

IEEE P802.3as D2.2 Frame format extensions Comments

Cl 01 SC 1.4.343 P 10 L 31 # 8
 Dawe, Piers Avago Technologies

Comment Type T Comment Status D

This definition is not consistent with the way 802.3as is describing things. The draft has removed the details of the Q tag frame format of 802.1Q, so the only length/type field in 802.3 is (now) ALWAYS immediately following the source address - there's no possibility of inserting anything else there. Also, the 802.3 MAC can (no longer) tell if the client data following the Q tag contains a further tag.

SuggestedRemedy

Change to: 'Q-tagged frame: A frame that contains an IEEE 802.1Q tag starting in the Length/Type field, and that has a maximum length of 1522 octets.'

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

For consistency with basic & envelope definitions:

Change to: 'Q-tagged frame: A MAC frame that carries a Length/Type field with an IEEE 802.1Q tag and that has a maximum length of 1522 octets.'

Cl 01 SC 1.4.xxx P 10 L 37 # 9
 Dawe, Piers Avago Technologies

Comment Type TR Comment Status D

This definition of 'basic frame' does not exclude a short-enough Q-tagged frame, for example, because 802.3 doesn't discriminate between types. Therefore we can't use it to enforce a not-tagged, not-encapsulated frame for MAC Control, OAMPDUs and so on.

SuggestedRemedy

Unless we change basic frame to be one with a Length/Type field with the Length interpretation, I think we have to go back and fix 43.4.2.2, 43.5.3.2, 43B, 57.4.2, 64.3.6 and their PICS another way.

Proposed Response Response Status W

PROPOSED REJECT.

It is not clear why this exclusion must be enforced, especially since we cannot enforce if a frame is basic, Qtagged or envelope. And changing to length won't work, since for example OAMPDUs are type interpretation.

It is difficult to exclude without looking into the MAC client data, and this is described in 3.2.7

Cl 02 SC 2.1 P 11 L 32 # 10
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

It would help the reader to have a complete list of possible intermediate layers (it's not very long). Sentence would read better if the example(s) were nearer the mention of other clauses rather than at the other end. A specific clause gets a capital C.

SuggestedRemedy

Change to 'Other clauses in this standard, e.g. Clause 31, Clause 43, Clause 57, Clause 64, may add optional protocol sublayers above the MAC.'

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

This was removed to simplify things, but we can add it back:

Change to 'Other clauses in this standard (e.g. Clause 31, Clause 43, Clause 57, Clause 64) may add optional protocol sublayers above the MAC.'

Cl 02 SC 2.1 P 12 L 48 # 11
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Figure title needs revision in step with figure.

SuggestedRemedy

Delete '(optional MAC Control sublayer implemented)'

Proposed Response Response Status W

PROPOSED ACCEPT.

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Cl 03 SC 3.1 P 15 L 37 # 12
 Dawe, Piers Avago Technologies

Comment Type ER Comment Status D

There isn't enough information for the reader to know what, if anything, he is meant to do about this normative sentence: 'During Ethernet's history, capabilities have been added to allow Layer 2 protocol encapsulations within the MAC client data field.'. There's no definition of layer 2 in 802.3, and nothing to indicate what the sentence is talking about or why the reader needs to be concerned.

SuggestedRemedy

- Options:
 1. Turn it into a NOTE.
 2. Turn it into a NOTE and add more information.
 3. Delete the sentence.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Leave as noramative but add:

As a result, there is now more than one type of MAC frame.

Cl 03 SC 3.1.1 P 15 L 51 # 13
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

You should re-insert an 'and' into the truncated list.

SuggestedRemedy

... padding if required, and the frame check ...

