

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 00	SC	P	L	# 1
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James, David V.

Comment Type	TR	Comment Status	R
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This document does not conform to the IEEE Style Manual.

A couple of examples:

- 1) ALL CAPS and lower case are mixed in figure text
- 2) Multiple words for the same thing

DESTINATION ADDRESS

Destination Address

destination address

DA

SuggestedRemedy

Conform to the IEEE Style Manual.

If the project editor doesn't understand the IEEE Style Manual, please request assistance from the IEEE Editors.

Proposed Response	Response Status	W
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REJECT.

As an amendment to an existing document, effort is being made to retain consistency with the base document within a given clause.

CI 00	SC	P	L	# 123
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Law, David

3Com

Comment Type	E	Comment Status	D
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Where we are changing text that currently says '.. shall not be tagged frames ...' or similar to ' .. shall not be Q-tagged or envelope frames ..' or similar shouldn't we be changing such text to simply say '.. shall be basic frames ..' so that we don't have to do this yet again in the future - I know - we'll never define another.

Examples:

Subclause 43.4.2.2, page 62, line 14

Subclause 43.5.3.2, page 62, line 23

Subclause 43.7.15, page 62, line 34

Subclause 43.7.23, page 62, line 49

Subclause 43.7.23, page 62, line 51

Subclause 43B.2, page 63, line 39

Subclause 43B.6.2.3, page 64, line 9

Subclause 57.4.2, page 65, line 18

Subclause 57.7.3.3, page 66, line 7

Subclause 64.3.6, page 93, line 38

Subclause 64.4.4.4, page 93, line 51

SuggestedRemedy

See comment.

Proposed Response	Response Status	W
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PROPOSED ACCEPT.

Accepting this comment would simplify the changes and the future maintenance of 802.3.

CI 00	SC	P01	L01	# 3
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Daines, Kevin

World Wide Packets

Comment Type	E	Comment Status	D
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The next draft should contain embedded cross-references for all inserted or changed text. See comment on 4.2.7.1 for an example.

SuggestedRemedy

As per comment

Proposed Response	Response Status	W
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PROPOSED ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 01 SC 1.4 P 10 L 38 # 125
Law, David 3Com

Comment Type T Comment Status D

The text for Q-tagged frame includes some information about the use of the additional octets yet the envelope frame description does not.

SuggestedRemedy

Suggest that some of the text from the note of Page 17, line 34 onwards be included here.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change:

1.4.xxx envelope frame: A MAC frame that carries Length/Type field with the Type interpretation that may indicate additional encapsulation information within the MAC client data and has a maximum length of 2000 octets.

The envelope frame is intended to allow inclusion of additional prefixes and suffixes required by higher layer encapsulation protocols. The encapsulation protocols may use up to 482 octets.

CI 01 SC 1.4 P 10 L 38 # 5
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Missing word

SuggestedRemedy

Change "carries Length/Type" to "carries a Length/Type"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 01 SC 1.4.127 P 10 L 26 # 75
Dawe, Piers Agilent Technologies

Comment Type T Comment Status A

In the definition of Q-tagged frame, I don't know what the 'only' is meant to imply, but it implies to me that it is a frame with no significant payload apart from the Q-tag.

SuggestedRemedy

Delete the 'only'.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Reword:

Q-tagged frame: A basic frame with the addition of a single 4 octet IEEE 802.1Q tag inserted between the source address and the Length/Type fields and has a maximum length of 1522 octets.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 01 SC 1.4.127 P 10 L 26 # 74
Dawe, Piers Agilent Technologies

Comment Type ER Comment Status A

This draft is greatly improved because of the clarity around 'packet' and 'frame'. But as the editor points out, the base document prefers 'frame' rather than 'data frame' in a ratio 1343 to 10. 31.4 says that MAC Control frames are data frames. Yet 31.5.1 says '... determine whether it is destined for the MAC client (Data frame) or for a specific function within the MAC Control sublayer entity itself (MAC Control frame). This is going round in circles (and don't imagine that a 'Data frame' can be distinguished from a 'data frame'. If it sounds the same, it can mean the same - case law on validity of an IOU.) The easy way forward is to agree with the usage in the document and change the definition.

SuggestedRemedy

Move the definition to become:
1.4.x frame: The principal part of a packet. Consists of the Destination Address, Source Address, Length/Type, MAC client data, Pad (if required), and Frame Check Sequence. Change all 'data frame's in 802.3as to 'frame' or 'packet', except in 31 and its annexes when distinguishing MAC client frames from MAC Control frames. I doubt it's worth scrubbing the rest of 802.3 for just one or two usages per clause, which are not likely to mislead.

Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

The 802.3as TF had considerable discussions regarding the usage of frame, data frame and packet at the September 2005 interim meeting. The conclusion was to provide a consistent definition and usage of data frame and packet in Clauses 3 and 31. Since frame is used variably as data frame, packet and even an entity containing inter-packet symbols, in various PHY clauses, the 802.3as TF decided to not open up every clause that contains the term frame or packet.

Motion to change 'data frame' to 'MAC frame' throughout clauses 1-4 & as appropriate in clause 31.

1st: Pat Thaler 2nd: Tom Dineen
Y: 5 N: 0 A: 5

CI 01 SC 1.4.343 P 10 L 29 # 4
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Since this definition has changed, the editing instruction needs to be changed.

SuggestedRemedy

Insert the following editorial instruction:

"Change the following definition and insert in alphabetical order:" after 1.4.127 and before 1.4.343.

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 02 SC 2.1 P 11 L 34 # 6
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Punctuation

SuggestedRemedy

Remove 2nd period at end of paragraph.

Proposed Response Response Status W
PROPOSED ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 02 SC 2.1 P 13 L 01 # 76
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A

Now that we have introduced a family of nearly-identical primitive names, it doesn't seem feasible to illustrate the whole story with this drawing. For example, if I don't have a MAC Control sublayer, I now don't know what the primitives are called. Are they MCF:MA_DATA.x, MAC:MA_DATA.x or just MA_DATA.x? Is this colon notation acceptable, is it used anywhere else in 802.3? It might be useful in other clauses, so we should use a generally applicable notation.

SuggestedRemedy

Insert a new figure 2-1 before this one, showing the situation without the Control sublayer. Add text to explain the notation.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

The colon notation was used first in 802.3ad Link Aggregation (see Clause 43). 802.3ah EFM OAM also uses this notation in Clause 57.

Clause 2 should be kept fairly simple. Multiple figures to show optional sublayers above the MAC would make this section long. For instance, to be complete, this section would then need with/without MAC Control, with/without Link Aggregation, with/without OAM Control etc.

Figure 2-1 will be simplified to remove the optional MAC control sublayer. The associated text will be modified. Delete the last three sentences of 2.1 and add this sentence to the end -- 'Other clauses in this standard may add optional protocol sublayers above the MAC (e.g., clause 31)'

Move 2.3.3 & 2.3.4 as well as intro text in 2.3.1 to clause 31.3.

CI 02 SC 2.1 P 13 L 12 # 126
Law, David 3Com

Comment Type T Comment Status A

The annotation of 'MAC' beside the MAC Control and MAC sublayers here doesn't seem correct - this is not the MAC.

SuggestedRemedy

Remove the text or change it to something that is correct like 'MAC and MAC Control'.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Per comment 76, MAC control has been removed. MAC will be lined up in the revised figure.

CI 02 SC 2.1 P 13 L 17 # 77
Dawe, Piers Agilent Technologies

Comment Type ER Comment Status A

Please don't use unnecessarily small fonts.

SuggestedRemedy

Search the draft for 7 point (and 6 and maybe 5!), change to at least 8 point where you have space.

Proposed Response Response Status U

ACCEPT IN PRINCIPLE.

The figures added or modified by 802.3as will be reviewed and sub-8pt fonts will be changed to 8pt.

CI 02 SC 2.1 P 13 L 27 # 78
Dawe, Piers Agilent Technologies

Comment Type E Comment Status A

What does MCF stand for? D2.0#228 said it would be MCS.

