Final responses

IEEE P802.3bf D3.0 comments

Cl 0 SC 0 P 0 L 0 # 23
Turner, Michelle

Comment Type ER Comment Status A Editorials

This draft meets all editorial requirements.

SuggestedRemedy

Response Response Status W
ACCEPT.

Cl 0 SC 0 P 14 L 1 # 2
Marris, Arthur Cadence Design Syst

Comment Type ER Comment Status A Editorials

Insert required text between contents and introduction. See page 1 of 802.3ba-2010 for reference. Also see section 21.1 of the IEEE standards style manual:

Both types of documents have the same format. The following text shall appear at the beginning of either an amendment or a corrigendum:

NOTE--The editing instructions contained in this <amendment/corrigendum> define how to merge the material contained therein into the existing base standard and its amendments to form the comprehensive standard.

The editing instructions are shown in bold italic. Four editing instructions are used: change, delete, insert, and replace. Change is used to make corrections in existing text or tables.

The editing instruction specifies the location of the change and describes what is being changed by using strikethrough (to remove old material) and underscore to add new material). Delete removes existing material. Insert adds new material without disturbing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. Replace is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editing instructions, change markings, and this NOTE will not be carried over into future editions because the changes will be incorporated into the base standard.315

SuggestedRemedy

Insert the required text as ewcribed in the comment.

Response Response Status W
ACCEPT.

Cl 1 SC 1 P 1 L 1 # 1
Byrd, William PRIVACOM VENTUR

Comment Type G Comment Status R

I voted Approval of this document. But, I do not support this type of format being submitted for ballot. The Standard had an incomplete Introduction, Scope, and general description. It jumped directly into the data, which was full of cross-outs and unexplained edits. The IEEE needs to limit any documents that do not have a full and complete justification for their existence. An average researcher would be hard pressed to make any sense of this document. This document should be able to stand on its own, and repeated references to other standards does not fulfill this obligation.

SuggestedRemedy

Add a complete Introduction, Scope and Justification to this document.

Response Response Status C

REJECT.

The draft of this amendment was prepared in a fashion consistent with other IEEE 802.3 amendments under development at this time and meets all the editorial requirements per existing IEEE style manual regulations, as confirmed by comment #23 in this pool.

The Introduction to the P802.3bf amendment to IEEE Std 802.3 is provided on pages 1 through 4 of D3.0. The Scope, Purpose and Need of the project can be obtained from the IEEE Standards Association Web Site. Under "Manage myBallot Activity" clicking on the P802.3bf link on the left of the page will open the PAR for the P802.3bf project which contains this information. PAR for this project is also available at http://www.ieee802.org/3/time_adhoc/P802_3bf_PAR_802_3_approved_1109.pdf.

Duplicating it in the draft is therefore not necessary. Further information can be obtained from the 5 criteria responses for the P802.3bf project which can be found at: http://www.ieee802.org/3/time_adhoc/P802_3bf_5Criteria_802_3_approved_1109.pdf
The "cross-outs" are explained at the top of page 15 of the draft.

Cl 1 SC 1.3 P 15 L 10 # 39
Booth, Brad Applied Micro (AMCC)

Comment Type E Comment Status A

This is not the first reference to 1588, but should at least one of them contain a trademark?

SuggestedRemedy

Recommend add a trademark to this reference to 1588 as previous references in the front matter will disappear when merged into the base document.

Response Response Status C

ACCEPT IN PRINCIPLE.

Implement together with comment #33, which moves the reference to bibliography.

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Cl 1 SC 1.3 P 15 L 10 # 33
Frazier, Howard M Broadcom Corporation

Comment Type TR Comment Status A

I don't think that 1588 rises to the level of an indispensable reference, which must be at hand when implementing this standard. I am all for including a mention of 1588, and saying that 802.3bf is intended to provide support for it. However, I think it should be moved to the bibliography.

SuggestedRemedy

Move 1588 to the bibliography

Response Response Status W

ACCEPT.

Cl 1 SC 1.3 P 15 L 5 # 6
Anslow, Peter Ciena Corporation

Comment Type E Comment Status A Editorials

Editing instruction "Insert into the list at the appropriate location" is not in the format used by IEEE staff in recent published amendments

SuggestedRemedy

Change to "Insert the following references in alphanumerical order:"

Response Response Status C

ACCEPT.

