# P802.3dx

**Type of Project:** Amendment to IEEE Standard 802.3-2022
**Project Request Type:** Initiation / Amendment
**PAR Request Date:**
**PAR Approval Date:**
**PAR Expiration Date:**
**PAR Status:** Draft
**Root Project:** 802.3-2022

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

**2.1 Project Title:** IEEE Standard for Ethernet  Amendment: Physical Layer Collision Avoidance (PLCA) Enhancements

**3.1 Working Group:** Ethernet Working Group(C/LAN/MAN/802.3 WG)
**3.1.1 Contact Information for Working Group Chair:**
**Name:** David Law
**Email Address:** david_law@ieee.org
**3.1.2 Contact Information for Working Group Vice Chair:**
**Name:** Adam Healey
**Email Address:** adam.healey@broadcom.com
**3.2 Society and Committee:** IEEE Computer Society/LAN/MAN Standards Committee(C/LAN/MAN)
**3.2.1 Contact Information for Standards Committee Chair:**
**Name:** James Gilb
**Email Address:** gilb_ieee@tuta.com
**3.2.2 Contact Information for Standards Committee Vice Chair:**
**Name:** David Halasz
**Email Address:** dave.halasz@ieee.org
**3.2.3 Contact Information for Standards Representative:**
**Name:** George Zimmerman
**Email Address:** george@cmephyconsulting.com

**4.1 Type of Ballot:** Individual
**4.2 Expected Date of submission of draft to the IEEE SA for Initial Standards Committee Ballot:** Sep 2028
**4.3 Projected Completion Date for Submittal to RevCom:** May 2029

**5.1 Approximate number of people expected to be actively involved in the development of this project:** 20
**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:** The scope of the project is to make additions and modifications to the IEEE Std 802.3 PLCA sublayers to enhance the control of PLCA packet transmission scheduling, including management parameters and physical layer service access points.

**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:** The current maximum latency properties of PLCA are insufficient to serve some control applications. Reduced maximum latency and enhanced determinism for some control applications are needed on some multidrop shared networks.
**5.6 Stakeholders for the Standard:** Providers of systems and components (e.g., processors, controllers,

stand-alone MACs, as well as Ethernet PHY chip and IP developers) for networked devices, vendors, system integrators, and end-users that benefit from further adoption of Ethernet.

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**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

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**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

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**8.1 Additional Explanatory Notes:**