SuggestedRemedy

Either way, add it to 1.5 Abbreviations.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Abbreviations are added per figure

CI 03 SC 3.1.1 P 14 L 45 # 2
Lior, Ayal TeraChip

Comment Type E Comment Status D NON-VOTER

MAC frame was replaced by MAC packet.
A layer 2 device usually handles frames.
The entire section uses frames (e.g. figure 3-1)

SuggestedRemedy

Suggest renaming it back to frame

Proposed Response Response Status W

PROPOSED REJECT.

The 802.3as TF spent considerable time at the September 2005 interim discussing this topic. The current direction of the draft is consistent with the resolutions passed at that meeting.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 03 SC 3.1.1 P 14 L 47 # 7
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

"Start Frame Delimiter" is inconsistent with surrounding field names, in particular "frame check sequence".

SuggestedRemedy

Change "Start Frame Delimiter (SFD)" to "start frame delimiter (SFD)"

Proposed Response Response Status C
ACCEPT.

CI 03 SC 3.1.1 P 14 L 50 # 8
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Missing acronym

SuggestedRemedy

Change "frame check sequence field" to "frame check sequence (FCS) field"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 03 SC 3.1.1 P 15 L 02 # 9
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Since Clause 3 applies to both the Clause 4 MAC and the Annex 4A MAC, "CSMA/CD" is unnecessary here.

SuggestedRemedy

Remove "CSMA/CD" to read as follows: "that are determined by the specific implementation of the MAC."

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 03 SC 3.1.1 P 15 L 37 # 127
Law, David 3Com

Comment Type T Comment Status A

In Figure 3-1 it appears that the Extension is not part of the Packet however the text on page 14, line 52 seems to indicate it is.

SuggestedRemedy

Include the Extension field in the packet.

Proposed Response Response Status C
ACCEPT.

CI 03 SC 3.1.1 P 15 L 51 # 10
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

Wrong term is used.

SuggestedRemedy

Change "frame" to "packet" since Figure 3-1 shows the "Packet format" and the statement about octet and bit ordering includes the fields of the packet - not just the (data) frame.

Proposed Response Response Status C
ACCEPT.

CI 03 SC 3.1.1 P 15 L 52 # 128
Law, David 3Com

Comment Type T Comment Status A

Is it the octets of the packet that are transmitted from top to bottom, not just the octets of the frame.

SuggestedRemedy

Change the text '.. of a frame are ..' to read '.. of a packet are ..'.

Proposed Response Response Status C
ACCEPT.

Same as comment #10.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 03 SC 3.1.2 P 16 L 04 # 11
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A
Since PAD is not an acronym, it should be lower case. This will also make its use consistent with 3.1.

SuggestedRemedy
Change "PAD" to "pad" in two places on line 4.

Proposed Response Response Status C
ACCEPT.

CI 03 SC 3.2 P 16 L 32 # 20
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
Awkward grammar.

SuggestedRemedy
Change "Data frame is encapsulated" to "A data frame is encapsulated"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 03 SC 3.2 P 16 L 34 # 21
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
Inclusion of "Ethernet" before "data frame" is unnecessary.

SuggestedRemedy
Remove "Ethernet" to read: "the fields of the data frame"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 03 SC 3.2.2 P 16 L 36 # 12
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A
3.2.2 is not included in P802.3as/D2.1. However, 3.2.2 needs to be changed to be consistent with Clause 3 changes in D2.1.

Wrong term.

SuggestedRemedy
Change "frame" to "data frame" to read as follows: "and indicates the start of a data frame."

Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

Change "frame" to "MAC frame" to read as follows: "and indicates the start of a MAC frame."

CI 03 SC 3.2.2 P 16 L 36 # 13
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A
3.2.2 is not included in P802.3as/D2.1. However, 3.2.2 needs to be changed to be consistent with Clause 3 changes in D2.1.

The title of the subclause 3.2.2 should be changed to match the actual field name.

SuggestedRemedy
Change title of 3.2.2 to read: "Start frame delimiter (SFD) field"

Proposed Response Response Status C
ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 03 SC 3.2.3 P 16 L 36 # 14
Daines, Kevin World Wide Packets

Comment Type ER Comment Status R
3.2.3 is not included in P802.3as/D2.1. However, 3.2.3 needs to be changed to be consistent with Clause 3 changes in D2.1.

SuggestedRemedy

Change "MAC frame" to "data frame" to read as follows:
"Each data frame shall contain two address fields:"

Proposed Response Response Status C
REJECT.

This comment was WITHDRAWN by the commenter.

CI 03 SC 3.2.3 P 16 L 36 # 15
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A
3.2.3 is not included in P802.3as/D2.1. However, 3.2.3 needs to be changed to be consistent with Clause 3 changes in D2.1.

"Destination Address" is inconsistent with the rest of Clause 3.

SuggestedRemedy

Change "Destination Address" to "destination address". There are at least (5) occurrences in 3.2.3.

Proposed Response Response Status C
ACCEPT.

CI 03 SC 3.2.3 P 16 L 36 # 16
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A
3.2.3 is not included in P802.3as/D2.1. However, 3.2.3 needs to be changed to be consistent with Clause 3 changes in D2.1.

"Source Address" is inconsistent with the rest of Clause 3.

SuggestedRemedy

Change "Source Address" to "source address". There are at least (3) occurrences in 3.2.3.

Proposed Response Response Status C
ACCEPT.

CI 03 SC 3.2.4 P 16 L 36 # 17
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A
3.2.4 is not included in P802.3as/D2.1. However, 3.2.4 needs to be changed to be consistent with Clause 3 changes in D2.1.

Both subclause title and subclause text need to be changed.

SuggestedRemedy

Change "3.2.4 Destination Address field" to "3.2.4 Destination address field"

Change "Destination Address" to "destination address" to read as follows: "The destination address field specifies"

Proposed Response Response Status C
ACCEPT.

CI 03 SC 3.2.5 P 16 L 36 # 19
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
3.2.5 is not included in P802.3as/D2.1. However, 3.2.5 needs to be changed to be consistent with Clause 3 changes in D2.1.

CSMA/CD is referenced when Clause 3 applies to both the Clause 4 MAC and the Annex 4A MAC.

SuggestedRemedy

Remove "CSMA/CD" to read as follows: "is not interpreted by the MAC."

Proposed Response Response Status W
PROPOSED ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 03 SC 3.2.5 P 16 L 36 # 18
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

3.2.5 is not included in P802.3as/D2.1. However, 3.2.5 needs to be changed to be consistent with Clause 3 changes in D2.1.

Both subclause title and subclause text need to be changed.

SuggestedRemedy

Change "3.2.5 Source Address field" to "3.2.5 Source address field"

Change "Source Address" to "source address"

Note: (2) occurrences

Proposed Response Response Status C

ACCEPT.

CI 03 SC 3.2.6 P 16 L 44 # 79
Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

What is 'equal to' trying to say? We say 'x equals y' when we think x and y are different things but have the same value. Here, we have an 'identity' not just an equation: 1500 decimal is THE SAME as 05DC hexadecimal.

SuggestedRemedy

Delete 'equal to' on line 44 (not 43) and on line 47.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Propose changing to: "(05DC hexadecimal)"

Propose changing to: "(0600 hexadecimal)"

CI 03 SC 3.2.7 P 17 L 12 # 22
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

Subclause title inconsistent with field name

SuggestedRemedy

Change "3.2.7 MAC Client Data field"
to "3.2.7 MAC client data field"

Proposed Response Response Status C

ACCEPT.

CI 03 SC 3.2.7 P 17 L 14 # 80
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A

Triple meaning for 'n' in 3.2 still misleads even after the changes following D2.0 comments 144 and 189. We can best use the 'n' to keep the FCS section compact and readable. As the FCS is not calculated on the same range of bits as the MAC Client data field, we need to change the other two 'n's - and we need to distinguish between them anyway. Conveniently, they have names defined in 4.2.7.1 but note bits vs. octets.