Cl 1 SC 1.3 P 15 L 7 # 38
Booth, Brad Applied Micro (AMCC)

Comment Type E Comment Status A Editorials

IEEE P802.1AS, Timing and Synchronization for Time-Sensitive Applications in Bridged Local Area Networks, draft 7.5, published 2010.10.16 is very explicit in which draft should be used.

SuggestedRemedy

Recommend striking draft number and published date. Changes to 802.1AS should not impact .3bf.

Response Response Status C

ACCEPT.

During the Working Group ballot, it was suggested that a specific draft version was referenced due to work in progress in 802.1AS project. For the time being, it would be probably preferable to leave it as it is, just update the draft to the latest number as available (7.7 right now).

802.1AS is expected to finalize publication prior to completion of this ammendment.

No changes to the draft.

See also comment #34.

Cl 1 SC 1.3 P 15 L 7 # 34
Frazier, Howard M Broadcom Corporation

Comment Type TR Comment Status A

I don't think that 802.1AS rises to the level of an indispensable reference, which must be at hand when implementing this standard. I am all for including a mention of 802.1AS, and saying that 802.3bf is intended to provide support for it (especially since it appears in the title of the standard!) However, I think it should be moved to the bibliography.

SuggestedRemedy

Move 802.1AS to the bibliography

Response Response Status W

ACCEPT.

Cl 1 SC 1.4 P 15 L 19 # 7
Anslow, Peter Ciena Corporation

Comment Type E Comment Status A Editorials

Editing instruction "Insert into the ordered list and renumber as appropriate" is not in the format used by IEEE staff in recent published amendments

SuggestedRemedy

Change to "Insert the following new definition into the definitions list, in alphanumerical order:"

Response Response Status C

ACCEPT.

Cl 1 SC 1.4 P 15 L 21 # 28
Thaler, Patricia Broadcom Corporation

Comment Type ER Comment Status R

This is not a definition - just an acronym expansion

SuggestedRemedy

Make consistent with the other Interface descriptions (e.g. 1.4.50 and 1.4.51). The acronym goes in paranthesis after the full name. Text should be something like "The interface between _ and_ for___".

Response Response Status W

REJECT.

Since this is not a physical interface, we have not provided definitions of abstract interfaces in Clause 1. 802.3az-2010 has the definition of the LPI client service interface introduced in precisely the same manner in clause 78 (78.1.2).

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Cl 1 SC 1.4 P 15 L 21 # 8
 Anslow, Peter Ciena Corporation
 Comment Type E Comment Status A Editorials
 "Interface, as specified in IEEE P802.3bf, Clause 90" is not the format previously used for references to the amendment (see 802.3av or 802.3ba)
 SuggestedRemedy
 Change to "Interface. (See IEEE Std 802.3, Clause 90.)"
 Response Response Status C
 ACCEPT.

Cl 1 SC 1.5 P 15 L 25 # 9
 Anslow, Peter Ciena Corporation
 Comment Type E Comment Status A Editorials
 Editing instruction "Insert a new abbreviation to the list, sort the list alphabetically:" is not in the format used by IEEE staff in recent published amendments. Also, there is more than one new abbreviation.
 SuggestedRemedy
 Change to "Insert the following new abbreviations into the abbreviations list, in alphabetical order:"
 Response Response Status C
 ACCEPT.

Cl 30 SC 30.12 P 19 L 3 # 12
 Anslow, Peter Ciena Corporation
 Comment Type E Comment Status A Editorials
 This amendment adds 30.12 Management for oTimeSync entity. But IEEE Std 802.3bc-2009 already inserted 30.12 Layer Management for Link Layer Discovery Protocol (LLDP)
 SuggestedRemedy
 Unless there is a good reason to insert this new text before the existing 30.12 (in which case amend the editing instruction to say insert before 30.12 added by IEEE Std 802.3bc) change this to be 30.13 inserted after 30.12.3.1.13 added by IEEE Std 802.3bc.
 Response Response Status C
 ACCEPT.
 Change the references from 30.12.xxxx to 30.13.xxxx where needed throughout the draft.

