Cl **00** *SC* *P* *L* *Comment #* 1

Parsons, Glenn — Nortel

Comment Type **TR** *Comment Status* **X**

There is text in clasue 43B.2 on basic and tagged frames that needs to be modified based on the

Suggested Remedy

Change 43B.2.d from:
d) PDUs generated by these protocols shall use the Basic and not the Tagged frame format (see Clause 3).
to:
d) PDUs generated by these protocols shall use the basic and not the tagged or envelope frame format (see Clause 3).

Response *Response Status* **W**

Accept

Cl **01** *SC* **1.4** *P* **3** *L* **38** *Comment #* 27

Thompson, Geoff — Nortel

Comment Type **E** *Comment Status* **X**

I don't think I am going to like the terms "tagged frame" and "envelope frame" but we will see after I complete my review.

Suggested Remedy

Extended frame may be more appropriate

Response *Response Status* **W**

Reject. ‘tagged’ is a grandfathered term. ‘envelope’ was chosen as the most appropriate. Extended implies that there are extra .3 defined fields -- and there are not.

Cl **02** *SC* **2.1** *P* **5** *L* **37** *Comment #* 28

Thompson, Geoff — Nortel

Comment Type **E** *Comment Status* **X**

I would like an editors note added here that this change is a service to humanity and doesn't actually have anything to do with the substance of frame extensions.

Same is true for Figure 2-1.

Suggested Remedy

Add editors note.

(Why isn't this change in 802.3am instead?

Response *Response Status* **W**

Accept. The editor's note will be removed before publication.

Cl **02** *SC* **2.1** *P* **5** *L* **38** *Comment #* 16

Squire, Matt — Hatteras Networks

Comment Type **T** *Comment Status* **X**

Given the MAC control sublayer is optional and the primitive exist whehter or not that optional sublayer is there, I don't think this statement can be true.

Suggested Remedy

Delete the added sentence - I'm not sure what it adds.

Response *Response Status* **W**

Reject. But the sentence as is could be confusing. Reword to indicate that the the same primitive interfaces to both MAC control (if present) and then to the MAC, or just to the MAC.

Cl **03** *SC* **3.1** *P* **9** *L* **34** *Comment #* 29

Thompson, Geoff — Nortel

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

Rather than deleting this text I would prefer to see the existing text modified to accomodate this project.

Suggested Remedy

Change existing text to:
Two ??? frames are specified in this clause:

a) A basic frame

b) An extended (expanded?) frame to accomodate EtherType protocols that tag or encapsulate a basic frame.

Response *Response Status* **W**

Accept in principle - retain 'envelope' -- see also comment 30

Cl **03** *SC* **3.1.2** *P* **11** *L* **7** *Comment #* 2

Parsons, Glenn — Nortel

Comment Type **E** *Comment Status* **X**

The vertical lines of figure 3-2 do not line up symmetricly with the primitives because of font substitutions in the conversion to PDF from Frame.

Suggested Remedy

Editor to fix the font problems so that the Figure appears correctly.

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.2.6** *P* **11** *L* **36** *Comment #* 31

Thompson, Geoff — Nortel

Comment Type **ER** *Comment Status* **X**

This is probably a bad idea.
It is generally a bad idea to specify paramters in more than one place

Suggested Remedy

Response *Response Status* **W**

Reject. It makes sense to indicate values in this clause.

Cl **03** *SC* **3.2.6** *P* **11** *L* **60** *Comment #* 3

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Within Footnote 1 there is a reference to Footnote 1 for the RAC address, which isn't provided.

Suggested Remedy

Add the RAC address to Footnote 1 and delete the circular reference.

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.2.7** *P* **12** *L* **14** *Comment #* 5

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Typo.

Suggested Remedy

Change "implemenation" to "implementation".

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.2.7** *P* **12** *L* **15** *Comment #* 17

Squire, Matt — Hatteras Networks

Comment Type **E** *Comment Status* **X**

"determined by the application of the particular implemenation" is confusing (at least to me).

Suggested Remedy

Maybe: "The maximum size of the data field is determined by the particular implementation. Ethernet implemenations may support one of three application modes as defined below: "

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.2.7** *P* **12** *L* **15** *Comment #* 6

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Suspect an incorrect cross-reference.

Suggested Remedy

Change "Figure 3-2" to "Figure 3-1".

