

## IEEE 802.3cv D3.0 4-Pair PoE Maintenance Initial Sponsor ballot comments

Cl 79 SC 79.3.2 P23 L25 # I-1

Ran, Adeo Intel Corporation

Comment Type E Comment Status D

informative note should start with "NOTE" and em dash. See section 10.1 in the style manual.

*SuggestedRemedy*

Change "Note:" to "NOTE—" (em dash).

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 79 SC 79.3.2 P23 L26 # I-2

Ran, Adeo Intel Corporation

Comment Type E Comment Status D

"have greater than 12 octets" is awkward language.

*SuggestedRemedy*

Change to "have more than 12 octets" or "are longer than 12 octets".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change to "have more than 12 octets"

Cl 79 SC 79.3.2 P23 L27 # I-3

Ran, Adeo Intel Corporation

Comment Type E Comment Status D

In "12 octet TLVs" and "one valid 29 octet TLV", n-octet is a compound adjective, so a hyphen is required.

Also in many cells of Table 79–1a.

Proposed change is adding hyphens everywhere, but alternatively the table may be changed to have "number of octets in the TLV" as a column heading, and keep only numbers in the cells.

*SuggestedRemedy*

Change "12 octet" to "12-octet", and "29 octet" to "29-octet" in the text.

Change cells in Table 79–1a similarly.

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 145 SC 145.2.5.1 P26 L18 # I-4

Ran, Adeo Intel Corporation

Comment Type E Comment Status D

"When this occurs, the PSE shall not apply a voltage greater than VOff to the PI for at least Tdbo... before attempting another detection, except in the case of an open circuit..."

This sentence is complicated for an uninitiated reader. It be improved by removing a level of negation (assuming my understanding is correct).

*SuggestedRemedy*

Change "When this occurs, the PSE shall not apply a voltage greater than VOff " to "When this occurs, the PSE shall apply a voltage lower than or equal to VOff ".

Proposed Response Response Status W

TFTD

Is this a technical change? Is there a difference between non applying a voltage > X and applying a voltage < X? In my mind there is (the PSE going high impedance being one possible difference).

See I-18

Cl 145 SC 145.2.5.7 P30 L32 # I-5

Ran, Adeo Intel Corporation

Comment Type E Comment Status D

The assignment symbol in MEASURE\_ACS\_DONE is underlined. It suggests an insertion, but the whole table is replaced.

*SuggestedRemedy*

Remove the underline.

Proposed Response Response Status W

PROPOSED ACCEPT.

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Cl 145 SC 145.3.3.3.2 P32 L43 # I-6

Ran, Adee Intel Corporation

Comment Type E Comment Status D

"the PD wants to abort" reads funny. A PD is an inanimate object and doesn't have a will. The text in 145.3.6.2 does not use "want" either.

*SuggestedRemedy*

Change "the PD wants to abort" to "the PD is about to abort", or possibly "the PD aborts"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change "the PD wants to abort" to "the PD is aborting"

Cl 145 SC 145.3.3.4.5 P35 L18 # I-7

Ran, Adee Intel Corporation

Comment Type E Comment Status X

It seems that the only change in this state diagram (Figure 145-27) is in the "POWERED" state, but it is not easy to locate. It would help if the editorial instruction points to the change, as done in other cases.

If there are other changes they should also be included.

Similarly in Figure 145-42.

*SuggestedRemedy*

Change the editorial instruction to "Change the text inside state POWERED in Figure 145-27 as follows:"

Apply similar change in Figure 145-42.

Proposed Response Response Status W

TFTD

There was a good bit of discussion on the best way to do this.

Can we include instructions such as "Change the POWERED state in Figure 145-27 (continued) as follows:"?

Cl 145 SC 145.3.8.2 P36 L16 # I-8

Ran, Adee Intel Corporation

Comment Type T Comment Status D

The inserted text creates a sentence that is logically ambiguous because it has both AND and OR with no "parentheses":

"A PD that has enabled Autoclass during Physical Layer classification and drew a power higher than Class 1 power during the period bounded by TAUTO\_PD1 and TAUTO\_PD2 or has requested Autoclass through DLL"

I assume the meaning is "that has either enabled Autoclass during classification and drew power, or requested Autoclass during DLL"

*SuggestedRemedy*

This can be improved somewhat by adding the word "either" after "that has" and a comma before the "or" (as in the comment) if my interpretation is correct.

