REQUESTED REVISION: next revision / bring into P802.3bt

STANDARD: 802.3-2015

CLAUSE NUMBER: 33

CLAUSE TITLE: Data Terminal Equipment (DTE) Power via Media Dependent Interface (MDI)

PROPOSED REVISION TEXT:
In subclause 33.6.3.3 (variables, DLL classification), change the "Values:0 through 255" to "Values 1 through 255" for the following:
- MirroredPDRequestedPowerValue
- MirroredPSEAllocatedPowerValue
- PDRequestedPowerValueEcho
- PDRequestedPowerValue (here change to "0 through PD_DLLMAX_VALUE")
- PSEAllocatedPowerValue
- PSEAllocatedPowerValueEcho

RATIONALE FOR REVISION:
In 802.3-2015, in Clause 79, the permitted value range for the PD requested power and PSE allocated power value fields ranged 1 to 255.

By mistake, in Clause 33 the permitted range started at zero. The value of zero is undefined in DLL.

In 802.3bt we are changing Clause 79 to permit value zero, this is required to support dual-signature power negotiation. However that, in combination with the current value ranges in 33.6.3.3 makes zero a legal value for legacy devices. Since this is undefined, we must prevent this. The proposed solution is to restrict the value range in 33.6.3.3.

In summary, we are moving a restriction from Clause 79 to 33.6.3.3, the net result is an identical permitted value range for legacy devices.

Via a regular 802.3bt comment I will add a pointer in Clause 79 that warns people that Type 1 and Type 2 devices have further restrictions on the fields PD requested power value and PSE allocated power value.

IMPACT ON EXISTING NETWORKS:
None.
Please attach supporting material, if any

Submit to:- David Law, Chair IEEE 802.3

and copy:- Adam Healey, Vice-Chair IEEE 802.3

At:-

E-Mail: stds-802-3-maint-req@ieee.org

------- For official 802.3 use -----------

REV REQ NUMBER: 1312
DATE RECEIVED: 9th Oct, 2017
EDITORIAL/TECHNICAL
ACCEPTED/DENIED
BALLOT REQ'D YES/NO
COMMENTS:

For information about this Revision Request see -

http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1312