SuggestedRemedy

Change 'n' to 'dataSize/8' here. In the new 3.2.8, change to 'clientDataSize/8', twice. The 8's in the formula conveniently cancel out, giving a simpler formula.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Since 'n' is not used anywhere else within 3.2.7, propose removing it altogether. The line would now read: "The MAC client data field contains a sequence of octets."

Since 802.3as has split the data and pad subclause (what used to be 3.2.7), 'n' has little significance as the commenter points out. Propose to accept the 2nd half of the suggested remedy. (i.e. in 3.2.8 clientDataSize/8)

CI 03 SC 3.2.7 P 17 L 24 # 81
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status R

Just checking if you really mean 'The maximum size of the MAC client data field is determined by the particular implementation'. In other words, the implementer can choose any number he likes (presumably no smaller than the limits in table 4-2). Or do you mean that the MAC may not (compliantly) use a maximum higher than (different to?) specified, at least for transmission, if not for reception and length checking?

SuggestedRemedy

Rewrite if necessary. I think the best way is to name the actual maximum as used by an implementation and write down rules using equations and inequalities, or a table, showing what values are compliant - maybe separately for Tx and Rx. See another comment for suggested variable name.

Proposed Response Response Status U

REJECT.

Within Clause 4, 4A, it is proposed that the term maxPermittedFrameSize (as suggested by comment #90) be used.

In 3.2.7, the current text and description of the grandfathered frame size limits has so far garnered TF and WG consent.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 03 SC 3.2.7 P17 L 24 # 82
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A

I don't believe that 'Ethernet implementations may support one of three data frames with maximum MAC client data field size as defined below'. I'm sure that a MAC can support very many frames, and if it supports class b) it will probably support class a) also, and so on.

SuggestedRemedy

Rewrite.

Proposed Response Response Status U

ACCEPT IN PRINCIPLE.

Reword as:

Ethernet implementations may support one of three maximum MAC client data field sizes as defined below:

Accept response:
Y: 6 N: 1 A: 2

CI 03 SC 3.2.8 P18 L 01 # 23
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Awkward grammar

SuggestedRemedy

Change "The length of pad field" to "The length of the pad field"

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 03 SC 3.2.9 P18 L 06 # 24
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

Subclause title inconsistent with field name

SuggestedRemedy

Change "3.2.9 Frame Check Sequence (FCS) field"
to "3.2.9 Frame check sequence (FCS) field"

Proposed Response Response Status C

ACCEPT.

CI 03 SC 3.2.9 P18 L 09 # 25
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Since these acronyms are previously defined, their repeated definition in the second sentence is unnecessary.

SuggestedRemedy

Change second sentence: "The frame check sequence (FCS) field contains a 4-octet (32-bit) cyclic redundancy check (CRC) value."

to: "The FCS field contains a 4-octet (32-bit) CRC value."

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 03 SC 3.2.9 P18 L 14 # 114
Law, David 3Com

Comment Type E Comment Status D

Since you may well get this comment from SCC14, and this has already be fixed in IEEE Std 802.3-2005 and is being undone here, we might as well do this now. In equations and realted text quantity symbols should be italicised, to distinguish them from mathematical and unit symbols which are upright).

SuggestedRemedy

Please format this equation, and related text, as they are in IEEE Std 802.3-2005.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 03 SC 3.2.9 P18 L 19 # 83
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A

In FCS calculation, 'The n bits of the frame' is not correct: The FCS is not calculated on the exact frame, and as this whole project is about the length of the frame, we should clear this up.

SuggestedRemedy

Change 'The n bits of the frame' to 'The n bits of the protected fields' here.

Above, change 'the contents of the destination' to 'the contents of the protected fields, which are the destination'.

Proposed Response Response Status C

ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 03 SC 3.2.9 P 18 L 20 # 26
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A
Inconsistent field name

SuggestedRemedy
Change "Destination Address" to "destination address"

Proposed Response Response Status C
ACCEPT.

CI 03 SC 3.2.9 P 18 L 26 # 27
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
Since acronym is previously defined, it should be used for consistency.

SuggestedRemedy
Change: "are placed in the frame check sequence field so"
to: "are placed in the FCS field so"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 03 SC Figure 3-1 P 15 L 35 # 28
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
"see 3.2.7" needs to be cross-reference

SuggestedRemedy
Add cross-reference to 3.2.7

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC P 21 L 15 # 113
Parsons, Glenn Nortel

Comment Type T Comment Status A
This is a lot of work for the editor. In the absence of other suggestions/comments, the editor should just focus on 'data frame' and 'packet' rewording.

SuggestedRemedy
Evaluate the 10+281 cases of 'data frame' and 'packet' and modify if necessary to align with the terminology of the amendment.

Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

See resolution to comment 74 on change to 'MAC frame'.

Discussion decided that additional frame/packet discrepancies in the scope of this project would not be dealt with.

CI 04 SC 4.2.4.1 P 21 L 38 # 29
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
Missing period

SuggestedRemedy
Add period after "octets"

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Comment #87 adds text in this sentence and addresses the missing period.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.2.4.2.1 P 21 L 34 # 86
Dawe, Piers Agilent Technologies

Comment Type T Comment Status R

This sentence is obviously not the whole truth 'Two possible length errors can occur that indicate ill-framed data: the frame may be too long, or its length may not be an integer number of octets.' The obvious third possibility is an apparent too-short frame.

SuggestedRemedy

Append extra sentence 'See 4.2.4.2.2 for frames that are too short.'

Proposed Response Response Status C

REJECT.

The text as stated is actually correct. See 4.2.4.2.2, which discusses collision filtering (half-duplex) and frames less than 64 octets (full-duplex). Hint: an error isn't reported in either case.

As such, the text "two possible length errors" in 4.2.4.2.1 is correct.

CI 04 SC 4.2.4.2.1 P 21 L 38 # 87
Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

maxBasicFrameSize, qTagPrefixSize and maxEnvelopeFrameSize have not been defined yet. Sentence lacks a full stop.

SuggestedRemedy

Append extra sentence 'See 4.4.2.'

Proposed Response Response Status W

PROPOSED ACCEPT.

Propose accepting suggested remedy, with modification as follows: "(see 4.4.2)."

CI 04 SC 4.2.7.1 P 22 L 22 # 30
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Need cross-references.

SuggestedRemedy

Line 22: "see 3.2.7, 4.4" should contains two embedded cross-references.

Line 23: same edit as line 22 above.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 04 SC 4.2.7.1 P 22 L 22 # 67
Barrass, Hugh Cisco Systems

Comment Type T Comment Status A

maxBasicFrameSize is known and fixed. It is always 1518 octets.

SuggestedRemedy

Change:

maxBasicFrameSize = ...; {In octets, see 3.2.7, 4.4}

to:

maxBasicFrameSize = 1518; {In octets, see 3.2.7, 4.4}

Proposed Response Response Status C

ACCEPT.

CI 04 SC 4.2.7.1 P 22 L 23 # 31
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

So it appears the "implementation-dependent" term is used regardless of whether the value for a constant varies based on implementation.

maxBasicFrameSize is constant for all implementations.
maxEnvelopeFrameSize is constant for all implementations.
minFrameSize is constant for all implementations.

Two of the three have the descriptor "implementation-dependent". One (maxBasicFrameSize) does not.

To me, this can be cleaned up a bit.

SuggestedRemedy

Either remove "implementation-dependent" from minFrameSize and maxEnvelopeFrameSize"

-or-

add "implementation-dependent" to maxBasicFrameSize

Proposed Response Response Status W

PROPOSED REJECT.

See comments #67, #68

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.2.7.1 P 22 L 23 # 68
Barrass, Hugh Cisco Systems

Comment Type T Comment Status A
maxEnvelopeFrameSize is not implementation dependent. It is always 2000 octets.

SuggestedRemedy

Change:

maxEnvelopeFrameSize = ...; {In octets, implementation-dependent, see 3.2.7, 4.4}

to:

maxEnvelopeFrameSize = 2000; {In octets, see 3.2.7, 4.4}

Proposed Response Response Status C
ACCEPT.

