Cl **33** *SC* **33.1.4** *P* **21** *L* **50** # 139

Jones, Chad Cisco

Comment Type **T** *Comment Status* **D** *Cabling*

Maintenance Request #1271, on behalf of GEOFF THOMPSON, GRACASI S.A./LINEAR TECHNOLOGY

Move as much of the cabling specification to cabling documents as possible. (This RR was entered as a tracking mechanism for Thompson Comment #59 against P802.3REVbx/D2.0 during initial WG ballot. Resolution of this comment was given over to P802.3bt as they will have Cl 33 open.)

SuggestedRemedy

See attached sheet for proposed new text.
(http://www.ieee802.org/3/maint/requests/maint_1271.pdf, page 2)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

A number of these changes have already been adopted. The two remaining changes are:

Replacing the first sentence in 33.1.4 with:

"A power system, consists of a single PSE, a single PD and the link section connecting them. A power system is
characterized as Type 1 or Type 2 by lowest type number of the PSE or PD in the system, see Table 33–1."

and replacing the first paragraph of 33.1.4.1 with (as well as changing the title of the subclause to "Cabling requirements"):

"The supply of power over the data connection is intended to operate with no additional requirements to the cabling that is
normally installed for data usage. This is approximately true but may require some further attention. Power at Type 1
power levels may be transmitted over all specified premises cabling without further restrictions. Higher power levels may
require heavier gauge conductors than are found in Class C/Category 3 cabling and (more uncommonly) in some lighter
gauge Class D or better cable. The requirements for Type 2 are met by Category 5 or better cable and components as
specified in ANSI/TIA/EIA-568-A."

Cl **33** *SC* **33.3.1** *P* **64** *L* **53** # 142

Jones, Chad Cisco

Comment Type **T** *Comment Status* **D** *PD PI*

Maintenance Request #1274 on behalf of George Zimmerman, CME Consulting/LTC

Text in the existing standard is ambiguous and is inconsistent with terminations and usage commonly found in Ethernet equipment. The intent is to require PDs to be able to withstand application of common-mode PoE voltage. Application of 57V DC voltages in across the pins corresponding to the two pairs twisted differentially to form a balanced pair of the link segment would run a DC current across the transformer windings commonly found in BASE-T Ethernet equipment and burn them out.

SuggestedRemedy

Change: The PD shall withstand any voltage from 0 V to 57 V at the PI indefinitely without permanent damage.
To:The PD shall withstand any common-mode voltage from 0 V to 57 V applied to any two sets of two pins at the PI indefinitely without permanent damage. The two pins in each set shall correspond to the balanced twisted wire pairs of the connected link segment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

This should be clarified. Can we use the definition of pair-set make this simpler?