

IEEE P802.3bt D3.5 4-Pair Power over Ethernet 5th Sponsor recirculation ballot comments

Cl **FM** SC **FM** P11 L41 # r05-1  
 Anslow, Peter Ciena Corporation

Comment Type **E** Comment Status **A** Editorial

The text regarding IEEE Std 802.3.1 is present in both the old version and the new version (including IEEE Std 802.3.2)

*SuggestedRemedy*

Delete the paragraph "A companion document IEEE Std 802.3.1 describes Ethernet management information base (MIB) modules for use with the Simple Network Management Protocol (SNMP). IEEE Std 802.3.1 is updated to add management capability for enhancements to IEEE Std 802.3 after approval of the enhancements."

Response Response Status **C**

ACCEPT.

Cl **30** SC **30.9.1.1.2** P38 L22 # r05-2  
 Anslow, Peter Ciena Corporation

Comment Type **E** Comment Status **A** Editorial

The text in the base standard has changed from:  
 the enumeration "enabled."  
 to:  
 the enumeration "enabled".  
 i.e. the "." has moved outside the quotes.  
 However, this is incorrectly being shown as a change in the P802.3bt draft with underline and strikethrough font.

*SuggestedRemedy*

Delete the text shown with strikethrough font and remove the underline from: "enabled".

Response Response Status **C**

ACCEPT IN PRINCIPLE.

Delete the text shown with strikethrough font and remove the underline from: "enabled".

Also, refer comment to publication editor for checking during integration.

Cl **145** SC **145.2.10** P174 L42 # r05-3  
 Anslow, Peter Ciena Corporation

Comment Type **E** Comment Status **A** Editorial

Table 145-16 now has two items numbered 18

*SuggestedRemedy*

Renumber the items from the second 18 onwards to be 19 through 25

Response Response Status **C**

ACCEPT.

Cl **145** SC **145.3.8.9** P221 L16 # r05-4  
 Anslow, Peter Ciena Corporation

Comment Type **E** Comment Status **A** Editorial

The IEEE Style manual 16.1 includes: "Within each subclause, notes should be numbered sequentially, i.e., "NOTE 1--", "NOTE 2--", etc."

*SuggestedRemedy*

Change the two notes in 145.3.8.9 to be "NOTE 1--" and "NOTE 2--"

Response Response Status **C**

ACCEPT.

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Cl 145 SC 145.5.3.3.1 P248 L50 # r05-5  
 Anslow, Peter Ciena Corporation

Comment Type T Comment Status A DLL

PDRequestedPowerValue\_mode(X) has a detailed description of the meaning of the variable and then a "Values:" entry of "0".  
 This is rather confusing without some additional explanation that this is a dual signature field in the single signature section and therefore the value can only be 0.

SuggestedRemedy

Add an additional sentence of explanation as per the comment.

Response Response Status C

ACCEPT IN PRINCIPLE.

Replace the description of PDRequestedPowerValue\_mode(X) as follows:  
 "Integer that indicates the PD requested power value for a dual-signature PD on Mode X in units of 0.1 W.  
 This variable is set to 0 by the single-signature PD power control state diagram.  
 This variable is mapped into the aLldpXdot3LocPDRequestedPowerValueA and aLldpXdot3LocPDRequestedPowerValueB attribute (30.12.2.1.17a and 30.12.2.1.17b).  
 Values: 0"

Similarly, change on p249.line 1 the description of PSEAllocatedPowerValueEcho\_mode(X) to:  
 "This variable is updated by the PD state diagram. This variable maps into the aLldpXdot3LocPSEAllocatedPowerValueA and aLldpXdot3LocPSEAllocatedPowerValueB attribute (30.12.2.1.18a and 30.12.2.1.18b).  
 \*\*This variable is set to 0 by the single-signature PD power control state diagram.\*\*  
 Values: 0"

Cl 145 SC 145.5.3.3.1 P249 L5 # r05-6  
 Anslow, Peter Ciena Corporation

Comment Type T Comment Status A

PSEAllocatedPowerValueEcho\_mode(X) has a description of where it is mapped to and then a "Values:" entry of "0".  
 This is rather confusing without some additional explanation that this is a dual signature field in the single signature section and therefore the value can only be 0.