CI 04 SC 4.2.7.2 P 24 L 19 # 88
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A
This line: ifsStretchSize: 0..(((maxEnvelopeFrameSize) x 8 + headerSize +
interFrameSpacing forces anyone who wants to support WIS to support the new envelope
frame size also - which is retrospective lawmaking. If implementers can all cope with it,
fine...

SuggestedRemedy

If not, or if we don't know, replace 'maxEnvelopeFrameSize' with 'maxBasicFrameSize or
(maxBasicFrameSize + qTagPrefixSize) or maxEnvelopeFrameSize'. But see another
comment to avoid the or...or

Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

Replace maxEnvelopeFrameSize with maxPermittedFrameSize

See comment #90.

CI 04 SC 4.2.7.2 P 24 L 19 # 89
Dawe, Piers Agilent Technologies

Comment Type E Comment Status D
Wrong sort-of-cross. This is an ex in Helvetica.

SuggestedRemedy

Replace by the proper multiplication cross.

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.2.9 P 24 L 19 # 90
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A
This 'maxBasicFrameSize or (maxBasicFrameSize + qTagPrefixSize) or
maxEnvelopeFrameSize' is a mouthful, and it doesn't explicitly say that the MAC should
choose an option it supports. A name for this will help in e.g. writing the management
subclauses.

SuggestedRemedy

Create a new Pascal 'constant' to represent this, and substitute, most places in the draft I
think. maxPermFrameSize?

Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

Create new constant in 4.2.7.1:

maxPermittedFrameSize =
maxBasicFrameSize or (maxBasicFrameSize + qTagPrefixSize) or
maxEnvelopeFrameSize ;
{in octets}

replace usage of 'maxBasicFrameSize or (maxBasicFrameSize + qTagPrefixSize) or
maxEnvelopeFrameSize'
with
'maxPermittedFrameSize'
as appropriate

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.2.9 P 24 L 51 # 32
Daines, Kevin World Wide Packets
Comment Type E Comment Status D
Wrong punctuation.
SuggestedRemedy
Change ", " to "."
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2 P 25 L 52 # 91
Dawe, Piers Agilent Technologies
Comment Type T Comment Status A
wrt 'For historical reasons the MAC sublayer definitions use two similar but subtly different functions, TransmitFrame and ReceiveFrame defined in 4.3.2.3.' Apart from the spelling, I would say that transmit and receive were not subtle distinctions, but diametrical opposites. So the reader doesn't need to know the historical reasons.
SuggestedRemedy
The MAC sublayer definitions use two functions, TransmitFrame and ReceiveFrame, as defined in 4.3.2.3.
Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

Reword 4.3.2:

The services provided to the MAC client by the MAC sublayer are transmission and reception of frames using service primitives MA_DATA.request and MA_DATA.indication, as defined in Clause 2. For historical reasons the MAC sublayer definitions use two functions, TransmitFrame and ReceiveFrame, defined in 4.2.8 and 4.2.9. The relationship between these two functions and the service primitives is defined by the MAC client state diagrams in 4.3.2.1 and 4.3.2.2.

Also delete 4.2.7.4.

CI 04 SC 4.3.2.1.1 P 26 L 05 # 33
Daines, Kevin World Wide Packets
Comment Type E Comment Status D
The "Constants" subclause is empty and should be removed.
SuggestedRemedy
See comment.

Also, make same change to 4A.3.2.1.1
Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2.1.2 P 26 L 10 # 38
Daines, Kevin World Wide Packets
Comment Type E Comment Status D
The lists of variables are most often alphabetical I believe.
SuggestedRemedy
See comment

Also, make same change in 4A.3.2.1.2
Proposed Response Response Status W
PROPOSED ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.3.2.1.2 P 26 L 10 # 39
Daines, Kevin World Wide Packets

Comment Type TR Comment Status A

We're handwaving a bit by not having lengthOrType, data, fcs, and fcsPresent defined in the list of variables. Yet they appear in Figure 4-1.

SuggestedRemedy

Add variable: "lengthOrType"
with description: "The value of the first two octets at the start of the mac_service_data_unit."

Add variable: "data"
with description: "The value of mac_service_data_unit excluding the first two octets (Length/Type field)."

Add variable: "fcsPresent"
with description: "Indicates whether the MA_DATA.request service primitive contained the frame_check_sequence field."

Also, make same changes in 4A.3.2.1.2

Proposed Response Response Status C
ACCEPT.

CI 04 SC 4.3.2.1.2 P 26 L 13 # 35
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A
Spelling

SuggestedRemedy

"sourcve" should be "source"

Also, make same change in 4A.3.2.1.2

Proposed Response Response Status C
ACCEPT.

CI 04 SC 4.3.2.1.2 P 26 L 16 # 36
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Missing space and punctuation.

SuggestedRemedy

Change: "client request(including Length/Type field)"
to: "client request (including Length/Type field)."

Also, make same change to 4A.3.2.1.2

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2.1.3 P 26 L 23 # 40
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

I don't like "incoming" as it lacks direction. In other words, incoming from the PHY or incoming from the MAC client?

SuggestedRemedy

Change description from "The MAC sublayer function invoked to transmit an incoming frame"

to: "The MAC sublayer function invoked to transmit a frame"

Also, make same change in 4A.3.2.1.3

Proposed Response Response Status C
ACCEPT.

CI 04 SC 4.3.2.1.4 P 26 L 28 # 94
Dawe, Piers Agilent Technologies

Comment Type T Comment Status A

Wrong primitive

SuggestedRemedy

Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

See comment #37 for a complete suggested remedy.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.3.2.1.4 P 26 L 28 # 37
Daines, Kevin World Wide Packets

Comment Type TR Comment Status A

The wrong service primitive is defined.

SuggestedRemedy

"MA_DATA.indication" should be changed to "MA_DATA.request"

The description should be changed from: "The service primitive used to transfer an incoming frame to the MAC Control client with the specified parameters. See 2.3.2."

to: "The service primitive used to convey a frame to be transmitted from the MAC client. See 2.3.1."

Also, make same change in 4A.3.2.1.4

Proposed Response Response Status C
ACCEPT.

CI 04 SC 4.3.2.1.5 P 26 L 34 # 43
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

Spelling

SuggestedRemedy

Change "behaviour" to "behavior"

For some reason only Clause 30 uses "behaviour"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2.1.5 P 26 L 34 # 45
Daines, Kevin World Wide Packets

Comment Type E Comment Status D

"Fig" should be spelled out.

SuggestedRemedy

Change "Fig" to "Figure"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2.2.1 P 26 L 38 # 34
Daines, Kevin World Wide Packets

Comment Type E Comment Status A

The "Constants" subclause is empty and should be removed.

SuggestedRemedy

See comment.

Also, make same change to 4A.3.2.2.1

Proposed Response Response Status C
ACCEPT.

CI 04 SC 4.3.2.2.2 P 26 L 46 # 47
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

Spelling

SuggestedRemedy

"sourcve" should be "source"

Also, make same change in 4A.3.2.2.2

Proposed Response Response Status C
ACCEPT.

CI 04 SC 4.3.2.2.2 P 27 L 28 # 48
Daines, Kevin World Wide Packets

Comment Type TR Comment Status A

The opcode variable is not needed in Figure 4-2 and should be removed.

SuggestedRemedy

See comment.

Also, make same change in 4A.3.2.2.2

Proposed Response Response Status C
ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.3.2.2.2 P 27 L 31 # 53
Daines, Kevin World Wide Packets

Comment Type E Comment Status A

As defined in 4.3.2.2.2, the data field does not include the Length/Type field. The current definition appears to indicate it may.

SuggestedRemedy

Change: "The data payload field parsed from the received frame (including Length/Type field)"

to: "The concatenation of the lengthOrType field and the data field."

Also, make same change in 4A.3.2.2.2

Proposed Response Response Status C

ACCEPT.

CI 04 SC 4.3.2.2.2 P 27 L 33 # 54
Daines, Kevin World Wide Packets

Comment Type TR Comment Status A

Two problems with two possible remedies:

First, "reception_status" does not exist in 4.3.2.2.2 and hence can not be referenced in Figure 4-2.