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.2.7** *P* **12** *L* **17** *Comment #* 7

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Typo.

Suggested Remedy

Change "addtional" to "additional".

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.2.7** *P* **12** *L* **20** *Comment #* 8

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Grammer preference.

Suggested Remedy

Change "contain a IEEE" to "contain an IEEE".

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.2.7** *P* **12** *L* **23** *Comment #* 26

Fakterman, Boris — Intel

Comment Type **T** *Comment Status* **X**

The NOTE defines that MAC Client Data field encapsulation details are not visible to 802.3as standard. However encapsulated prefixes and suffixes of new extensions may hurt management and acceleration technology applied in already deployed MACs.
MAC Data Client field extensions shall include a general descriptor guiding management and acceleration technology applications to the IP payload, even if the extension is unknown to the MAC.
The NOTE shall be replaced with the suggested remedy

Suggested Remedy

3.2.7.1 Extension general structure
The envelope frame is intended to allow inclusion of additional prefixes and suffixes required by encapsulation. These frames will contain at least one Ethertype within the data field in addition to the type field. If present, they follow the MAC Type field and are carried as MAC Client Data. Note that the original client data must not exceed 1500 bytes which is its size in the basic frame.
Each separate extension shall start with an Ethertype and a two octet descriptor field adjacent to it. The extension shall contain even number of octets.
The descriptor shall provide information defining attributes for the extension prefix and suffix. Following format shall be applied for the Ethertypes inside a data field:
Figure describing proposed extension descriptor is located in the attached file.
Prefix length - 7 bits indicating number of prefix two-octets in the Ethertype, starting after the suffix length indication octet.
Suffix length - 7 bits indicating number of suffix two-octets in the Ethertype
FM - when set, this bit indicates that extension function modifies fields encapsulated by the extension
LM - when set, this bit indicates that extension function modifies the length of the fields encapsulated by the extension
Note 1: 802.1ae standard is an example of a payload fields changed by the extension.
Note 2: Extensions belonging to the following standards may not meet requirements in this subsection:
a)802.1q
b)802.1ad
c)802.1ae
d)802.1ag
e)802.1ah
f)802.1ak

Response *Response Status* **W**

Reject. 802.3 cannot prescribe or indicate the contents of the data field, and it is unlikely that 802.1 would want to either.

Cl **03** *SC* **3.2.7** *P* **12** *L* **24** *Comment #* 18

Squire, Matt — Hatteras Networks

Comment Type **E** *Comment Status* **X**

Maybe just a nitpick, but do the encapsulation protocols have to contain at least one Ethertype within the data field? Example: MPLS may encapsulate TDM via pseudowires - can it use a 2K frame size? MPLS may encapsulate a frame thats length encoded on the inside - it won't have an inner Ethertype (though it will have an inner length / type field).

Suggested Remedy

Clean up that sentence a little.

Response *Response Status* **W**

Accept. This is a nitpick. Reword to indicate that another length/type field is in the data field and it is typically an Ethertype.

Cl **03** *SC* **3.2.7** *P* **12** *L* **25** *Comment #* 9

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Clarification text.

Suggested Remedy

Change "in addition to the type field" to "in addition to the MAC type field".

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.2.7** *P* **12** *L* **26** *Comment #* 19

Squire, Matt — Hatteras Networks

Comment Type **T** *Comment Status* **X**

Just to nitipck on the last note, what happens if the original client data does exceed 1500B? We aren't enforcing anything in this standard to prohibit that, all we can do is make recommendations. The "must not" seems a bit strong for what we can actually detect and guarantee.

Suggested Remedy

Change to "Note that the additional MAC client data bytes are not intended for general purpose use by any application. They extra frame capacity is added with the specific intent that it be used by layer two encapsulation protocols that require additional encapsulation around an application originated Ethernet frame. Use of these extra octets for other purposes is not recommended, and may result in the frames being dropped as they may violate maximum frame size restrictions if encapsulation protocols are required to operate on them."

Response *Response Status* **W**

Reject, if the original client data is over 1500B it is rejected. The strong words are warranted since it is the only enforcement.

Cl **03** *SC* **3.2.7** *P* **12** *L* **3** *Comment #* 4

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Need to decide on the case level for the data field size "n" or "N" octets. In this line it is lowercase. In Figure 3-1 it is uppercase. In lines 17, 20, 21 on page 12 it is uppercase. In the formula in line 40 on page 12 it is lowercase.

