Cl **1** *SC* **1.4.324** *P* **18** *L* **12** # 4

Thompson, Geoff GraCaSI S.A.

Comment Type **TR** *Comment Status* **A** *Definitions*

The definition of MDI in the 2018 published standard doesn't include a reference to clause 145.

SuggestedRemedy

Change the following text in the referenced clause from: “(optional per IEEE Std 802.3, Clause 33)” to: “(optional per IEEE Std 802.3, Clause 33 and 145)”

Response *Response Status* **C**

ACCEPT.

Cl **33** *SC* **33** *P* **19** *L* **4** # 3

Thompson, Geoff GraCaSI S.A.

Comment Type **TR** *Comment Status* **A** *Editorial*

States that draft is drawn from IEEE Std 802.3-2018. Draft should be drawn upon IEEE Std 802.3 – 2018 plus published amendments. In particular, the one that is relevant is IEEE Std 802.3bt – 2018.

SuggestedRemedy

Reformulate the note and rest the baseline draft to the current state of the standard.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change all reference to the base standard to latest approved standard including amendments.

(Header of Clause 33 is wrong)

Cl **33** *SC* **33.1** *P* **19** *L* **15** # 5

Thompson, Geoff GraCaSI S.A.

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

Clause does not sufficiently restrict the scope to the actual scope of the clause, i.e. multi-pair.

SuggestedRemedy

Change: "...for deployment over balanced twisted-pair cabling."
To: "...for deployment over multiple pair balanced twisted-pair cabling."

Response *Response Status* **C**

ACCEPT.

Cl **33** *SC* **33.1.3** *P* **21** *L* **38** # 6

Thompson, Geoff GraCaSI S.A.

Comment Type **TR** *Comment Status* **A** *Definitions*

Circular reference

SuggestedRemedy

Change “406” to “308” or (preferably to “link section”.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

This sentence is referring to the PI which is defined in 1.4.406 in the 2018 standard.

Change sentence to:

The Power Interface (PI), as
defined in 1.4.406, is the mechanical and electrical interface between the Power Sourcing Equipment (PSE) or Powered Device (PD) and the transmission medium.

Cl **33** *SC* **33.2.4.7** *P* **35** *L* **1** # 2

Hajduczenia, Marek — Charter Communicatio

Comment Type **TR** *Comment Status* **R** *Management*

Figure 33–9—PSE state diagram does not contain state ERROR_DELAY_OVER or ERROR_DELAY_SHORT, but instead ERROR_DELAY only. The problem exists in 2018 2015, and 2012 editions of the standard. The state “ERROR_DELAY_OVER” and “ERROR_DELAY_SHORT” were present in 2008 edition but merged thereafter, but the associated text has never been updated accordingly.

Note that the changes needed are in Clause 30, which is *not* included in the draft right now

SuggestedRemedy

In 30.9.1.1.9, change:
“This counter is incremented when the PSE state diagram (Figure 33–9) enters the state ERROR_DELAY_OVER.” to:
“This counter is incremented when the PSE state diagram (Figure 33–9) enters the state ERROR_DELAY due to the ovld_detected variable being TRUE.”

In 30.9.1.1.10, change:
“This counter is incremented when the PSE state diagram (Figure 33–9) enters the state ERROR_DELAY_SHORT.” to:
“This counter is incremented when the PSE state diagram (Figure 33–9) enters the state ERROR_DELAY due to the short_detected variable being TRUE.”

Response *Response Status* **C**

REJECT.

These counters were altered in the BT amendment and thus the comment and suggested remedy no longer apply. This issue needs to be addressed as a maintenance request against the Yang amendment.

Chad Jones will submit the request.

Cl **33** *SC* **33.2.7.8** *P* **50** *L* **53** # 7

Yseboodt, Lennart — Signify

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

The section on turn off time has this to say:
"The PSE remains in the IDLE state as long as the average voltage across the PI is V Off."

This makes no sense... if this were true the state diagram would be stuck in IDLE forever, because the voltage in IDLE is required to be less than Voff.

SuggestedRemedy

Delete sentence.

Response *Response Status* **C**

ACCEPT.

Cl **33** *SC* **33.2.7.9** *P* **51** *L* **6** # 8

Yseboodt, Lennart — Signify

Comment Type **T** *Comment Status* **D** *PSE Power*

"The specification for V Off in Table 33-11 shall apply to the PI voltage in the IDLE State."

As we discovered in BT, there are more states where this needs to apply.
Note: impacts legacy requirement.

SuggestedRemedy

Replace by:
"The specification for V Off in Table 33-11 shall apply to the PI voltage in the BACKOFF, DISABLED, ERROR_DELAY, and IDLE states."