Second, "frame_check_sequence" is identical to "fcs" and therefore does not need to be redefined.

SuggestedRemedy

Either

a) Change "reception_status" in Figure 4-2 to read "ReceiveStatus"

Change "frame_check_sequence" in Figure 4-2 to read "fcs"

Remove variable frame_check_sequence in 4.3.2.2.2

-or-

b) Add variable "reception_status" in 4.3.2.2.2 with description "Takes the value of ReceiveStatus."

Also, make same changes in 4A.3.2.2.2

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Change "fcs" in Figure 4-2 to read "frame_check_sequence"

Remove variable fcs in 4.3.2.2.2

Change "reception_status" in Figure 4-2 to read "ReceiveStatus"

CI 04 SC 4.3.2.2.2 P 27 L 47 # 52
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

Missing carriage return

SuggestedRemedy

Add <carriage return> so "lengthOrType" starts on new line.

Also, make same change in 4A.3.2.2.2

Proposed Response Response Status C

ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.3.2.2.3 P 27 L 39 # 50
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
Missing punctuation

SuggestedRemedy

Add period at end of sentence.

Also, make same change in 4A.3.2.2.3

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2.2.4 P 27 L 45 # 51
Daines, Kevin World Wide Packets

Comment Type TR Comment Status A
Wrong sublayer specified

SuggestedRemedy

Change "MAC Control client" to "MAC client"

Also, make same change in 4A.3.2.2.4

Proposed Response Response Status C
ACCEPT.

CI 04 SC 4.3.2.2.5 P 27 L 49 # 46
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
"Fig" should be spelled out.

SuggestedRemedy

Change "Fig" to "Figure"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2.2.5 P 27 L 49 # 44
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
Spelling

SuggestedRemedy

Change "behaviour" to "behavior"

For some reason only Clause 30 uses "behaviour"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2.2.5 P 28 L 26 # 42
Daines, Kevin World Wide Packets

Comment Type E Comment Status D
Editing instruction is misspelled.

SuggestedRemedy

Change "clasue" to "clause"

Proposed Response Response Status W
PROPOSED ACCEPT.

CI 04 SC 4.3.2.3 P 28 L 30 # 55
Daines, Kevin World Wide Packets

Comment Type TR Comment Status A
Since we've reconciled the long-standing discrepancies between Clause 2 and Clause 4 (the service to humanity), 4.3.2.3 is no longer required and should be removed entirely.

SuggestedRemedy

See comment.

Also, make same change to 4A.3.2.3

Proposed Response Response Status C
ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.3.2.3 P 28 L 54 # 95
Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

First line of function is a widow.

SuggestedRemedy

Keep with next.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 04 SC 4.3.2.3 P 29 L 52 # 116
Law, David 3Com

Comment Type T Comment Status A

This text states 'maxBasicDataSize represents the maximum number of octets that can be carried in the MAC client data field of a frame and is a constant, regardless of whether the frame is a basic, or Qtagged or envelope frame (see 3.2)'.

While I agree that maxBasicDataSize is a constant, if the above is true the maximum MAC client data field for an envelope frame is 1500 which is a direct contradiction of subclause 3.2 which is referenced. According to the definition in 4.2.7.1 (page 22, line 33) maxBasicDataSize is 'the maximum length of the MAC client data field of the basic frame.'.

What I think is being stated here is that the maximum size of the MAC client data field, excluding encapsulation protocols, is always 1500 octets - in a similar way to the note found in subclause 3.2.7.

SuggestedRemedy

Suggest that either this text be changed to read:

maxBasicDataSize represents the maximum number of octets that can be carried in the MAC client data field, excluding encapsulation protocols, of a frame and is a constant, regardless of whether the frame is a basic, or Qtagged or envelope frame (see 3.2 and 3.5).

or:

This text be deleted and the note, or similar, from 3.2.7, be added to the end of this paragraph.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Clause removed, see comment 55.

CI 04 SC 4.3.2.3 P 30 L 01 # 93
Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

Improving the English syntax

SuggestedRemedy

Change 'Destination address through the FCS, inclusive) is either maxBasicFrameSize' to 'Destination address to the FCS, inclusive) is maxBasicFrameSize'.

Proposed Response Response Status W

PROPOSED ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.4.2 P 31 L 01 # 84
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A

This draft is still describing capability options as 'implementations' and talking about 'implementation parameters'. The response to D2.0#121 did not fix the issue, which is important now as it was not before, as we now have explicit options as listed in 30.3.1.1.37 aMaxFrameLength as well as the ones in table 4-2. Therefore, we must distinguish between true implementation choices (how to turn the requirements of the standard into a real product) from choices among options in the standard. Also, D2.0#121 was not implemented per response: for example, 4.2 is still titled 'Specific implementations' and 4.4.2, 'Allowable implementations'.

SuggestedRemedy

Come clean. Choose a new phrase for the three columns of table 4-2, for example 'Port type group' or 'Port class'. Use it instead of 'Values' in table 4-2. Insert three new column headings, 'Up to 100 Mb/s' 'Gigabit Ethernet' and '10 Gigabit Ethernet'. Put the lists of speeds in a new row, parameter 'Port types' (or 'Speeds'). In 3.1.1, 3.2.7 and 3.2.8, change 'implementation parameters' to 'MAC parameters'. In 3.2.8, seeing as there is only one minimum frame size, change 'A minimum frame size is required for correct CSMA/CD protocol operation and is specified by the particular implementation of the standard.' to 'A minimum frame size is required for correct CSMA/CD protocol operation. See 4.2.3.3 and 4.4.' In 4.2.7.1, delete the first and second 'implementation-dependent, ' (because minFrameSize and maxEnvelopeFrameSize always have the same values, even if a MAC may ignore the latter), change the one referring to slotTime to 'according to Port type group' (or 'speed dependent'). In 4.2.7.2, for ifsStretchRatio, change 'implementation dependent, see 4.4' to 'see 4.2.8 and 4.4', for burstLimit, change 'implementation dependent, see 4.4' to 'see 4.2.8 and 4.4', and for jamSize, change 'the value depends upon medium and collision detect implementation' to 'the value depends upon port type and duplex/half-duplex mode. See 4.1.2.2 and 4.4'. In 4.4.2, change the title from 'Allowable implementations' to 'MAC parameters', change 'corresponding implementations' to 'corresponding port types' Change the title of Table 4-2 from 'Implementation Parameters' to 'MAC parameters'. In the five notes, change 'implementations' to 'ports' or 'application' or 'use'. Similarly in 4A. In 5.2.4.1, delete 'implementation-dependent, ' (first time per D2.0 comments 124, 202, second per reason above).

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Only make the following changes to the table.

- change title and text as suggested to 'MAC parameters' and remove use of implementation

- replace 'values' with 'MAC data rate'

- replace first cell with column with 'Up to and including 100 Mb/s'

Also make the following text changes:

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
SORT ORDER: Clause, Subclause, page, line

In 3.1.1, 3.2.7 and 3.2.8, change 'implementation parameters' to 'MAC parameters'.

In 3.2.8, seeing as there is only one minimum frame size, change 'A minimum frame size is required for correct CSMA/CD protocol operation and is specified by the particular implementation of the standard.' to 'A minimum frame size is required for correct CSMA/CD protocol operation. See 4.2.3.3 and 4.4.'

In 4.2.7.1, delete the first and second 'implementation-dependent, ' (because minFrameSize and maxEnvelopeFrameSize always have the same values, even if a MAC may ignore the latter),

In 4.2.7.2, for ifsStretchRatio, change 'implementation dependent, see 4.4' to 'see 4.2.8 and 4.4', for burstLimit, change 'implementation dependent, see 4.4' to 'see 4.2.8 and 4.4', and for jamSize, change 'the value depends upon medium and collision detect implementation' to 'the value depends upon port type and duplex/half-duplex mode. See 4.1.2.2 and 4.4'.