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 03 SC 3.1.2 P 17 L 4 # 14
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Two dashed lines looks like two mappings

SuggestedRemedy

... mappings for pad and FCS are shown with dashed lines.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 03 SC 3.2.7 P 20 L 7 # 19
 Dawe, Piers Avago Technologies

Comment Type T Comment Status D

WRT 'basic frames that carry a Length/Type field with either the Length or Type interpretation with no additional tags (i.e., untagged) or encapsulations': I don't think the MAC can tell whether there are additional tags or encapsulations. As far as I understand it, any frame that's short enough might, or probably will, be treated as a basic frame by the MAC.

SuggestedRemedy

Strictly, I don't think this is a problem in 3.2.7 but it's confusing.

Proposed Response Response Status W
 PROPOSED REJECT.

The MAC cannot tell what is in the client data, but the basic frame is still defined as not having any 'tags' in the client data. It is unenforceable, but we must state the intent.

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Cl 03 SC 3.2.7 P 20 L 9 # 17
 Dawe, Piers Avago Technologies

Comment Type T Comment Status D

I assume that we do not intend to allow MACs that can handle Q-tagged frames but not basic frames, nor ones that can handle some envelope frames but not Q-tagged frames. The current text does not make this clear.

SuggestedRemedy

Either: change bullets b and c, and add a NOTE 2:
 b) 1504 decimal - basic frames, and Q-tagged frames that contain an IEEE 802.1Q tag
 c) 1982 decimal - basic frames, and envelope frames that contain encapsulation(s) and carry a Length/Type field with the Type interpretation
 NOTE 2 (or include in existing NOTE) - All Q-tagged frames are envelope frames, but not all envelope frames are Q-tagged frames.
 Or, if this proposed NOTE is not the case, change bullets b and c to:
 b) 1504 decimal - basic frames, and Q-tagged frames that contain an IEEE 802.1Q tag
 c) 1982 decimal - basic and Q-tagged frames, and envelope frames, which contain encapsulation(s) and carry a Length/Type field with the Type interpretation

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Change to:

b) 1504 decimal - basic frames, and Q-tagged frames that contain an IEEE 802.1Q tag
 c) 1982 decimal - basic frames, and envelope frames that contain encapsulation(s) and carry a Length/Type field with the Type interpretation

NOTE 2 - Q-tagged frames are grandfathered. As a result, all Q-tagged frames are envelope frames, but not all envelope frames are Q-tagged frames.

Cl 03 SC 3.2.7 P 20 L 9 # 20
 Dawe, Piers Avago Technologies

Comment Type T Comment Status D

WRT 'Q-tagged frames that contain an IEEE 802.1Q tag': this implies that there are other kinds of Q-tagged frames - ones that don't contain an IEEE 802.1Q tag.

SuggestedRemedy

Options:
 1. Change 'frames that contain' to 'frames, which contain'.
 2. Change 'frames that contain' to 'frames, which contain', add 'See 1.4.343.'
 3. Delete 'that contain an IEEE 802.1Q tag', add 'See 1.4.343.'

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

In Q-tagged:
 Change 'frames that contain' to 'frames, which contain', add 'See 1.4.343.'

In basic, add 'See 1.4.xxx'

In envelope, add 'See 1.4.xxx'

Cl 03 SC 3.2.7 P 20 L 10 # 18
 Dawe, Piers Avago Technologies

Comment Type T Comment Status D

WRT 'envelope frames that contain encapsulation(s) and carry a Length/Type field with the Type interpretation': this implies that there are other kinds of envelope frames - ones that don't contain encapsulation(s) and/or don't carry a Length/Type field with the Type interpretation. But per 1.4.xxx, all envelope frames carry a Length/Type field with the Type interpretation, and may contain encapsulation. And the MAC is not supposed to need to know if a frame contains encapsulation(s).

SuggestedRemedy

Options:
 1. Change 'frames that contain' to 'frames, which contain'.
 2. Change 'frames that contain encapsulation(s) and carry' to 'frames, which carry'
 3. Delete 'that contain encapsulation(s) and carry a Length/Type field with the Type interpretation', change NOTE to 'The envelope frame is defined in 1.4.xxx. It is intended...'

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Change 'frames that contain' to 'frames, which contain'.