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

Cl **33** *SC* **33.2.8** *P* **51** *L* **38** # 9

Yseboodt, Lennart Signify

Comment Type **T** *Comment Status* **A** *PSE Power*

"A PSE does not initiate power provision to a link if the PSE is unable to provide the maximum power level requested by the PD based on the PD's class."

Statement is incorrect as it would disallow power demoting a Class 4 PD to Class 3.
We fixed this in BT and the same text can serve us here.

SuggestedRemedy

Replace by:
"A PSE does not initiate power provision to the link if the PSE has less than Class 3 power available and the connected PD requests more than the available power."

Response *Response Status* **C**

ACCEPT.

Cl **33** *SC* **33.2.9.1.2** *P* **52** *L* **39** # 10

Yseboodt, Lennart Signify

Comment Type **T** *Comment Status* **R**

There is a discrepancy in the DC MPS specifications, both in Clause 33 and Clause 145. We should keep these consistent.

One one hand:
"The PSE shall not remove power from the port when I Port is greater than or equal to I Hold max continuously for at least T MPS every T MPS + T MPDO , as defined in Table 33-11."

The state diagram on the other hand starts a tmpdo_timer (value: T_MPDO) and removes power unless mr_mps_present=TRUE before the timer is done.
That variable only becomes TRUE when the current>Ihold continuously for TMPS.

Summary: the text allows the TMPS window to be outside the TMPDO window, whereas the state diagram requires it to be inside the TMPDO window.

Looking at the values for these, if we follow the state diagram, with a minimum value of TMPDO (300ms) and maximum value of TMPS (60ms), a compliant PD will FAIL to remain powered.

SuggestedRemedy

Given that we can't change PD MPS timings, we need to change the state diagram such that it allows for TMPDO + TMPS windows.
This can be achieved in the timer description.

In 33.2.4.5 change tmpdo_timer to read:
A timer used to monitor the dropout of the MPS; see T MPDO in Table 33-11. The value of this timer is set to TMPDO + TMPS, with a maximum value of TMPDO_max, as defined in Table 33-11.

Response *Response Status* **C**

REJECT.

Consensus could not be reached on a remedy.

Cl **33** *SC* **33.5.1.2.8** *P* **84** *L* **18** # 1

Hajduczenia, Marek — Charter Communicatio

Comment Type **TR** *Comment Status* **R** *Management*

Figure 33–9—PSE state diagram does not contain state ERROR_DELAY_OVER or ERROR_DELAY_SHORT, but instead ERROR_DELAY only. The problem exists in 2018 2015, and 2012 editions of the standard. The state “ERROR_DELAY_OVER” and “ERROR_DELAY_SHORT” were present in 2008 edition but merged thereafter, but the associated text has never been updated accordingly.

SuggestedRemedy

In 33.5.1.2.7, change:
“This bit shall be set to one when the PSE state diagram (Figure 33–9) enters the state ‘ERROR_DELAY.’” to:
“This bit shall be set to one when the PSE state diagram (Figure 33–9) enters the state ‘ERROR_DELAY’ due to the short_detected variable being TRUE.”

In 33.5.1.2.8, change:
“This bit shall be set to one when the PSE state diagram (Figure 33–9) enters the state ‘ERROR_DELAY_OVER’.” to:
“This bit shall be set to one when the PSE state diagram (Figure 33–9) enters the state ‘ERROR_DELAY’ due to the ovld_detected variable being TRUE.”

In 33.8.3.7 Management function requirements, item MF30, change:
“Bit indicates an overload condition has been detected. Set to one when entering the ERROR_DELAY_OVER state” to:
“Bit indicates an overload condition has been detected. Set to one when entering the ERROR_DELAY state due to the ovld_detected variable being TRUE”

Response *Response Status* **C**

REJECT.

As the response to comment 2 points out, there needs to be alignment between these registers, the management objects, and Yang. A complete solution is needed before changes are made.

Cl **33** *SC* **33.7.5** *P* **694** *L* # 11

Darshan, Yair — Microchip

Comment Type **TR** *Comment Status* **D** *AES*

The text "The AC component is up to 175 Vp at 20 Hz to 60 Hz with a 100 ohm source resistance." has not sufficient data in order to test the "shall" that follows this description.
The missing parts are:
- the cadence (depends on the national telephony standard)
-The test time duration (implementation specific, but we need to define some reasonable minimum for interoperability).

SuggestedRemedy

Change from: "The AC component is up to 175 Vp at 20 Hz to 60 Hz with a 100 ohm source resistance."
To:
"The AC component is up to 175 Vp at 20 Hz to 60 Hz with a 100 ohm source resistance with a cadence per the relevant national standard, for a test time duration greater than 5 minutes.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.