SuggestedRemedy

Add an additional sentence of explanation as per the comment.

Response Response Status C

ACCEPT IN PRINCIPLE.

Replace the description of PDRequestedPowerValue\_mode(X) as follows:  
 "Integer that indicates the PD requested power value for a dual-signature PD on Mode X in units of 0.1 W.  
 This variable is set to 0 by the single-signature PD power control state diagram.  
 This variable is mapped into the aLldpXdot3LocPDRequestedPowerValueA and aLldpXdot3LocPDRequestedPowerValueB attribute (30.12.2.1.17a and 30.12.2.1.17b).  
 Values: 0"

Similarly, change on p249.line 1 the description of PSEAllocatedPowerValueEcho\_mode(X) to:  
 "This variable is updated by the PD state diagram. This variable maps into the aLldpXdot3LocPSEAllocatedPowerValueA and aLldpXdot3LocPSEAllocatedPowerValueB attribute (30.12.2.1.18a and 30.12.2.1.18b).  
 \*\*This variable is set to 0 by the single-signature PD power control state diagram.\*\*  
 Values: 0"

Cl 0 SC 0 P L # r05-7  
 Alessi, Julie

Comment Type E Comment Status A Editorial

Draft meets all editorial requirements.

SuggestedRemedy

Response Response Status C

ACCEPT IN PRINCIPLE.

No changes to draft result from accepting this comment. In addition, no change was requested as the draft meets all editorial requirements.

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Cl 0 SC 0 P1 L2 # r05-8  
 Anslow, Peter Ciena Corporation

Comment Type G Comment Status A Editorial

Provided that the IEEE SASB approve the IEEE Std 802.3 revision in their meeting on 14 June 2018, the "base\_year" variable should be changed to 2018 throughout the draft.

SuggestedRemedy

Provided that the IEEE SASB approve the IEEE Std 802.3 revision in their meeting on 14 June 2018, change the "base\_year" variable to 2018 in all of the files in the draft.

Response Response Status C

ACCEPT.

Cl 145 SC 145.4.2 P200 L # r05-9  
 Waters, Keith Schneider Electric

Comment Type T Comment Status A

I accept the response and understand. While I still have some concerns about the increased power, I believe these concerns can be handled within the product standards.

SuggestedRemedy

Response Response Status C

ACCEPT IN PRINCIPLE.

The Chair has confirmed with the author that this comment is in reference to i-23. This comment serves to accept the rejection of the original comment which will be closed out of the carried forward unsats. No changes to the draft as a result of accepting this comment.

Cl 145 SC 145.2.8.8 P162 L # r05-10  
 Waters, Keith Schneider Electric

Comment Type T Comment Status A

I accept the response and understand. While I still have some concerns about the increased power, I believe these concerns can be handled within the product standards

SuggestedRemedy

Response Response Status C

ACCEPT IN PRINCIPLE.

The Chair has confirmed with the author that this comment is in reference to i-22. This comment serves to accept the rejection of the original comment which will be closed out of the carried forward unsats. No changes to the draft as a result of accepting this comment.

Cl 145 SC 145.2.8.7 P162 L # r05-11  
 Waters, Keith Schneider Electric

Comment Type T Comment Status A

I accept the response and understand. While I still have some concerns about the increased power, I believe these concerns can be handled within the product standards

SuggestedRemedy

Response Response Status C

ACCEPT IN PRINCIPLE.

The Chair has confirmed with the author that this comment is in reference to i-21. This comment serves to accept the rejection of the original comment which will be closed out of the carried forward unsats. No changes to the draft as a result of accepting this comment.

Cl 79 SC 79.3.2.6c.3 P94 L24 # r05-12  
 Yseboodt, Lennart Signify

Comment Type T Comment Status A LLDP

OOS

The PSE power pairs ext subfield is intended to indicate the currently active powering mode of the PSE (4-pair, Alt A only, or Alt B only).

However the text does not clearly indicate this needs to be a status field, rather than a static 'capability' field.

Looking at the legacy variant of this, which points back to 30.9.1.1.4 aPSEPowerPairs, it is clear this should be a status field.

