

1 +-----+
2 | REVISION REQUEST |
3 +-----+

4 DATE:
5 NAME: Adee Ran
6 COMPANY/AFFILIATION: Cisco Systems
7 E-MAIL: aran@cisco.com
8

9 REQUESTED REVISION:
10 STANDARD: IEEE Std 802.3cr-2021
11 CLAUSE NUMBER: 70.9.1, 71.9.1, 72.9.1, 84.10.1, 93.10.1,
12 94.5.1, 130.9.1, 83A.6.1, and 83B
13 CLAUSE TITLE: General safety
14

15 PROPOSED REVISION TEXT:
16 Change "conform to the applicable requirements of Annex J" to "conform
17 to J.2" in all of the subclauses above.
18
19
20
21
22

23 RATIONALE FOR REVISION:
24 The clauses listed in this request define electrical backplane PHYs and
25 attachment unit interfaces, which are DC coupled on either the
26 transmitter, or the receiver, or both, with a nominal differential
27 impedance of 100 Ohm.
28

29 Annex J includes requirements for Electrical isolation (J.1) and General
30 safety (J.2). Most clauses point explicitly to either J.1 or J.2 or both.
31 The subclauses listed above state "applicable requirements of Annex J"
32 which may be interpreted as the entire Annex.
33

34 The isolation requirements of Annex J.1 (which was added by IEEE Std
35 802.3cr-2021 to replace an external reference to the withdrawn IEC
36 60950-1) are not applicable to these PHYs and interfaces. As stated in
37 comment #R1-17 against 802.3cr D3.1, the isolation tests specified in
38 J.1 (which expose the device under test to 1500 V or higher, either ac,
39 dc, or pulses) would likely cause permanent damage if applied to such
40 devices. In addition, the normative requirement "The resistance after the
41 test shall be at least 2 MΩ, measured at 500 V dc" is not met by such
42 devices even before the test is conducted.
43

44 The isolation requirement existed in IEC 60950-1 but were likely
45 considered inapplicable for these PHYs. The statement added by 802.3cr is
46 more explicit, and can mislead readers to believe these PHYs should
47 conform to isolation requirements, while the intent was to conform only
48 to safety requirements (J.2).
49
50
51
52
53

54 IMPACT ON EXISTING NETWORKS:
55 None expected; backplane PHYs have never met these requirements in the
56 first place.
57

```
1 +-----+
2 |Please attach supporting material, if any
3 |Submit to:- David Law, Chair IEEE 802.3
4 |and copy:- Adam Healey, Vice-Chair IEEE 802.3
5 |
6 |At:- E-Mail: stds-802-3-maint-req@ieee.org
7 |
8 | +----- For official use -----+
9 | | REV REQ NUMBER: 1384
10 | | DATE RECEIVED: 15 March 2021
11 | | EDITORIAL/TECHNICAL
12 | | ACCEPTED/DENIED
13 | | BALLOT REQ'D YES/NO
14 | | COMMENTS:
15 +-----+
16 | For information about this Revision Request see -
17 | http://www.ieee802.org/3/maint/requests/revision\_history.html#REQ1384
18 +-----+
```