P802.3da

Submitter Email:
Type of Project: Amendment to IEEE Standard 802.3-2018
Project Request Type: Initiation / Amendment
PAR Request Date:
PAR Approval Date:
PAR Expiration Date:
PAR Status: Draft
Root Project: 802.3-2018

1.1 Project Number: P802.3da
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Project Title: IEEE Standard for Ethernet
   Amendment: Physical Layer Specifications and Management Parameters for 10 Mb/s Operation over Single Balanced Pair Multidrop Enhancements

3.1 Working Group: Ethernet Working Group(C/LM/WG802.3)
   3.1.1 Contact Information for Working Group Chair:
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3.2 Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee(C/LM)
   3.2.1 Contact Information for Standards Committee Chair:
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE SA for Initial Standards Committee Ballot: Nov 2022
4.3 Projected Completion Date for Submittal to RevCom: Aug 2023

5.1 Approximate number of people expected to be actively involved in the development of this project: 30
5.2.a Scope of the complete standard: This standard defines Ethernet local area, access and metropolitan area networks. Ethernet is specified at selected speeds of operation; and uses a common media access control (MAC) specification and management information base (MIB). The Carrier Sense Multiple Access with Collision Detection (CSMA/CD) MAC protocol specifies shared medium (half duplex) operation, as well as full duplex operation. Speed specific Media Independent Interfaces (MIIs) provide an architectural and optional implementation interface to selected Physical Layer entities (PHY). The Physical Layer encodes frames for transmission and decodes received frames with the modulation specified for the speed of operation, transmission medium and supported link length. Other specified capabilities include: control and management protocols, and the provision of power over selected twisted pair PHY types.
5.2.b Scope of the project: Specify additions and modifications of the Physical Layer (including reconciliation sublayers), management parameters, Ethernet support for time synchronization protocols, and optional power delivery to enhance 10Mb/s multidrop single balanced pair networks

5.3 Is the completion of this standard contingent upon the completion of another standard? No
5.4 Purpose: This document will not include a purpose clause.
5.5 Need for the Project: Many applications in building, industrial, and transportation industries have begun the transition from legacy networks to Ethernet. A number of these applications require

enhancements to 10Mb/s multidrop single balanced pair networks, e.g., larger multidrop topologies, power delivery, TSSI (Time Synchronization Service Interface). These enhancements will increase the applications addressed by this technology.

5.6 Stakeholders for the Standard: End-users, vendors, system integrators, and providers of systems and components (e.g., sensors, actuators, instruments, controllers, elevator systems, HVAC systems, lighting systems, network infrastructure, security systems, user interfaces) for building (commercial and residential), industrial, and transportation (e.g. automotive, trains/trams) sectors.

6.1 Intellectual Property
    6.1.1 Is the Standards Committee aware of any copyright permissions needed for this project?
    No
    6.1.2 Is the Standards Committee aware of possible registration activity related to this project?
    No

7.1 Are there other standards or projects with a similar scope? No
7.2 Is it the intent to develop this document jointly with another organization? No

8.1 Additional Explanatory Notes :