SuggestedRemedy

Replace "The 'PSE power pairs ext' field shall contain an integer value for PSE power pairs defined by 145.2.4."

by

"The 'PSE power pairs ext' field shall contain the current powering status of the PSE, as defined in Table 79-6e."

Response Response Status C

ACCEPT IN PRINCIPLE.

Replace "The 'PSE power pairs ext' field shall contain an integer value for PSE power pairs defined by 145.2.4."

by

"The 'PSE power pairs ext' field shall contain the powering status of the PSE, as defined in Table 79-6e."

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Cl 79 SC 79.3.2.6e P96 L32 # r05-13  
Yseboodt, Lennart Signify

Comment Type T Comment Status A LLDP  
OOS

For the 'PSE maximum available power value' it is not stated what a PD must set this field to.

*SuggestedRemedy*

Append at the end of the paragraph of 79.3.2.6e:  
"A PD shall set this field to zero."

In addition, change sentence on line 34 to the following:  
"When connected to a dual-signature PD this value refers to the total amount of power available at the PI, even though power is allocated separately on a per pairset basis."

Update PICS.

Response Response Status C  
ACCEPT.

Cl 145 SC 145.2.8.1 P171 L7 # r05-14  
Yseboodt, Lennart Signify

Comment Type T Comment Status R PSE  
OOS

A PSE that measures if a PD requests Autoclass must do the IClass measurement after 88ms, but before the end of the class event.

This measurement time is named TClass\_ACS.

In Table 145--14, no maximum is provided for TClass\_ACS.

This can be fixed by changing the maximum to be T\_LCE.

*SuggestedRemedy*

Change Table 145-14, item9, TClass\_ACS, maximum to be "T\_LCE"

Response Response Status C  
REJECT.

The state diagram accurately reflects the behavior of the PSE using the current variable definitions.

Cl 145 SC 145.3.4 P205 L5 # r05-15  
Yseboodt, Lennart Signify

Comment Type T Comment Status A PD

"with any resistance greater than 45 kOhm across the other Mode and one pair connected to the positive potential of the given Mode"

We want to indicate that one pair of the "other Mode" gets connected to the positive of the "given Mode".

*SuggestedRemedy*

Change as follows:

"with any resistance greater than 45 kOhm across the other Mode and one pair \*\*of the other Mode\*\* connected to the positive potential of the given Mode"

Response Response Status C  
ACCEPT.

Cl 145 SC 145.5.3.3.1 P248 L48 # r05-16  
Yseboodt, Lennart Signify

Comment Type E Comment Status A DLL

The variable PDRRequestedPowerValue\_mode(X) can only have zero as a valid value because this is a single-signature PD state diagram.

That is a bit weird and might be confused with an editorial error.

*SuggestedRemedy*

Replace the description of PDRRequestedPowerValue\_mode(X) as follows:

"Integer that indicates the PD requested power value for a dual-signature PD on Mode X in units of 0.1 W.

This variable is set to 0 by the single-signature PD power control state diagram.

This variable is mapped into the aLldpXdot3LocPDRRequestedPowerValueA and aLldpXdot3LocPDRRequestedPowerValueB attribute (30.12.2.1.17a and 30.12.2.1.17b).  
Values: 0"

Similarly, change on p249.line 1 the description of PSEAllocatedPowerValueEcho\_mode(X) to:

"This variable is updated by the PD state diagram. This variable maps into the aLldpXdot3LocPSEAllocatedPowerValueA and aLldpXdot3LocPSEAllocatedPowerValueB attribute (30.12.2.1.18a and 30.12.2.1.18b).

\*\*This variable is set to 0 by the single-signature PD power control state diagram.\*\*  
Values: 0"

Response Response Status C  
ACCEPT.

IEEE P802.3bt D3.5 4-Pair Power over Ethernet 5th Sponsor recirculation ballot comments

Cl 145 SC 145.7.3.2 P275 L46 # r05-17

Yseboodt, Lennart

Signify

Comment Type E Comment Status A Editorial

The requirements for PD33 and PD34 have been deleted.

*SuggestedRemedy*

Delete PD33 and PD34 from the PICS table.

Response Response Status C

ACCEPT.