In 4.4.2, change the title from 'Allowable implementations' to 'MAC parameters', change 'corresponding implementations' to 'corresponding MAC data rate'

Change the title of Table 4-2 from 'Implementation Parameters' to 'MAC parameters'.

In the five notes, change 'implementations' to 'operation'. Similarly in 4A.

In 5.2.4.1, delete 'implementation-dependent, '

CI 04 SC 4.4.2 P 31 L 04 # 85
Dawe, Piers Agilent Technologies

Comment Type T Comment Status A

Which group does 2BASE-TL fall in? And 10PASS-TS (full duplex only, I think)?

SuggestedRemedy

Insert 2BASE-TL in the appropriate list. Insert 10PASS-TS if it is not in the '10 Mb/s 1BASE-5 100 Mb/s' group.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

See comment 84

CI 04
SC 4.4.2

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IEEE P802.3as/D2.1 Frame Expansion Comments

CI 04 SC 4.4.2 P 32 L 04 # 115
Law, David 3Com

Comment Type T Comment Status A

This note states that 'the use of 2000 octet frames is not recommended' however this doesn't make it clear what is recommended - are 1990 octet frames okay.

SuggestedRemedy

Suggest that the note be changed to say that use of frames larger than Q-tagged frames is not recommended.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Replace:

the use of 2000 octet frames

with

the use of envelope frames

CI 04 SC 4.5 P 32 L 13 # 92
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status R

Now that we have explicit capability options in this clause, we need something like a PICS form so that an implementer may explicitly declare which options his MAC supports. To save work, we don't need to list out all the common requirements, as is traditional for a PICS - nor do questions about testability and this not being in a physical layer mean that a declaration form or checklist is not required. You could have a minimal PICS that addresses frame length only, but addressing the three classes in table 4-2, and duplex/half-duplex options, would be beneficial.

SuggestedRemedy

Add a PICS, or at least a table of options that an implementer can fill in.

Proposed Response Response Status C

REJECT.

A PICS has never been defined for the MAC. This has been the case despite the addition of full-duplex mode, frame bursting capability, deference (4A), 802.1 Qtags, IPG stretching, etc.

Instead, Clause 30 management attributes have been included for newer implementations.

CI 04 SC Figure 4-1 P 27 L 17 # 41
Daines, Kevin World Wide Packets

Comment Type TR Comment Status A

Wrong parameter.

SuggestedRemedy

Change "fcs" to "frame_check_sequence"

Also, make same change in Figure 4A-1

Proposed Response Response Status C

ACCEPT.

CI 04 SC Figure 4-1 P 27 L 24 # 49
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

Figure name should be changed.

SuggestedRemedy

Change "MAC Transmit state diagram" to "MAC transmit state diagram" to match 4.3.2.1.5.

Also, make same change in Figure 4A-1

Proposed Response Response Status C

ACCEPT.

CI 04A SC 4A P 33 L # 96
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A

Please see my comments against clause 4.

SuggestedRemedy

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Make changes to clause 4A based on agreed changes to clause 4.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI **04A** SC **4A.2.4.2** P **33** L **28** # **60**
Daines, Kevin World Wide Packets

Comment Type **E** Comment Status **D**

Add period after "octets"

SuggestedRemedy

See comment.

Proposed Response Response Status **W**

PROPOSED ACCEPT.

CI **04A** SC **4A.2.7.1** P **34** L **08** # **61**
Daines, Kevin World Wide Packets

Comment Type **ER** Comment Status **A**

minFrameSize and maxEnvelopeFrameSize are not implementation-dependent according to Table 4A-1.

SuggestedRemedy

Remove "implementation-dependent" from minFrameSize and maxEnvelopeFrameSize descriptions.

Proposed Response Response Status **C**

ACCEPT IN PRINCIPLE.

See comments #69, #70

CI **04A** SC **4A.2.7.1** P **34** L **08** # **69**
Barrass, Hugh Cisco Systems

Comment Type **T** Comment Status **A**

maxBasicFrameSize is known and fixed. It is always 1518 octets.

SuggestedRemedy

Change:

maxBasicFrameSize = ...; {In octets, see 3.2.7, 4.4}

to:

maxBasicFrameSize = 1518; {In octets, see 3.2.7, 4.4}

Proposed Response Response Status **C**

ACCEPT.

CI **04A** SC **4A.2.7.1** P **34** L **09** # **70**
Barrass, Hugh Cisco Systems

Comment Type **T** Comment Status **A**

maxEnvelopeFrameSize is not implementation dependent. It is always 2000 octets.

SuggestedRemedy

Change:

maxEnvelopeFrameSize = ...; {In octets, implementation-dependent, see 3.2.7, 4.4}

to:

maxEnvelopeFrameSize = 2000; {In octets, see 3.2.7, 4.4}

Proposed Response Response Status **C**

ACCEPT.

CI **04A** SC **4A.2.9** P **35** L **24** # **62**
Daines, Kevin World Wide Packets

Comment Type **E** Comment Status **D**

Wrong punctuation.

SuggestedRemedy

Change ", " to "." after "size"

Proposed Response Response Status **W**

PROPOSED ACCEPT.

CI **04A** SC **4A.3.2.1.5** P **37** L **07** # **58**
Daines, Kevin World Wide Packets

Comment Type **E** Comment Status **D**

"Fig" should be spelled out.

SuggestedRemedy

Change "Fig" to "Figure"

Proposed Response Response Status **W**

PROPOSED ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI **04A** SC **4A.3.2.1.5** P **37** L **07** # **56**
Daines, Kevin World Wide Packets

Comment Type **E** Comment Status **D**
Spelling

SuggestedRemedy

Change "behaviour" to "behavior"

For some reason only Clause 30 uses "behaviour"

Proposed Response Response Status **W**
PROPOSED ACCEPT.

CI **04A** SC **4A.3.2.2.5** P **38** L **20** # **57**
Daines, Kevin World Wide Packets

Comment Type **E** Comment Status **D**
Spelling

SuggestedRemedy

Change "behaviour" to "behavior"

For some reason only Clause 30 uses "behaviour"

Proposed Response Response Status **W**
PROPOSED ACCEPT.

CI **04A** SC **4A.3.2.2.5** P **38** L **20** # **59**
Daines, Kevin World Wide Packets

Comment Type **E** Comment Status **D**
"Fig" should be spelled out.

SuggestedRemedy

Change "Fig" to "Figure"

Proposed Response Response Status **W**
PROPOSED ACCEPT.

CI **05** SC **5.2.4.1** P **42** L **21** # **71**
Barrass, Hugh Cisco Systems

Comment Type **T** Comment Status **A**
maxBasicFrameSize is known and fixed. It is always 1518 octets.

SuggestedRemedy

Change:

maxBasicFrameSize = ...; {In octets, see 3.2.7, 4.4}

to:

maxBasicFrameSize = 1518; {In octets, see 3.2.7, 4.4}

Proposed Response Response Status **C**
ACCEPT.

CI **05** SC **5.2.4.1** P **42** L **21** # **117**
Law, David 3Com

Comment Type **T** Comment Status **R**
Why is maxEnvelopeFrameSize being defined here, I don't think it is being used.

SuggestedRemedy

Proposed Response Response Status **C**
REJECT.

It does appear to be used in clause 30 (e.g., 30.3.1.1.25, 30.3.1.1.37)

CI **05** SC **5.2.4.1** P **42** L **22** # **72**
Barrass, Hugh Cisco Systems

Comment Type **T** Comment Status **A**
maxEnvelopeFrameSize is not implementation dependent. It is always 2000 octets.

SuggestedRemedy

Change:

maxEnvelopeFrameSize = ...; {In octets, implementation-dependent, see 3.2.7, 4.4}

to:

maxEnvelopeFrameSize = 2000; {In octets, see 3.2.7, 4.4}

Proposed Response Response Status **C**
ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 30	SC	P	L	# 119
Law, David		3Com		
Comment Type	T	Comment Status	A	
A condition for this counter incrementing is that the value of the length/type field is greater than 'maximum allowed LLC data size' but this isn't defined anywhere. In addition subclause 5.2.4.3 reference will have to be updated to match this change.				
SuggestedRemedy				
To avoid making existing implementations non-conformant suggest:				
[1] In subclause 30.3.1.1.24 the text 'maximum allowed LLC data size' be changed to read 'maximum allowed MAC client data size for a basic frame'.				
[2] In subclause 5.2.4.3 the text '{length field value is greater than the maximum allowed LLCDataSize}' be changed to read '{length field value is greater than the maximum allowed MAC client data size for a basic frame}'				
Proposed Response	Response Status		C	
ACCEPT.				