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Cl 03 SC 3.2.7 P 20 L 22 # 15
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D
 minFrameSize hasn't been introduced yet (it was mentioned above in the base document but that sentence now follows).

SuggestedRemedy
 Change to '... discussion of the minimum frame size, minFrameSize.'

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 03 SC 3.2.8 P 20 L 37 # 16
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D
 Please stop the word processor putting hyphens in variable names.

SuggestedRemedy
 Suggest using tabs or new-line before 'max' to get the whole expression on one line anyway.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Will use a new line here.

The editor will try to force no hyphens for variables...

Cl 03 SC 3.2.8 P20 L37 # 53
 George Cravens Reti Corp

Comment Type E Comment Status D
 Equation for pad field length was split across two lines, and the hyphen could be mistaken for a minus sign.

SuggestedRemedy
 Prevent the equation from being split across two lines.

Proposed Response Response Status W
 PROPOSED ACCEPT.

See comment 16

Cl 04 SC 4.2.3.3 P24 L1 # 57
 Glenn Parsons Nortel

Comment Type E Comment Status D
 To be consistent in the 'MAC frame' terminology we should modify 4.2.3.3 to reinforce that this is the case.

The confusion arises since in 802.3ac-1998 Q tags were allowed in minimum size frames. In 802.3as anything is allowed in minimum size frames. So if a bridge strips a tag on a 64 octet frame, it must pad it back to 64 before resending.

Per 4.3.3.3 of 802.3-2005 - minFrameSize = 64 octets
 Per 3.2.6 this is irrespective of Type or Length value
 If it is less. The MAC _must_ pad to 64.

Not sure if we can/should say this, but we should at least change terms.

SuggestedRemedy
 Old:

4.2.3.3
 The CSMA/CD Media Access mechanism requires that a minimum frame length of minFrameSize bits be transmitted.

New:
 4.2.3.3
 The CSMA/CD Media Access mechanism requires that a minimum MAC frame length of minFrameSize bits be transmitted.

Proposed Response Response Status W
 PROPOSED ACCEPT.

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Cl 04 SC 4.2.7.1 P 25 L 14 # 22
 Dawe, Piers Avago Technologies

Comment Type TR Comment Status D

The sentence at 4.2.9 p29 line 21:
 'MAC implementations use maxPermittedFrameSize for the maximum permitted MAC frame size.'
 contradicts 4.2.4.2.1:
 'The receiving CSMA/CD sublayer is not required to enforce the MAC frame size limit, but it is allowed to truncate MAC frames longer than maxPermittedFrameSize octets (see 4.4.2).'

and
 3.2.7 '... up to a maximum number specified by the implementation of the standard that is used. ... The maximum size of the MAC client data field is determined by the particular implementation.'

These changes could cause problems for well-behaved existing MACs, and this is why I was not satisfied with the response to my TR, no. 81 against D2.1.

SuggestedRemedy

One could keep maxPermittedFrameSize as defining a MAC's membership in one of three frame-size classes, but then we would need another Pascal variable for the actual frame size limit the MAC uses. Or, let maxPermittedFrameSize be that actual frame size limit.
 Change:
 'maxPermittedFrameSize = maxBasicFrameSize or (maxBasicFrameSize + qTagPrefixSize) or maxEnvelopeFrameSize ; {in octets}' to:
 'maxBasicFrameSize = ..; {in octets: at least maxBasicFrameSize and no more than maxEnvelopeFrameSize}'
 and change the sentence in 4.2.4.2.1 to:
 'The receiving CSMA/CD sublayer is not required to enforce the MAC frame size limit, but it is allowed to truncate over-long MAC frames (see 3.2.7 and 4.4.2).'