Cl 30 SC 30.12.1.1 P 19 L 22 # 41
 Thompson, Geoffrey Independent
 Comment Type G Comment Status A Editorials
 Grammar:
 "then the value stored in this attribute equals to the logical OR operation over the values..."
 SuggestedRemedy
 CHANGE TO:
 "then the value stored in this attribute is equal to the logical OR operation over the values..."
 (The same problem exists in 30.12.1.2, line 34)
 Response Response Status C
 ACCEPT.

Cl 30 SC 30.12.1.3 P 19 L 38 # 17
 Hajduczenia, Marek ZTE Corporation
 Comment Type T Comment Status A
 "composed of the following instantiated MDIO registers" - change to "accounting for the values stored in the following instantiated MDIO registers"
 Similar change to be made to page 20, line 14; page 20, line 34; page 21, line 3
 SuggestedRemedy
 per comment
 Response Response Status C
 ACCEPT IN PRINCIPLE.
 "composed of the following instantiated MDIO registers" - change to "accounts for the sum of the values of the registers in the instantiated sublayers"
 Similar change to be made to page 20, line 14; page 20, line 34; page 21, line 3

CI 30 SC 30.12.1.3 P 19 L 45 # 24
Garner, Geoffrey Samsung

Comment Type TR Comment Status A

This subclause indicates that the aTimeSyncDelayTXmax managed object is the maximum data delay as specified in 90.7, expressed in units of ns. Figure 90-3 in 90.7 illustrates the data delay between the bottom of the MDI and the top of the xMII, and 90.7 also explains that the transmit path delay is measured from the input of the beginning of the SFD at the xMII to its presentation by the PHY to the MDI.

However, 30.12.1.3 then goes on to talk about multiple maximum transmit path delay values, for the PMA/PMD, WIS, PCS, PHY XS, DTE XS, and TC. But, there is no clear explanation of what the individual values for each of these sublayers represents, as 90.7 does not talk about delay values for these sublayers but only about total delay between the bottom of the MDI and top of the xMII. It appears that each value is the delay for the respective sublayer, but no explicit description of this is given. It would be useful to clarify this, to ensure that a higher-layer TimeSync client (e.g., IEEE 802.1AS, IEEE 1588) will use these values correctly.

In addition, not all the sublayers are present for every rate interface. If a sublayer is not present, it is not clear whether the respective value is zero, is undefined, or is simply not present. It would be useful to clarify which of these possibilities (or some other possibility) is intended.

This same comment applies to the aTimeSyncDelayTXmin (30.12.1.4), aTimeSyncDelayRXmax (30.12.1.5), and aTimeSyncDelayRXmin (30.12.1.6) managed objects.

SuggestedRemedy

Clarify whether the individual values for the PMA/PMD, WIS, PCS, PHY XS, DTE XS, and TC in 30.12.1.3, 30.12.1.4, 30.12.1.5, and 30.12.1.6 are respective maximum and minimum transmit and receive delays for each sublayer (or, if this is not correct, clearly define what these individual values represent). Clarify, for the case where a sublayer is not present for a particular interface, whether the respective value for that sublayer is 0, is undefined, or is not present (or if something else is intended).

Response Response Status W

ACCEPT IN PRINCIPLE.

See comment #17. This resolves the highlighted ambiguity regarding the registers in non-instantiated sublayers. Regarding the reference points for individual sublayers, the TF agreed during the past meetings, that the only normative reference points for delay measurement is the xMII and MDI, and the total transmit / receive delay accounts for the sum of delays for individual sublayers (present in the given PHY).

CI 30 SC 30.12.1.3 P 19 L 47 # 29
Thaler, Patricia Broadcom Corporation

Comment Type TR Comment Status A

"accounts for" is ambiguous. Does that mean that it is the sum of the values, the maximum of the values, ...? This comment also applies to the 3 subsequent subclauses.

SuggestedRemedy

Replace "accounts for" with an unambiguous statement of how the values are combined. If there is an explanation elsewhere, reference the explanation.

Response Response Status W

ACCEPT IN PRINCIPLE.

See comment #17 for changes to the referenced text. The statement 'accounts for the sum of' is to allow other system-related delays to be included e.g. XAUI media delay.