CI 30	SC 30.3.1.1.23	P 45	L 17	# 118
Law, David		3Com		
Comment Type	TR	Comment Status	A	
The normative text for incrementing this counter found in 5.2.4.3 states this should occur when:				
{length field value is between the minimum unpadded LLCDataSize and maximum allowed LLCDataSize inclusive, and does not match the number of LLC data octets received} or {length field value is less than the minimum allowed unpadded LLC data size and the number of LLC data octets received is greater than the minimum unpadded LLCDataSize}				
This doesn't match 30.3.1.1.23 and needs clarification as to what is 'maximum allowed LLCDataSize'				
SuggestedRemedy				
Suggest this needs to be updated to match the description now found in subclause 30.3.1.1.23 in particular with respect to the upper limit being maximum basic frame size. This will also remove three of the last four instances for LLCDataSize and I have another comment that will remove the last.				
{length/type field value is between the minimum unpadded MAC client data size and maximum allowed MAC client data size for a basic frame inclusive, and does not match the number of LLC data octets received} or {length/type field value is less than the minimum allowed unpadded MAC client data size and the number of MAC client data octets received is greater than the minimum unpadded MAC client data size}				
Proposed Response	Response Status		W	
ACCEPT.				

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 30 SC 30.3.1.1.24 P 45 L 29 # 120
Law, David 3Com

Comment Type TR Comment Status A

I'm not sure that simply changing 'Length' to 'Length/Type' here is correct. The note below this attribute says the counter will not increment for frames containing 'Type' fields and the counter will no longer increment. This certainly wont be true if the text is changed as suggested since all frames with a 'Type' field will have a Length/Type field with a value greater than the maximum allowed LLC data size.

I think the existing text was trying to say that if a frame had a length field - that is if it had a Type/Length field with the Length interpretation - and the value was greater than the maximum allowed LLC data size then the counter will increment (not sayign it did this correctly - only I think that was what was intended). The note would then be true - the counter will not increment.

SuggestedRemedy

Change the text '.. with a length/type field ..' to read '.. with a Length/Type field, with a length interpretation, ..'.

Of course another way of wording all this would be 'A count of frames with a Length/Type field value less than 1500 that is greater than 1500. Maybe it's about time we consider finally deprecating this attribute.

In respect to the Pascal in subclause 5.2.4.3 there are three occurrences where the 'length field' is checked, once associated with this attribute and twice with respect to alnRangeLengthErrors. We could consider changing these to Length/Type field without the problem I described here as the subroutines there are in are only called when the procedure is called with a ReceiveStatus of LengthError by 4.2.9 and this will not occur for the Type interpretation.

Proposed Response Response Status W

ACCEPT IN PRINCIPLE.

There is already a note that this increments for type frames.

Change first sentence:

A count of frames with a Length/Type field value that is greater than 1500.

In 5.2.4.3 change the 'length field' is to 'Length/Type field'

CI 30 SC 30.3.1.1.24 P 45 L 32 # 97
Dawe, Piers Agilent Technologies

Comment Type T Comment Status A

This NOTE is stale, and if you remove the footnote 1 below, it becomes misleading.

SuggestedRemedy

If this was when the change was made, change 'In the past' to 'Before IEEE Std 802.3x-1997'

Proposed Response Response Status C
ACCEPT.

CI 30 SC 30.3.1.1.37 P 46 L 08 # 121
Law, David 3Com

Comment Type T Comment Status R

It's not too clear what 'frame length capacity' means here. What, for example, if I read this attribute as 'envelope frame', the text implies the 'frame length capacity' of the MAC is therefore 2000 octets. I send a Qtagged frame in of 1900 octets and the aFrameTooLongErrors attribute increments - is there a problem. Well no, the implementation has chosen to base aFrameTooLongErrors on the frame receive as permitted.

SuggestedRemedy

At a minimum add a note that describes that the above is permitted.

Proposed Response Response Status C
REJECT.

The term "frame length capacity" does not appear in this section. Perhaps the commenter meant "frame length capability"?

The purpose of this attribute is to reflect the receive frame capability of the MAC. Since three frames are defined, three enumerated values are provided. One additional value 'unknown' is provided for legacy implementations that know nothing about this attribute and have nothing to map it to.

This attribute is not the place to provide what if scenarios on reception.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 30 SC 30B.2 P 50 L 23 # 98
Dawe, Piers Agilent Technologies

Comment Type T Comment Status A

The order of this list is not the same as their equivalent 30.3.1.1.37. Is this deliberate?

SuggestedRemedy

Re-order one of them if appropriate.

Proposed Response Response Status C

ACCEPT.

Propose re-ordering 30.3.1.1.37 by listing unknown first.

CI 30A SC 30A.1.2 P 49 L 03 # 122
Law, David 3Com

Comment Type E Comment Status D

Typo.

SuggestedRemedy

'.. in subclasue 31A.1.2 as ..' should read '.. in subclause 30A.1.2 as ..'.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 31 SC 31.3 P 51 L 18 # 63
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

Since we've reconciled the long-standing discrepancies between Clause 2 and Clause 4 (the service to humanity), the text in 31.3 needs to be updated to reflect the new Figure 31-2.

SuggestedRemedy

Change first three paragraphs of 31.3 to read:

"This subclause describes how the MAC Control sublayer uses the MAC service interface specified in Clause 2. The optional MAC Control sublayer is inserted between the MAC sublayer and its normal client (i.e., its client in the absence of the MAC Control sublayer). The MAC Control sublayer uses the MAC service interface to interface to the MAC client and to the MAC.

"Figure 31-2 depicts the usage of the interlayer interfaces by the MAC Control sublayer. Devices that implement the MAC Control sublayer shall support the optional MAC service primitives MA_CONTROL.request and MA_CONTROL.indication, as specified in 2.3.3 and 2.3.4."

Proposed Response Response Status C

ACCEPT.

CI 31 SC 31.5.1 P 53 L 23 # 64
Daines, Kevin World Wide Packets

Comment Type ER Comment Status A

Much of 31.5.1 is legacy and needs to be updated.

SuggestedRemedy

Specifically, the references to receiveFrame needs to be cleansed.

Also, a reference to maxValidLength needs to be updated. It should be maxBasicDataSize.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Change in the text of 31.5.1 as appropriate:

ReceiveFrame -> MA_DATA.indication

maxValidLength -> maxBasicDataSize

IEEE P802.3as/D2.1 Frame Expansion Comments

Cl 31	SC 31.5.2	P 53	L 23	# 65
Daines, Kevin				
World Wide Packets				
Comment Type ER Comment Status R				
References to ReceiveFrame function should be purged.				
SuggestedRemedy				
See comment				
Proposed Response Response Status C				
REJECT.				
This comment was WITHDRAWN by the commenter.				

Cl 31	SC 31.5.2	P 53	L 31	# 99
Dawe, Piers				
Agilent Technologies				
Comment Type T Comment Status A				
A small service to humanity, and because EFM uses MAC Control				
SuggestedRemedy				
Please change 'See annexes.' to 'See Annex 31A and Annex 31B and Clause 64.'				
Proposed Response Response Status C				
ACCEPT.				

Cl 31	SC 31.5.3.3	P 53	L 49	# 110
Muller, Shimon				
Comment Type ER Comment Status A				
The renumbering of the subclauses starting with the original 31.5.3.4 and beyond has been done without editor's strike-throughs and underscores.				
SuggestedRemedy				
Either leave the original numbering and let the IEEE editor take care of this, or do it as any other change that you do to the original document. If you choose the latter, you need to do this to all the subclause titles in 31.5.3.				
Proposed Response Response Status W				
ACCEPT IN PRINCIPLE.				
Accept the second suggested remedy.				