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Change:
 'maxPermittedFrameSize = maxBasicFrameSize or (maxBasicFrameSize + qTagPrefixSize) or maxEnvelopeFrameSize ; {in octets}' to:
 'maxPermittedFrameSize = ..; {in octets: at least maxBasicFrameSize and no more than maxEnvelopeFrameSize}'
 and change the sentence in 4.2.4.2.1 to:
 'The receiving CSMA/CD sublayer is not required to enforce the MAC frame size limit, but it is allowed to truncate over-long MAC frames (see 3.2.7 and 4.4.2).'

Cl 04 SC 4.2.7.5 P 28 L 3 # 21
 Dawe, Piers Avago Technologies

Comment Type TR Comment Status D

You have removed the Initialize procedure, yet it is still referred to in the Pascal on pages 26, 27. More generally, I would like to be reassured that deleting all of 4.2.7.4, 4.2.7.5 and 4.3.2 is OK.

SuggestedRemedy

Reconcile. A few sentences in an editor's box, saying where the function of the deleted subclauses has gone, would help get through sponsor ballot.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Add an editor's note indicating this has been replaced by 4.3.2

Cl 04 SC 4.2.9 P 29 L 17 # 23
 Dawe, Piers Avago Technologies

Comment Type TR Comment Status D

Deleting the over-size frame checking option 'either as a constant or as a function of whether the frame being received is a basic or tagged frame (see 3.2,3.5)' on line 17 seems unnecessary. If some implementations actually do this, it seems fine. And if I wanted to police a network very strictly, I would want to reject anything I hadn't contracted to transport, as early as I could detect it. (If you disagree and think this way of checking is not desirable, deprecate it for a while.)

SuggestedRemedy

Reinstate, but modified to fit the draft: 'either as a constant or as a function of the received length/type field (see 3.2.6).'

Proposed Response Response Status W
 PROPOSED REJECT.

The problem is there is no way to identify a frame as basic, Q-tagged or envelope. That is why this was removed.

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Cl 04 SC 4.3.2.1 P 32 L 20 # 24
 Dawe, Piers Avago Technologies
 Comment Type T Comment Status D
 What happened to TransmitStatus (was in 4.3.2)?
 SuggestedRemedy
 ?
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 It is in Fig 4-1.
 Perhaps it should be added to 4.3.2.2.1 as well.

Cl 04 SC 4.3.2.1.2 P 32 L 25 # 26
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Wrong references. There is no 4.3.2.3.
 SuggestedRemedy
 Change 4.2.9 to 4.2.8, here. Change 4.3.2.3 to ? (4 times)
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change 4.2.9 to 4.2.8, here.
 Delete 4.3.2.3 (4 times)

Cl 04 SC 4.3.2.1.3 P 32 L 28 # 25
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Wrong primitive
 SuggestedRemedy
 MA_DATA.request
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 04A SC 4A P 37 L 1 # 28
 Dawe, Piers Avago Technologies
 Comment Type TR Comment Status D
 Note comments against Clause 4.
 SuggestedRemedy
 See comments against Clause 4.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Apply accepted comments against clause 4 to Annex 4A

Cl 04A SC 4A.2.9 P 40 L 37 # 54
 George Cravens Reti Corp
 Comment Type T Comment Status D
 The definition of exceedsMaxLength in Clause 4 (pg.29 L12) says "MAC implementations use maxPermittedFrameSize" while this one says "... MAY use EITHER ...". Meanwhile, the NOTE on pg. 52 (30.3.1.1.25, line 50) says "Implementations shall use maxPermittedFrameSize". Seems like a conflict. There is another comment for this NOTE.
 SuggestedRemedy
 Delete the words "may" and "either". Should "Shall" be included?
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Delete the words "may" and "either".

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Cl 04A SC 4A.3.2.1.4 P 44 L 1 # 27
 Dawe, Piers Avago Technologies

Comment Type ER Comment Status D

Figure 4A-1 is still in 7 point. Note D2.1 comment 77. I know this feels like clerical work, and not always relevant to this project, but maintaining such a huge document as 802.3 needs multiple participants, and anything to do with state diagrams needs expert handling. Thank you!