If I got it wrong, then "either" should be placed after the "and".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change to:

"A PD that has either enabled Autoclass during Physical Layer classification and drew a power higher than Class 1 power during the period bounded by TAUTO\_PD1 and TAUTO\_PD2, or has requested Autoclass through DLL"

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Cl 145 SC 145.5.3.2.2 P37 L7 # I-9

Ran, Adee Intel Corporation

Comment Type T Comment Status X

The updated text creates a logical expression as the title of what looks like a column in a table in the text. It's not typical to have such logical expressions outside of state diagrams, and this condition is quite difficult to understand, as it's split across two lines.

It may help the reader if the condition is simply spelled out.

The comment also applies to pd\_initial\_value on page 40.

*SuggestedRemedy*

Insert the following paragraph after "This variable is set per this description.":  
 "If pd\_autoclass is TRUE and pd\_autoclass\_cancelled is FALSE, then this variable is set to the value 0xACAC (decimal 44204). Otherwise, it is set according to pse\_allocated\_pwr, as follows:"

Delete the first "column" and the last "row" in the table following "Values:".

Apply corresponding changes to pd\_initial\_value.

Proposed Response Response Status W

TFTD

The provided solution for pse\_initial value. However, the suggested remedy also says to apply solution to pd\_initial\_value. I don't believe that is necessary, but the variables used are different. Please review.

Cl 145 SC 145.5.3.2.2 P37 L20 # I-10

Ran, Adee Intel Corporation

Comment Type T Comment Status D

"derived from pse\_allocated\_pwr\_pri and pse\_allocated\_pwr\_sec variables (145.2.5.6), which is used in the PSE state diagrams..."

if "which" refers to pse\_allocated\_pwr\_pri and pse\_allocated\_pwr\_sec, shouldn't it be "which are used"?

But I don't see these variables in any state diagram; is it actually pse\_initial\_value\_alt(X) that is used (e.g. in Figure 145-42)? if so, the paragraph should instead start with "This variable is used in the PSE state diagrams".

Pointing to specific diagrams would be preferable.

*SuggestedRemedy*

Based on the answers to the question in the comment, update the text accordingly.

Consider pointing to the specific diagrams which the reader should refer to.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Change "which is used" to "which are used"

Cl 145 SC 145.5.3.2.2 P37 L18 # I-11

Ran, Adee Intel Corporation

Comment Type T Comment Status X

The variable pse\_initial\_value\_alt(X) suggests that it is a function (based on input X) or multiple variables.

Is X one of the alternatives A or B? or is it "pri"/"alt"?

Also, the "values" table has one column which lists values for two variables. It is unclear which one should be used.

Is this "variable" actually a function?

*SuggestedRemedy*

Clarify the text to indicate how both variables affect the single value of the variable pse\_initial\_value\_alt(X).

If necessary, change the definition to a function and move it to the "functions" subclause.

Proposed Response Response Status W

TFTD

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Cl 145 SC 145.2.5 P L # I-12

Ran, Adele Intel Corporation

Comment Type T Comment Status D

There are many variables in the original amendment, in 145.2.5.4, 145.2.5.6, and 145.2.5.7, which have the suffix (X), but it is unclear what this X means.

In 145.3.3.4 (which discusses PDs) there is a clear explanation of what X means and which values it can take, but there is nothing similar for 145.2.5.4 (which discusses PSEs).

*SuggestedRemedy*

Add a subclause similar to 145.3.3.4 to describe X for PSEs, or clarify this in some other way. This should be done for several variables in the original amendment that are not listed in this draft.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

TFTD. We need something like 145.3.3.2 in the PSE section. One option would be to move 145.3.3.2 to the PSE section (to be part of 145.2.5.2) and to then reference it 145.3.3.2.

Cl 145 SC 145.2.5.7 P30 L1 # I-13

Jones, Chad Cisco Systems, Inc.

Comment Type TR Comment Status X

\*\*\* Comment submitted with the file cjones\_D3p0comment.pdf attached \*\*\*

NOTE: this comment is against State Diagrams that aren't in the D3.0 document. Looking at the published standard, this comment is against Figure 145-15 on document page 144, 145 and Figure 145-16 on document page 148, 149.