Cl 31	SC 31.5.3.3	P 53	L 50	# 111
Muller, Shimon				
Comment Type TR Comment Status R				
The agreed upon remedy to my comment has not been completely implemented.				
SuggestedRemedy				
- Delete the definition of MA_CONTROL.indication. It is no longer used in the state diagram.				
Proposed Response Response Status W				
REJECT.				
MA_CONTROL.indication was in 802.3-2002, it is not in 802.3-2005.				
No additional change is required.				

Cl 31	SC 31.5.3.4	P 55	L 02	# 100
Dawe, Piers				
Agilent Technologies				
Comment Type ER Comment Status A				
You have enough space to implement this diagram (figure 31-4) in 8 point rather than 7 point.				
SuggestedRemedy				
Please change the material in 7 point to 8 point. Also figure 31B.1				
Proposed Response Response Status C				
ACCEPT.				

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 31 SC 31.5.3.4 P 55 L 18 # 124
Law, David 3Com

Comment Type TR Comment Status A

For some reason as part of re-drawing Figure 31-4 the state names of all the states were changed. Not only has this made the naming of the states inconsistent with the associated state machine figures in Annex 31B it has also broken the cross-references to some of these states in other subclauses - and it is this that is the basis of my TR.

I did not do a full check on all states, and have only searched Section 2, but references to INITIATE MAC CONTROL FUNCTION that are now broken by this renaming to INITIATE_MAC_CONTROL_FUNCTION are:

Subclause 31.5.3.5 '.. in the INITIATE MAC CONTROL FUNCTION state ..'
Subclause 31B.3.3 '.. called by the INITIATE MAC CONTROL FUNCTION state ..'
Title of 31B.3.4.4 '.. diagram (INITIATE MAC CONTROL FUNCTION) ..'
Subclause 31B.3.4.4 '.. depicts the INITIATE MAC CONTROL FUNCTION for ..'

SuggestedRemedy

For state names that have simply had an underscore added between the words remove these to restore then the existing names so references to these states are not broken.

Suggest that the two new states, WAIT_FOR_RX and CHECK-TYPE are renamed to be consistent with the rest of this clause.

Proposed Response Response Status W
ACCEPT.

CI 31 SC 31.5.3.4 P 55 L 20 # 101
Dawe, Piers Agilent Technologies

Comment Type T Comment Status A

'per annex': which annex?

SuggestedRemedy

Change to 'per Annex 31A, and Annex 31B or Clause 64' (or delete it)

Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

Change to 'per Annex 31B'

CI 31B SC 31B.3.1 P 56 L 42 # 102
Dawe, Piers Agilent Technologies

Comment Type TR Comment Status A

The modifications to item d of the first list and item e of the second mean that we now don't have a FCS - yet a MAC Control frame is supposed to be a properly formed Ethernet frame.

SuggestedRemedy

Correct item d of the first list and/or item e of the second.

Proposed Response Response Status C
ACCEPT IN PRINCIPLE.

The MA_CONTROL.request service primitive need not have an fcs parameter as the MAC appends a valid fcs on transmit.

In the second bulleted list restore d:

d) The frame_check_sequence is set equal to the frame_check_sequence parameter of the MAC:MA_DATA.request primitive.

Renumber list or make second list another subclause

CI 31B SC 31B.3.2.6 P 60 L 01 # 112
Muller, Shimon

Comment Type TR Comment Status A

The restoration of state HALT TX has not been implemented entirely correctly.

SuggestedRemedy

The entry condition to state INITIALIZE TX should be BEGIN only, delete "+ transmitEnabled=FALSE".

Proposed Response Response Status W
ACCEPT.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 31B SC 31B.3.2.6 P 60 L 02 # 103
Dawe, Piers Agilent Technologies

Comment Type T Comment Status A

If transmitEnabled=FALSE, do I jump to INITIALIZE TX or to HALT TX? It seems ambiguous, which is not healthy.

SuggestedRemedy

Please explain, or change the state diagram. Unless management is supposed to truncate a part-transmitted packet, the UCTs at the bottom might need changing.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

See comment #112, which fixes the problem.

CI 31B SC 31B.3.2.6 P 60 L 38 # 104
Dawe, Piers Agilent Technologies

Comment Type T Comment Status A

Items in the SEND CONTROL FRAME box are separated by a mix of commas and pipes. Per D2.0#94:

SuggestedRemedy

Replace the pipes with commas.

Proposed Response Response Status C

ACCEPT IN PRINCIPLE.

Create a new alias 'MADR_MCD' in 31B.3.2.6 defined as:

An alias for MAC control MAC client data field that is the concatenation of 802.3_MAC_Control, pause_command, n_quanta_tx, zeros.

Also create an alias 'MADI_MCD' 31.5.3.4 defined as:

An alias for MAC control MAC client data field that is the concatenation of lengthOrType, data.

CI 57 SC 57.5.2.1 P 65 L 42 # 105
Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

Thank you for making this paragraph much more comprehensible. But I still have to read it twice before I understand it; if the first sentence were placed last it would be more accessible to the reader.

SuggestedRemedy

Change to: The minimum value of this field is minFrameSize / 8. The maximum value of this field is equal to maxBasicFrameSize, which is defined in 4.4.2. Prior to exchanging and agreeing upon a Maximum OAMPDU Size, a DTE sends OAMPDUs of length minFrameSize / 8.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

CI 57 SC 57.7.3.3 P 66 L 07 # 66
Barrass, Hugh Cisco Systems

Comment Type E Comment Status D

The use of "can" or "cannot" is discouraged.

SuggestedRemedy

Reword the PICS entry to match the style of 43B.6.2.3

i.e. change:

"OAMPDUs cannot be Q-tagged or envelope frames"

to:

"Basic (not Q-tagged or envelope) frame format"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See comment #123, which supercedes this comment.

IEEE P802.3as/D2.1 Frame Expansion Comments

CI 64	SC 64.1.3	P 70	L 28	# 73
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Barrass, Hugh Cisco Systems

Comment Type T Comment Status A

Figure 64-3

The diagram shows "TransmitFrame(DA, SA, Length/Type, data)" - this has been replaced by "MA_DATA.request()"

SuggestedRemedy

Change:

"TransmitFrame(DA, SA, Length/Type, data)"

to:

"MA_DATA.request()"

Proposed Response Response Status C

ACCEPT.

CI 99	SC 99	P 07	L 07	# 106
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Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

The document uses the multiplication symbol (looks like an x), so it should be included in the list of symbols. One reason is so that in future, editors can find and use it more readily. Also, 30A.1.1 uses the pipe symbol.

SuggestedRemedy

Please insert the multiplication symbol to the list of symbols and operators. I suggest you describe it as 'Multiplication'. It comes from a symbol font. And make an entry with the pipe.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 99	SC 99	P 07	L 32	# 108
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Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

To help future editors, it would be worth using the 'meaning' column to show which dash or hyphen should be used for subtraction. I think it's the en dash. Also some stray capitals.

SuggestedRemedy

Change 'Meaning' for en dash to 'Little dash (en dash), subtraction' or 'Little dash (en dash), arithmetic subtraction'. Change 'Em' to 'em'. At line 7, change Arithmetic to arithmetic.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 99	SC 99	P 07	L 43	# 107
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Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

What happened to the square root symbol? Is this a font problem?

SuggestedRemedy

Get fixed.

Proposed Response Response Status W

PROPOSED ACCEPT.

CI 99	SC 99	P 09	L 43	# 109
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Dawe, Piers Agilent Technologies

Comment Type E Comment Status D

In this draft, strikethrough and underline are used to show differences to the base document, and colour is used to show the same thing. Fair enough in this draft, where the changes over D2.0 are substantial.

SuggestedRemedy

When we get to a more stable draft, use colour in the usual way, to show differences to the previous draft.

Proposed Response Response Status W

PROPOSED ACCEPT.