SuggestedRemedy

Please change any 7 point in Figures 4A-1 and 4A-2 to 8 point (I have no objection to anything in 9 or 10 point: we use that for tables and text so it can't be bad...). Also the 3-line key 'Instances of MAC data service interface' in figures 64-3, 64-6, 64-7, 64-8, 64-10, 64-11.

And if you can, figures 64-10, 64-11, 64-15, 64-17, figures 64-20, 21 & 22, 64-25, 64-27, two things in 64-12 ('UCT', ']'). Maybe insert an editorial box asking the staff editor to do these last 10 figures?

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 04A SC 4A.4.2 P 45 L 36 # 29
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Font size

SuggestedRemedy

All rows should be in 9 point

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 05 SC 5.2.4.3 P 48 L 46 # 1
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Getting rid of unwanted mention of LLC. Even if the MAC knew or cared what its client was, it cannot make assumptions about a bad incoming packet. And even a legitimate packet might not have been destined for the MAC client (might be for e.g. MAC Control).

SuggestedRemedy

Delete 'LLC', do not replace with 'MAC client'. In 30.3.1.1.23, change 'number of MAC client data octets received' to 'number of data octets received' (twice).

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 30 SC 30.3.1.1.23 P 52 L 12 # 30
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

While 30.3.1.1.25 says 'A count of MAC frames received that...' this and 30.3.1.1.24 just say 'A count of MAC frames with...'. It's not clear whether this is to count length errors from the line, from the MAC client, or both.

SuggestedRemedy

Assuming the former, insert 'received' into 30.3.1.1.23 and 30.3.1.1.24.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 30 SC 30.3.1.1.25 P 52 L 50 # 31
 Dawe, Piers Avago Technologies

Comment Type TR Comment Status D

Similarly to my comment against 4.2.9, removing the option of strict error counting seems outside of the project. Assuming we want MACs to count exactly the same frames as they reject: if this note is consistent with clauses 4 and 5 it's not necessary, and if it isn't, it's wrong.

SuggestedRemedy

Delete the note altogether.

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 30 SC 30.3.1.1.25 P52 L50 # 55
 George Cravens Reti Corp

Comment Type T Comment Status D

Is the NOTE normative? It uses the word "Shall", and conflicts with Clause 4 (exceedsMaxFrameSize, pg. 29, Line 12), and Annex 4a (exceedsMaxFrameSize, pg. 40, line 37) which both say "Implementations use maxPermittedFrameSize".

SuggestedRemedy

Delete the "Shall" from this note, and insert it into the exceedsMaxFrameSize definitions in Clause 4 and annex4a if it is appropriate.

Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.

Note deleted per comment 31

insert "Shall" into the exceedsMaxFrameSize definitions in Clause 4 and annex4a

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Cl 30 SC 30.3.1.1.37 P 53 L 12 # 33
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Names in list aren't the same as the equivalent in 30B.2.
 SuggestedRemedy
 Find out if they should be! If so, change one list or the other.
 Proposed Response Response Status W
 PROPOSED REJECT.
 They don't need to match, it is an enumerated list

Cl 30 SC 30.4.3.1.8 P 53 L 35 # 32
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Obsolete sentence 'A repeater may use either value in a constant manner, in which case the largest value is recommended.'
 SuggestedRemedy
 Delete it
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 See comment 56

Cl 30 SC 30.4.3.1.8 P53 L35 # 56
 George Cravens Reti Corp
 Comment Type E Comment Status D
 While multiple values are allowed for maxPermittedFrameSize, the sentence could be confusing as written since there is only one parameter listed (A repeater may use either value in a consistent manner...)
 SuggestedRemedy
 modify the line to read" "A repeater may use either of the values for maxPermittedFrameSize in a consistent manner, with the largest value recommended."
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 31 SC 31.3 P 58 L 21 # 34
 Dawe, Piers Avago Technologies
 Comment Type T Comment Status D
 This sentence mentions three entities connected to the MAC Control sublayer: the MAC client, the MAC Control client and the MAC. Figure 31-2 shows no 'MAC client' while mostly the text in 802.3 mentions the MAC client and no MAC Control client.
 SuggestedRemedy
 If there can be three entities, split the upper interface in figure 31-2 into left and right, label left client 'MAC client'. If the two clients can (or usually are) the same thing, add a sentence saying so. If there are never three entities, can we change all 'MAC Control client's into 'MAC client's'?
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 split the upper interface in figure 31-2 into left and right, label left client 'MAC client' -- similar to Fig 57-2