CI 30 SC 30.12.1.4 P 20 L 13 # 31
Frazier, Howard M Broadcom Corporation

Comment Type TR Comment Status A

The phrase "the value stored in this attribute accounts for minimum transmit path data delay values, composed of the following..." does not provide enough information to the implementer. Any delay associated with the TS_SFD_Detect_TX function must be accounted for as well, and this must be subtracted from the value reported in the aTimeSyncDelayTXmin attribute.

SuggestedRemedy

Add to the end of BEHAVIOUR DEFINED AS: "The value of the delay associated with the TS_SFD_Detect_TX function shall be subtracted from the sum of the minimum transmit path data delay values reported via the MMD registers."

Response Response Status C

ACCEPT IN PRINCIPLE.

Add the following note to the end of page 41:

"Note-The data delay values represent only the data delay in the PHY sublayers. The TimeSync Client may need to adjust for delays within the gRS. For example, the TimeSync Client may need to subtract the value of the delay associated with the TS_SFD_Detect_TX function from the sum of the minimum transmit data delay values reported by individual MMD(s). Likewise, the TimeSync Client may need to add the value of the delay associated with the TS_SFD_Detect_RX function to the sum of the maximum receive data delay values reported by individual MMD(s)."

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CI 30 SC 30.12.1.5 P 20 L 33 # 32
Frazier, Howard M Broadcom Corporation

Comment Type TR Comment Status A

The phrase "the value stored in this attribute accounts for maximum receive path data delay values, composed of the following..." does not provide enough information to the implementer. Any delay associated with the TS_SFD_Detect_RX function must be accounted for as well, and this must be added to the value reported in the aTimeSyncDelayRXmax attribute.

SuggestedRemedy

Add to the end of BEHAVIOUR DEFINED AS: "The value of the delay associated with the TS_SFD_Detect_RX function shall be added to the sum of the maximum receive path data delay values reported via the MMD registers."

Response Response Status C

ACCEPT IN PRINCIPLE.
See comment #31.

CI 30 SC 30.2.3 P 17 L 12 # 10
Anslow, Peter Ciena Corporation

Comment Type E Comment Status A Editorials

Editing instruction "Replace Figure 30-3 with that presented below (as last modified by IEEE Std 802.3av and IEEE Std 802.3at):" would be clearer if re-arranged.

SuggestedRemedy

Change to "Replace Figure 30-3 (as last modified by IEEE Std 802.3av and IEEE Std 802.3at) with that below:"

Response Response Status C

ACCEPT.

CI 30 SC 30.2.5 P 17 L 21 # 11
Anslow, Peter Ciena Corporation

Comment Type E Comment Status A Editorials

The thick border on the right hand side of Table 30-6 is missing

SuggestedRemedy

Fix the border

Response Response Status C

ACCEPT.

CI 45 SC 45.2.1 P 23 L 4 # 3
Marris, Arthur Cadence Design Syst

Comment Type ER Comment Status A Editorials

"Change" should be used instead of "Modify" in the editing instructions.

SuggestedRemedy

Change "modify" to "change" for all relevant editing instructions.

Response Response Status W

ACCEPT.

CI 45 SC 45.2.1.100 P 23 L 22 # 13
Anslow, Peter Ciena Corporation

Comment Type E Comment Status A Editorials

Editing instruction ends "after the last subclause added in IEEE Std 802.3ba, 45.2.1:" which is difficult to understand.

SuggestedRemedy

Change to "after the last subclause added in 45.2.1 by IEEE Std 802.3ba:". Make the equivalent change to the editing instruction for 45.2.3.40 to 42

Response Response Status C

ACCEPT.

CI 45 SC 45.2.1.100 P 23 L 22 # 14
Anslow, Peter Ciena Corporation

Comment Type E Comment Status A Editorials

The headings for 45.2.1.100 through 45.2.1.102 are missing a space between the subclause number and the title. Also applies to 45.2.3.40 through 45.2.3.42, 45.2.4.10 through 45.2.4.12, 45.2.5.10 through 45.2.5.12 and 45.2.6.14 through 45.2.6.16

SuggestedRemedy

Correct the Autonumber format of the H4,1.1.1.1 style in clause 45

Response Response Status C

ACCEPT.