Cl 145 SC 145.3.9 P222 L49 # r05-18

Darshan, Yair

Comment Type T Comment Status A

UPDATE COMMENT AND REMEDY:

During the email discussions over the reflector, some argue that unless we have something broken, it is better not to make changes at this point of time (in order not to draw new comments and finish the project on time) even if it is informative link in the PD MPS section to Irev in the PSE section.

So here is a broken spec argument with interoperability concern with legacy devices. Legacy PDs that worked well with Type 1 and 2 PSEs may have issue with MPS when operating in 3-pair mode in Type 3 and Type 4 PSEs.

Example: when a PD Type 1 or 2 with ideal diode bridge that has the backfeed issue in 3-pair mode don't want to be powered (but still stay physically connected) it generates e.g. MPS=3.9mA. In Type 1 and 2 PSE it will be disconnected as the spec requires. When this PD will be connected to Type 3 or 4 operating at 3-pair mode, Irev=1.3mA max may change the MPS to be higher than 4mA and the PD will not be disconnected as required by the spec.

Now we have two issues:

(1) The legacy PD will not work as expected.

(2) PD designers may miss the effect of Irev on Iport\_MPS since PD section has no clue about Irev and it is complex to figure out the dependencies without minimum hint/guidance or link to Irev in the PSE section.

*SuggestedRemedy*

Add the following text after line 49:

Option 1:

"Irev can change the value of IPort\_MPS. See 145.2.10.4, 145.3.8.8."

Option 2:

"IPort\_MPS depends on the value of Irev. See 145.2.10.4, 145.3.8.8."

Option 3:

Change from (Clause 145.3.2 page 190 lines 4-5): "A PD shall meet the requirements of detection (145.3.4), PD signature configuration (145.3.5), and PD classification (145.3.6) in any valid 2-pair configuration, as defined in Table 145-20."

To: "A PD shall meet the requirements of detection (145.3.4), PD signature configuration (145.3.5) and PD classification (145.3.6) in any valid 2-pair configuration, as defined in Table 145-20. PD shall meet Iport\_MPS requirements in any valid 2-pair configuration, as defined in Table 145-20"

Response Response Status C

ACCEPT IN PRINCIPLE.

Add "See 145.2.12, 145.2.10.4, 145.3.8.8." at page 223 at end of line 35.

IEEE P802.3bt D3.5 4-Pair Power over Ethernet 5th Sponsor recirculation ballot comments

Cl 145 SC 145.2.10.3 P176 L24 # r05-19

Darshan, Yair

Comment Type T Comment Status A

UPDATE COMMENT AND REMEDY:

In clause 145 we have:

"145.2.10.3 Voltage transients

A PSE shall maintain an output voltage no less than VTran-2P for transient conditions lasting more than 30 us and less than 250 us, and meet the requirements of 145.2.10.9.

[SPACE]

\*\*Transients less than 30 us in duration may cause the voltage at the PI to fall below VTran-2P\*\*. See 145.3.8.6 for PD transient requirements. Transients lasting more than 250 us shall meet the VPort\_PSE-2P specification."

The problem is with the marked text (\*\*). This text was meant to tell us what could be the voltage value for transients below 30usec but it looks like it is going to start new requirement but it doesn't and it shouldn't (it sends the reader to "see 145.3.8.6 for PD transient requirements" where PD is clearly defines what to do with transients <30usec which is to continue to operate if >=34V so the reader may think that now the PSE is going to specify requirements below 30usec as well).

I suggest to append these two paragraphs so when it is red, it is clear that we have 1st requirement,informative text, 2nd requirement as we have in clause 33.

This change can't delay us since it is as in clause 33.

*SuggestedRemedy*

Append line 24 to the end of line 22 to read:

"A PSE shall maintain an output voltage no less than VTran-2P for transient conditions lasting more than 30 us and less than 250 us, and meet the requirements of 145.2.10.9.

Transients less than 30 us in duration may cause the voltage at the PI to fall below VTran-2P. See 145.3.8.6 for PD transient requirements. Transients lasting more than 250 us shall meet the VPort\_PSE-2P specification."

Response Response Status C

ACCEPT IN PRINCIPLE.

Remove paragraph break on p176, line 22.