Cl 31 SC 31.3 P 58 L 33 # 35
 Dawe, Piers Avago Technologies
 Comment Type T Comment Status D
 With the move of the MAC control primitives to Clause 31, this sentence has become a nonsense: 'Devices that implement the MAC Control sublayer shall support the optional MAC service primitives...'. They aren't optional if they shall be supported! (But it could be that the original sentence was wrong, and there are legitimate uses of MAC control that don't need to interface to a 'higher' layer entity, but just 'sideways' to management.)
 SuggestedRemedy
 Delete 'that implement the MAC Control sublayer' here, delete 'if the optional MAC Control sublayer is implemented in a device' in 31.3.1 and 31.3.2.
 Either: Delete 'optional', here and in PICS 31.8.3.1. Or, change 'shall' to 'may', change the PICS to from 'M' to 'O', change 'mandatory' to 'optional' in 31.3.1 and 31.3.2.31.
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Delete 'that implement the MAC Control sublayer' here, delete 'if the optional MAC Control sublayer is implemented in a device' in 31.3.1 and 31.3.2.
 Delete 'optional', here and in PICS 31.8.3.1.

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Cl 31 SC 31.3.1 P 60 L 22 # 37
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Very similar sentences in 31.3.1 'This primitive defines the transfer of control requests from the MAC client to the MAC Control sublayer.' and 31.3.1.1 'This primitive defines the transfer of control commands from a MAC client entity to the local MAC Control sublayer entity.': duplication? A request is not a command. Receive side 31.3.2, 31.3.2.1 does not match.

SuggestedRemedy

Tidy up

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Delete first sentence of 31.3.1

Align 31.3.2 & 31.3.2.1 to this style.

Cl 31 SC 31.3.1 P 60 L 23 # 36
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Do we usually say that a primitive is mandatory within its description? The sentence at the end of page 58 seems enough. If you keep it, more PICS items may be needed.

SuggestedRemedy

Delete the sentence, and similarly 31.3.2.1 p61 line 11 (or if kept, move the latter to 31.3.2).

Proposed Response Response Status W

PROPOSED REJECT.

Leave as is, with changes per comment 37

Cl 31 SC 31.3.1.2 P 60 L 45 # 38
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

'The valid opcodes and their respective meanings are defined in Clause 31.' - not. And we are in Clause 31 now, anyway.

SuggestedRemedy

Change to 'The valid opcodes and their respective meanings are defined in Annex 31A, Annex 31B and Clause 64.' In 31.3.1.4, change to '(See Annex 31A.) In 31.3.2.2 and 31.5.3.4, change 'the annexes to Clause 31' to 'Annex 31A, Annex 31B and Clause 64'.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 31 SC 31.3.2.4 P 61 L 31 # 39
 Dawe, Piers Avago Technologies

Comment Type ER Comment Status D

This is one of my pet hates: 'The effect of receipt of this primitive by the MAC client is unspecified.' If the primitive is in use, anywhere in the world, then the sentence is a lie.

SuggestedRemedy

Change to 'The effect of receipt of this primitive by the MAC client is not specified in this standard. See IEEE Std 802.1?, IETF ??' (or whatever) If we can't provide any references, delete the primitive.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change to 'The effect of receipt of this primitive by the MAC client is not specified in this clause. See list of MAC control functions in Annex 31B.'