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Cl 45 SC 45.2.1.100 P 23 L 28 # 30
Thaler, Patricia Broadcom Corporation

Comment Type T Comment Status R

This comment applies to the TimeSync capability registers for all MMDs. Why are their separate capabilities bits for the send and receive? It seems that the information is only useful if it is provided for both directions and that implementations are unlikely to support the registers for one direction without supporting the other.

SuggestedRemedy

Consider using just one capability bit or respond to this comment with a use case for supporting the information for only one direction.

Response Response Status C

REJECT.
The added flexibility does not impact negatively the target functionality this project is looking for. It was communicated several times that such a flexibility might be indeed desired in some special use cases. Consider that this standard is targeting 802.1AS and 1588v2, but other industrial applications might also take advantage of it.

No changes to the draft

Cl 45 SC 45.2.2.20 P 24 L 50 # 15
Anslow, Peter Ciena Corporation

Comment Type E Comment Status A Editorials

"immediately after the last subclause in IEEE Std 802.3-2008, 45.2.2." is unnecessarily complicated.

SuggestedRemedy

Change to "immediately after 45.2.2.19:" Make equivalent change to instructions for 45.2.4.10 to 12, 45.2.5.10 to 12, 45.2.6.14 to 16

Response Response Status C

ACCEPT.

Cl 90 SC 90.1 P 35 L 6 # 25
Barnette, James Vitesse Semiconducto

Comment Type E Comment Status A Editorials

Synchronisation is misspelled

SuggestedRemedy

Change to Synchronization

Response Response Status C

ACCEPT.

Cl 90 SC 90.4 P 35 L 32 # 26
Barnette, James Vitesse Semiconducto

Comment Type E Comment Status A Editorials

"service interface" should be capitalized as part of TSSI acronym

SuggestedRemedy

Capitalize "Service Interface"

Response Response Status C

ACCEPT.

Cl 90 SC 90.4.1.2 P 36 L 51 # 18
Hajduczenia, Marek ZTE Corporation

Comment Type T Comment Status A

"The TimeSync Client can use the indication of egress and ingress of packets provided by the TSSI" change to "The TimeSync Client can use the indication of event corresponding to the egress and ingress of packets provided by the TSSI" to make sure that it is absolutely clear we do not transmit time of such event but the indication of such an event

SuggestedRemedy

per comment

Response Response Status C

ACCEPT IN PRINCIPLE.

"The TimeSync Client can use the indication of egress and ingress of packets provided by the TSSI" change to "The TimeSync Client can use the indication of the event corresponding to the egress and ingress of packets provided by the TSSI" to make sure that it is absolutely clear we do not transmit time of such event but the indication of such an event

Final responses

IEEE P802.3bf D3.0 comments

Cl 90 SC 90.4.1.2 P 37 L 1 # 19
Hajduczenia, Marek ZTE Corporation

Comment Type T Comment Status A

The first paragraph should be modified to further clarify any potential doubts on the use of indication in the context of TSSI. Suggest to rewrite the text to "The TimeSync Client can use the indication of the event corresponding to the egress and ingress of packets at the xMII provided by the TSSI, combined with the information provided by the TimeSync PHY transmit data delay and TimeSync PHY receive data delay (see 30.12.1), to determine the egress and ingress of packets at the MDI."

Suggest to use references to 30.12.1 definitions, which are mandatory while the Clause 45 definitions are optional.

SuggestedRemedy
per comment

Response Response Status C

ACCEPT IN PRINCIPLE.

Modify the first paragraph to read "The TimeSync Client can use the indication of the event corresponding to the egress and ingress of packets at the xMII provided by the TSSI, together with the information provided by the TimeSync PHY transmit data delay and TimeSync PHY receive data delay (see 30.12.1)."

Suggest to use references to 30.12.1 definitions, which are mandatory while the Clause 45 definitions are optional.

Cl 90 SC 90.4.1.2 P 37 L 3 # 16
Anslow, Peter Ciena Corporation

Comment Type T Comment Status R

This says "determine the egress and ingress of packets at the MDI.". Isn't the point to determine the egress and ingress times? You wouldn't need the delays just to determine the egress and ingress.

SuggestedRemedy

Change to "determine the egress and ingress times of packets at the MDI."

Response Response Status C

REJECT.