Suggested Remedy

My preference would be to use uppercase throughout, but I leave that call to the esteemed Chair and Editor.

Response *Response Status* **W**

Accept in principle. Consult editorial experts on case.

Cl **03** *SC* **3.2.7** *P* **12** *L* **41** *Comment #* 20

Squire, Matt — Hatteras Networks

Comment Type **E** *Comment Status* **X**

The maximum size of the data field sentence should be in the previous section. When the data/pad section was divided, this sentence should have been moved to the earlier stuff.

Suggested Remedy

move to preceding (data) section.

Response *Response Status* **W**

Accept

Cl **03** *SC* **3.5** *P* **13** *L* **22** *Comment #* 33

Thompson, Geoff — Nortel

Comment Type **ER** *Comment Status* **X** *Thompson, Geoff*

I would like to see this material preserved in an Informative Annex.
I know of no place in 802.1 where there is such a succinct description of an 802.1Q frame.

Suggested Remedy

Place deleted material (with appropriate editing) into a (probably new) Informative Annex.

Response *Response Status* **W**

Accept in principle to create Annex 3A. But doesn't this imply we should also include details for envelope frames as well?

Cl **03** *SC* **Figure 3-1** *P* **10** *L* **3** *Comment #* 30

Thompson, Geoff — Nortel

Comment Type **ER** *Comment Status* **X**

If there are going to be definitions for different kinds of frames (and I think there should be unless we are just throwing everything out and going completely all the way to Jumbo) then I think we should keep two diagrams.

Suggested Remedy

Keep the "X'd" out diagram.
The diagram representing extended frames should say "50-N OCTETS"
(Which would imply a minimum tag size of 4 octets. This is not strictly a necessity, I can imagine a possibility that someone might ask for a TAG which is only the EtherType itself. I think that is a bad idea and there would be no great loss in precluding it.)

Response *Response Status* **W**

Accept in principle. A place is needed to proberly introduce the distinction between basic and envelope frames. Keeping two figures may help with descriptive text that there are two frame formats reworded in 3.1 per comment 29

Cl **03** *SC* **Figure 3-2** *P* **11** *L* **3** *Comment #* 32

Thompson, Geoff — Nortel

Comment Type **ER** *Comment Status* **X**

See comment #28

Suggested Remedy

Response *Response Status* **W**

Accept

Cl **04** *SC* **4.2.1.4** *P* **17** *L* **35** *Comment #* 22

Squire, Matt — Hatteras Networks

Comment Type **TR** *Comment Status* **X**

Its not clear that the truncating is dependent on the supported application. in the earlier section (3.2.7), we should give names to the various max frame sizes that can be supported, and then uset those application names here to say when you can/can't truncate. The way the text reads now, for example, a MAC claiming support for envelope frames can truncate after 1522 bytes (q-tag support), but that would seem wacky to allow that.

Suggested Remedy

maybe something like: The receiving CSMA/CD sublayer is not required to enforce the frame size limit, but it is allowed to trucate frames longer than those it supports based upon the maximum frame size supported by this implementation as defined in 3.2.7. When truncating a long frame, the CSMA/CD sublayer should report this event as an (implementation-dependent error). For basicFrame support, frames longer than maxBasicFrameSize can be truncated. For qtagFrame support, frames longer than maxQtagFrameSize can be truncated. For envelopeFrameSupport, frames longer than maxEnvelopFrameSize can be truncated.

Response *Response Status* **W**

Reject: This is legacy grandfathered text. There is no new behaviour here. The text does not imply to me that a station that supports larger frames will truncate them.

Cl **04** *SC* **4.2.4.2.1** *P* **17** *L* **38** *Comment #* 10

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Suspect incorrect cross-reference.

Suggested Remedy

Change "(see 3.2.1)" to "(see 3.2.7)".

Response *Response Status* **W**

Accept in principle, point to definition of envelope frames per resolution of comment 30

Cl **04** *SC* **4.2.4.2.1** *P* **17** *L* **38** *Comment #* 21

Squire, Matt — Hatteras Networks

Comment Type **T** *Comment Status* **X**

3.1.2 is the mapping of service interface to primives, not the definition of envelope frames (which aren't as a whole defined anywhere any more, I don't think).