Cl 31 SC 31.5.1 P 61 L 50 # 40
 Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Do not know what 'MAC Data' means. Unnecessary capitals ('Data frame' appears just 3 times in 31, and 'data frame' once).

SuggestedRemedy

Move the 'MAC' to go with the first 'frame' in the sentence: 'Upon receipt, the MAC Control sublayer parses the incoming MAC frame to determine whether it is destined for the MAC client (data frame)...' On next page, change 'Data frame' to 'data frame' twice

Proposed Response Response Status W

PROPOSED ACCEPT.

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Cl 31 SC 31.5.3.4 P 64 L 11 # 41
 Dawe, Piers Avago Technologies

Comment Type E *Comment Status* D
 Do not know what 'MAC control MAC client data field' means. This thing has another name already.

SuggestedRemedy
 Change to 'An alias for mac_service_data_unit, the concatenation of lengthOrType, data.'?
 Or better, replace and eliminate 'MADI_MCD' in figure 31-4.

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

Replace MADI_MCD with mac_service_data_unit

Variables:
 mac_service_data_unit
 The concatenation of lengthOrType, data.

Cl 31B SC 31B.3.1 P 66 L 36 # 42
 Dawe, Piers Avago Technologies

Comment Type T *Comment Status* D
 If 'The length/type field ... is set to the reserved IEEE 802.3 MAC Control type' then it isn't reserved, it's in use. As well as the suggested remedy below, it would be nice to change 'reserved_multicast_address' in 31B to something like 'pause_address' - but it's not essential for this project.

SuggestedRemedy
 Change to 'is set to the IEEE 802.3 MAC Control type value assigned in 31.4.1.3.'

Proposed Response *Response Status* W
 PROPOSED ACCEPT.

Cl 31B SC 31B.3.2.4 P 68 L 3 # 43
 Dawe, Piers Avago Technologies

Comment Type TR *Comment Status* D
 Here we have 'The timer governing the inhibition of transmission of MAC frames from a MAC Client by the PAUSE function.', whereas 31B.1 says 'The PAUSE operation cannot be used to inhibit transmission of MAC Control frames.' A MAC frame might be a MAC Control frame, so we have a contradiction: are MAC Control frames paused or not?

SuggestedRemedy
 Reconcile.

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

Change
 MAC frames to
 data frames (see 31.5.1)

Cl 31B SC 31B.3.2.5 P 68 L 12 # 45
 Dawe, Piers Avago Technologies

Comment Type E *Comment Status* D
 Stray words not in original

SuggestedRemedy
 Delete 'Transmit state diagram for PAUSE operation' here.

Proposed Response *Response Status* W
 PROPOSED ACCEPT.

Cl 31B SC 31B.3.2.5 P 68 L 14 # 44
 Dawe, Piers Avago Technologies

Comment Type E *Comment Status* D
 case

SuggestedRemedy
 sublayer

Proposed Response *Response Status* W
 PROPOSED ACCEPT.

IEEE P802.3as D2.2 Frame format extensions Comments

Cl 31B SC 31B.3.2.6 P 69 L 3 # 46
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Stray capitals, reference gone wrong
 SuggestedRemedy
 'Figure 31B-1 depicts the Transmit state diagram...'
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 31B SC 31B.3.2.6 P 69 L 6 # 47
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Noticing that per 31B.3.1 Transmit operation, MADR_MCD seems to be just the same as mac_service_data_unit:
 SuggestedRemedy
 Can we use this in place of MADR_MCD in figure 31B-1? May have to add to 31B.3.2.2
 Variables:
 mac_service_data_unit
 The concatenation of 802.3_MAC_Control, pause_command, n_quanta_tx, zeros.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 31B SC 31B.3.2.6 P 70 L 9 # 48
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Arrow from PAUSED to SEND CONTROL FRAME goes very close to pause_timerDone = true * MA_CONTROL.request... - misleading. Arrow from HALT TX to PAUSED goes further up the page than needed. Arrow from TRANSMIT READY to PAUSED not horizontal.
 SuggestedRemedy
 Move first line to left, second down, use snap grid and tweak third.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 43 SC 43.7.15 P 71 L 20 # 2
 Dawe, Piers Avago Technologies
 Comment Type TR Comment Status D
 Stray capital, font size
 SuggestedRemedy
 'LACPDU frame format'. 'Shall be basic frame' in 9 point. Similarly in 43.7.23 (twice).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 43B SC 43B.2 P 73 L 40 # 49
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Consistency with 43 and 43B.6.2.3
 SuggestedRemedy
 PDUs generated by these protocols shall *be* basic frames* (see Clause 3).
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 43B SC 43B.6.2.3 P 74 L 14 # 50
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Obsolete capital
 SuggestedRemedy
 basic
 Proposed Response Response Status W
 PROPOSED ACCEPT.