See comment #19 for changes to the text. The point of this project is NOT to provide the times when packets cross the MDI.

Cl 90 SC 90.4.3.1.1 P 37 L 30 # 20
Hajduczenia, Marek ZTE Corporation

Comment Type T Comment Status D

Add the following statement for clarification "Otherwise, no primitive is generated". Similar change on page 37, line 54

SuggestedRemedy
per comment

Proposed Response Response Status Z
REJECT.

This comment was WITHDRAWN by the commenter.

Cl 90 SC 90.5.1 P 38 L 28 # 21
Hajduczenia, Marek ZTE Corporation

Comment Type T Comment Status A

"(SFD=DETECTED)" should be moved to the end of the sentence it is located in. That sounds better and more logical, since the detection condition is defined at the end of the sentence

SuggestedRemedy
per comment

Response Response Status C
ACCEPT.

Cl 90 SC 90.5.2 P 38 L 37 # 22
Hajduczenia, Marek ZTE Corporation

Comment Type T Comment Status A

"(SFD=DETECTED)" should be moved to the end of the sentence it is located in. That sounds better and more logical, since the detection condition is defined at the end of the sentence

SuggestedRemedy
per comment

Response Response Status C
ACCEPT.

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CI 90 SC 90.6 P 39 L 30 # 27
 Barnette, James Vitesse Semiconducto
 Comment Type E Comment Status A Editorials
 "Management Features" should not be capitalized
 SuggestedRemedy
 Remove capitalization changing to "management features"
 Response Response Status C
 ACCEPT.

CI 90 SC 90.7 P 41 L 30 # 35
 Frazier, Howard M Broadcom Corporation
 Comment Type TR Comment Status R
 As the data delay values are reported in units of ns (as stated in Clause 45), there is an implied precision to the measurement, and this should be stated.
 SuggestedRemedy
 Add the following sentence to the end of 90.7: "The data delay measurements are reported with an implied precision of one ns."
 Response Response Status W
 REJECT.
 We are only specifying the delays are reported in the units of ns. There are no implied requirements for the precision of the measurements of such delay values.

CI 99 SC 99 P 1 L 34 # 36
 Booth, Brad Applied Micro (AMCC)
 Comment Type E Comment Status A Working Group review, Editorials
 D3.0 is not in Working Group review.
 SuggestedRemedy
 Delete following sentence from paragraph:
 Draft D3.0 is prepared by the IEEE 802.3bf Ethernet Support for the IEEE P802.1AS Time Synchronization Protocol Task Force for Working Group review.
 Response Response Status C
 ACCEPT.

CI 99 SC 99 P 1 L 35 # 4
 Anslow, Peter Ciena Corporation
 Comment Type E Comment Status A Working Group review, Editorials
 Says "for Working Group review"
 SuggestedRemedy
 Change to "for Sponsor ballot recirculation" (for D 3.1)
 Response Response Status C
 ACCEPT.
 See resolution to comment #36

CI 99 SC 99 P 4 L 45 # 5
 Anslow, Peter Ciena Corporation
 Comment Type E Comment Status A 802.3az, Editorials
 IEEE Std 802.3az has now been published
 SuggestedRemedy
 Change 201x to 2010
 Response Response Status C
 ACCEPT.
 See response to comment #37

CI 99 SC 99 P 4 L 45 # 37
 Booth, Brad Applied Micro (AMCC)
 Comment Type E Comment Status A 802.3az, Editorials
 802.3az can be updated to be 2010.
 SuggestedRemedy
 Update IEEE Std 802.3az(TM)-201X to be IEEE Std 802.3az(TM)-2010.
 Response Response Status C
 ACCEPT.

Cl **99** *SC* **99** *P* **4** *L* **45** #

Booth, Brad Applied Micro (AMCC)

Comment Type **E** *Comment Status* **A**
Missing a reference to IEEE Std. 802.3bd-201x.

SuggestedRemedy
Add reference.

Response *Response Status* **C**
ACCEPT IN PRINCIPLE.
Add the followign text of the reference:
"IEEE Std 802.3bd-201x
This amendment includes changes to IEEE Std 802.3-2008. This amendment add changes required to define a MAC Control Frame to support Priority-based Flow Control."