Start of comment:

The single signature PSE state diagram (Figure 145-13) on page 139 allows the path from CLASSIFICATION to CLASS\_PROBE to CLASS\_RESET and to CLASS\_EV1\_LCE. This path allows a PSE to perform a class probe, perform a class reset and then immediately perform multi-event classification (without having to perform detection/CC).

Moving to the dual signature PSE state diagrams (we will talk only about the PRI diagram 145-15 since the SEC diagram is identical), at the top of page 144 we see the path is CLASSIFICATION\_PRI to CLASS\_PROBE\_PRI. contrasting the SS SD, there are two paths out of CLASS\_PROBE\_PRI, and either allows the PSE to perform a class reset and then move to multi-event classification. One arc travels to CLASS\_RESET\_PRI, to CLASS\_EV1\_LCE\_4PID\_PRI, then to MARK\_EV\_LAST\_PRI. Only one event is allowed in this case. If the PSE needs to perform multi-event classification, it must use the other arc back to IDLE\_PRI which requires a new detection and CC. There is no technical justification to force the two PSEs 'flavors' to behave differently in this case. My comment will modify the dual signature state diagrams to allow multi-event classification immediately after a class probe.

*SuggestedRemedy*

See the attachment, where the changes are marked up. the modification is shown against Figure 145-15, the same change will need made to Figure 145-16.

textual explanation:

pg 144

delete the IDLE\_PRI arc from CLASS\_PROBE\_PRI.

delete "(pse\_avail\_pwr\_pri < 4)" from the arc to CLASS\_RESET\_PRI. [the only arc from CLASS\_PROBE\_PRI is to CLASS\_RESET\_PRI]

add an empty label arc into CLASS\_EV1\_LCE\_PRI.

pg 145

add "(pse\_avail\_pwr\_pri < 4)" to the arc from CLASS\_RESET\_PRI to CLASS\_EV1\_LCE\_4PID\_PRI

add a new arc out to CLASS\_RESET\_PRI to CLASS\_EV1\_LCE\_PRI with the exit condition: "tclass\_reset\_timer\_pri\_done \* (pse\_avail\_pwr\_pri ≥ 4)"

perform same changes to Figure 145-16 on page 148, 149.

Proposed Response Response Status W

TFTD.

Comment resolution group to review referenced pdf.

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CI 79 SC 79.3.2 P23 L6 # I-14  
 Rolfe, Benjamin Blind Creek Associates  
 Comment Type E Comment Status D  
 Editing instruction is incorrect. As the change (deletion) is shown the editing instruction should be "change last paragraph...".  
 SuggestedRemedy  
 Change "Delete" to "Change".  
 Proposed Response Response Status W  
 PROPOSED ACCEPT IN PRINCIPLE.  
 TFTD  
 Should we combine the editing instructions on line 6 and line 15? We would use the change instruction and then show the full deletion and insertion.

CI 79 SC 79.3.2 P23 L25 # I-15  
 Rolfe, Benjamin Blind Creek Associates  
 Comment Type E Comment Status D  
 The editing instruction is "insert" so we expect all the text that follows is new. Why are there change bars shown for the Note, table and paragraph following the table? As this is the initial ballot, the presence of change bars is confusing.  
 SuggestedRemedy  
 Remove extraneous change bars.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 79 SC 79.3.2 P23 L25 # I-16  
 Zimmerman, George CME Consulting, Analog Devices Inc., Cisco Systems,  
 Comment Type E Comment Status D  
 Note should be in NOTE style (frame style, and Note should be "NOTE <em-dash>"  
 SuggestedRemedy  
 Change "Note: " and text on lines 25-29 to frame NOTE- style.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 79 SC 79.3.2 P23 L47 # I-17  
 Zimmerman, George CME Consulting, Analog Devices Inc., Cisco Systems,  
 Comment Type T Comment Status D  
 "based on the length of the first classification event or based on the length of a received Power via MDI TLV". In the first case, this is a time duration, in the second case, this is a number of octets. Using "length" for both is marginally correct, but a little confusing, since one is a physical (time) measurement and the other is logical (byte count).  
 SuggestedRemedy  
 Change "length of the first classification event" to "duration of the first classification event" on line 47.  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