IEEE P802.3as D2.2 Frame format extensions Comments

Cl 57 SC 57.5.2.1 P 75 L 37 # 51
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Editorials: at line 37, 'PDU', at lines 37, 44-45, 47-48, stray capitals.
 SuggestedRemedy
 Change all four occurrences to 'maximum OAMPDU size'.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 64 SC 64.1.3 P 80 L 4 # 5
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Stray capitals
 SuggestedRemedy
 MAC Control service interface, and at bottom of figure, MAC service interface. Also titles of figs 64-6, 7, 8, 15, 16 17, 23, 26, and 'state diagram' in figs 64-18, 25, 27.
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 64 SC 64.1.3 P 80 L 40 # 3
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 In figure 64-3, arrow for MAC:MA_DATA.indication() points the wrong way.
 SuggestedRemedy
 Reverse it, to point upwards
 Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 64 SC 64.1.3 P 80 L 46 # 4
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Putting the same key about MAC and MCF interface instances in multiple diagrams is not very satisfactory (and the font is too small).

SuggestedRemedy
 Move 64.1.4 Service interfaces to precede the current 64.1.3 Functional block diagram. Insert two new sentences into what was 64.1.4:
 The MAC Client communicates with the Control Multiplexer (see Figure 64-3) using the standard service interface specified in 2.3. Data primitives at this interface are prefixed with MCF:. Multipoint MAC Control communicates with the underlying MAC sublayer using the standard service interface specified in 4A.3.2. Primitives at this interface are prefixed with MAC:. Similarly, Multipoint MAC Control communicates internally using primitives and interfaces consistent with definitions in Clause 31.
 Then you might do without the following in the figures you have added it to:
 Instances of MAC data service interface:
 MCF=interface to MAC Control client
 MAC=interface to subordinate sublayer

Proposed Response Response Status W
 PROPOSED ACCEPT.

Cl 64 SC 64.2.1 P 81 L 53 # 6
 Dawe, Piers Avago Technologies
 Comment Type E Comment Status D
 Bullet d: it really is data frames, not all MAC frames
 SuggestedRemedy
 Change 'MAC' back to 'Data' (or 'Other' if you prefer).
 Proposed Response Response Status W
 PROPOSED ACCEPT IN PRINCIPLE.
 Change
 MAC frames to
 data frames (see 31.5.1)

IEEE P802.3as D2.2 Frame format extensions Comments

Cl 64 SC 64.2.2.7 P 92 L 9 # 7

Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Should MAC:MA_DATA.request(DA, SA, data_tx) be MCF:MA_DATA.request(DA, SA, data_tx)? If it's 'data_tx' on line 9, wouldn't it be the same payload at line 36 (but it's 'data' there)?

SuggestedRemedy

Correct if appropriate.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

I think you are correct.

Cl 99 SC 99 P 8 L 28 # 52

Dawe, Piers Avago Technologies

Comment Type E Comment Status D

Beginning and end of this paragraph is in 9 point

SuggestedRemedy

Reset all to default (10 point)

Proposed Response Response Status W

PROPOSED ACCEPT.