Suggested Remedy

It would seem useful to define:
maxBasicFrameSize
maxQTagFrameSize
maxEnvelopFrameSize
rather than including formulas in the text

Response *Response Status* **W**

Accept in principle, need to define 'envelope' somewhere, perhaps expand 3.2.7 or 3.1 as per comment 29 as the reference. However, the formulas are grandfathered pascal and should probably not be changed.

Cl **04** *SC* **4.2.7.1** *P* **18** *L* **21** *Comment #* 11

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Suspect incorrect cross-reference.

Suggested Remedy

Perhaps change "see 3.2.1" to "see 3.2.7", but there may be a more explicit subclause to point to.

Response *Response Status* **W**

Accept. May need to create some text to define 'envelope' -- perhaps 3.1 per comment 29,30

Cl **04** *SC* **4.2.7.1** *P* **18** *L* **27** *Comment #* 23

Squire, Matt — Hatteras Networks

Comment Type **E** *Comment Status* **X**

I mentioned this in an earlier comment, but rather than typing maxBAsicFrameSize+qTagPrefixSize everywhere, can't we just name that to maxQtagFrameSize and use it consistently.

Suggested Remedy

Just think it would be easier to follow.

Response *Response Status* **W**

Reject. This is legacy grandfathered pascal syntax.

Cl **04** *SC* **4.2.7.1** *P* **18** *L* **48** *Comment #* 24

Squire, Matt — Hatteras Networks

Comment Type **T** *Comment Status* **X**

Eliminate the whole ""For Envelope frames..."" sentence - its unnecessary and therefore confusing. The data value is everything after lenght/type and before FCS, period.

Suggested Remedy

Delete delete delete...

Response *Response Status* **W**

Reject. This follows the pascal style with some useful description.

Cl **04** *SC* **4.2.7.1** *P* **18** *L* **53** *Comment #* 12

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Suspect incorrect cross-reference.

Suggested Remedy

Change "See 3.2.1" to "See 3.2.7".

Response *Response Status* **W**

Accept in principle, point to definition of envelope frames per resolution of comment 30

Cl **04** *SC* **4.2.9** *P* **20** *L* **22** *Comment #* 25

Squire, Matt — Hatteras Networks

Comment Type **T** *Comment Status* **X**

Can envelope frames be determined dynamically (e.g. be determined as envelop frames vs basic vs tagged)? Note tagged frames may in fact include envelope frames inside the VLAN tag so even "old" tagged frames can't be identified by Ethertype to be limited to 1522B.

Suggested Remedy

We could say MAC implementations supporting a maximumFrameSize of maxQtagFramesize (or basic+qtag) have the option of truncating based on whether a frame is basic or q-tagged, but implemenations supporting a maximumFrameSize of maxEnvelopFrameSize must truncate only based on that constant value.

Response *Response Status* **W**

Accept in principle. There is no way to detect if a frame is an envelope frame. Such guidance should be added, but perhaps in 4.4.2

Cl **04A** *SC* **4A.2.4.2** *P* **29** *L* **38** *Comment #* 13

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Suspect an incorrect cross-reference.

Suggested Remedy

Change "(see 3.2.1)" to "(see 3.2.7)".

Response *Response Status* **W**

Accept in principle, point to definition of envelope frames per resolution of comment 30

Cl **04A** *SC* **4A.2.7.1** *P* **30** *L* **30** *Comment #* 14

Martin, David — Nortel Networks

Comment Type **E** *Comment Status* **X**

Suspect incorrect cross-reference.

Suggested Remedy

Change "See 3.1.2}" to "See 3.2.7}".

Response *Response Status* **W**

Accept in principle, point to definition of envelope frames per resolution of comment 30

Cl **99** *SC* *P* **1** *L* **25** *Comment #* 15

Squire, Matt — Hatteras Networks

Comment Type **E** *Comment Status* **X**

Rather than introduce the "envelope" term in the immediate abstract, use more traditional terminology so people can understand without knowing about "envelope".

Suggested Remedy

Replace "requiring envelope information" with "requiring additional encapsulation before and/or after a traditional (basic) Ethernet frame."

Response *Response Status* **W**

Reject. Retain ‘envelope’ term with additional explanation (including some of this wording) per comment 30