

IEEE 802.3 Call for Interest Single-Pair Ethernet Powering Cabling Restrictions Opening Report

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CFI Request

- This is a call for interest to initiate a Study Group to develop a PAR and CSD to provide clarification on the cabling requirements for single-pair Ethernet powering.
- The IEEE 802.3WG's Power Delivery Coordinating Committee (PDCC) is working with other SDOs to avoid potential issues but has serious concerns about a currently proposed approach that an international cabling SDO has taken. In particular, the SDO is proposing to specify cabling at different current carrying capacities that do not support all the power classes that are presently defined in IEEE 802.3. This threatens the historic assumption that PoE is plug-and-play. It may be necessary to have additional information in IEEE Std 802.3 to provide guidance regarding the usage of such cabling. The PDCC meeting on Tuesday evening will provide a tutorial presentation on the proposed CFI.

Overview: Motivation

- ISO/IEC JTC1/SC25 WG3 has defined two compliant SPE cabling systems, one that supports a maximum of 750 mA and one that supports 2 A
- IEEE 802.3 has consistently asked for only 2A to avoid installation confusion
- A compromise was brokered to have keyed connectors to prevent 0.75 a channels being connected to 2 A systems. This compromise was abandoned at the meetings in May 2024.
- Changes are required to IEEE 802.3 to provide the necessary warnings to users to ensure they are using the proper cabling.

Logistics

- An overview presentation will be given during the PDCC ad hoc meeting:
 - Date – Tuesday, 16 July 2024
 - Time – 19:00-21:00 ET (23:00-01:00 UCT)
- CFI Presentation:
 - https://ieee802.org/3/cfi/request_0724_1.html

Request to form a Study Group will occur during the closing 802.3 WG Plenary, 18 July 2024

Questions?

Thank You!