P802.3dt

Type of Project: Amendment to IEEE Standard 802.3-2022
Project Request Type: Initiation / Amendment
PAR Request Date: 17 Nov 2025
PAR Approval Date: 12 Feb 2026
PAR Expiration Date: 31 Dec 2030
PAR Status: Active
Root Project: 802.3-2022

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

2.1 Project Title: IEEE Standard for Ethernet Amendment: Ethernet Metadata Services

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
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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
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3.2.3 Contact Information for Standards Representative:
Name: George Zimmerman
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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 2026
4.3 Projected Completion Date for Submittal to RevCom: Aug 2027

5.1 Approximate number of people expected to be actively involved in the development of this project: 40
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 the specification of additions and modifications to IEEE Std 802.3 to support the optional exchange of metadata through a physical layer service access point transferred: 1) in the preamble field of packets, or 2) in physical layer ordered sets, for MAC data rates greater than or equal to 50Gb/s, independent of packets.

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: Multiple industry groups outside of IEEE 802 are defining features, such as Link Level Retry (LLR) and Credit-based Flow Control (CBFC) defined by the Ultra Ethernet Consortium, that require per-packet and packet-independent metadata transfers which are currently not supported by IEEE Std 802.3. An amendment to IEEE Std 802.3 is needed to provide generic metadata transfer mechanisms

through a physical layer service access point.
5.6 Stakeholders for the Standard: Stakeholders include users and producers of systems and components for applications needing metadata support, such as networks and compute clusters for artificial intelligence (AI) data centers, industrial, and building automation.

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

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8.1 Additional Explanatory Notes: Item #2.1, 5.2.b, 5.5, 5.6: The term "metadata" is defined by Merriam-are:
1) Information about the data contained within a packet, or
2) Information about the Ethernet link and the data it is communicating.