P802.1DGei

Type of Project: Amendment to IEEE Standard 802.1DG-2025
Project Request Type: Initiation / Amendment
PAR Request Date:
PAR Approval Date:
PAR Expiration Date:
PAR Status: Draft
Root Project: 802.1DG-2025

1.1 Project Number: P802.1DGei
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Project Title: IEEE Standard for Local and metropolitan area networks - Time-Sensitive Networking Profile for Automotive In-Vehicle Ethernet Communications Amendment: Time Synchronization

3.1 Working Group: Higher Layer LAN Protocols Working Group(C/LAN/MAN/802.1 WG)
3.1.1 Contact Information for Working Group Chair:
Name: Glenn Parsons
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Name: Jessy Rouyer
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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
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3.2.2 Contact Information for Standards Committee Vice 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: Jul 2029
4.3 Projected Completion Date for Submittal to RevCom: Jul 2030

5.1 Approximate number of people expected to be actively involved in the development of this project: 25
5.2.a Scope of the complete standard: This standard specifies profiles for bounded latency automotive in-vehicle bridged IEEE 802.3 Ethernet networks based on IEEE 802.1 Time-Sensitive Networking (TSN) standards.
5.2.b Scope of the project: This amendment selects IEEE 802.1AS time synchronization options, defaults, and parameter values, and provides configuration guidelines and constraints for automotive in-vehicle bridged IEEE 802.3 Ethernet networks.

5.3 Is the completion of this standard contingent upon the completion of another standard? Yes
Explanation: This project will leverage IEEE P802.1ASeb IEEE Draft Standard for Local and Metropolitan Area Networks--Timing and Synchronization for Time-Sensitive Applications Amendment: Optional Use of Announce
5.4 Purpose: This standard provides profiles for designers and implementers of automotive IEEE 802.3 Ethernet networks that support a wide range of in-vehicle applications.
5.5 Need for the Project: IEEE 802.1DG allows multiple time synchronization mechanisms, including IEEE 802.1AS, other IEEE 1588 profiles, and other domain-specific solutions. There is a need to provide specific details on the use of IEEE 802.1AS for automotive in-vehicle networks. This will help achieve standardized, consistent, deterministic time synchronization behavior, ensure interoperable implementations across vendors, and facilitate integration and validation for time-sensitive applications in automotive in-vehicle networks.
5.6 Stakeholders for the Standard: Manufacturers, suppliers, and users of automotive Ethernet

equipment and components, including automotive manufacturers, suppliers, semiconductor vendors, network equipment vendors, tool and test vendors

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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

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: #5.2.b: IEEE Std 802.1AS IEEE Standard for Local and Metropolitan Area Networks -- Timing and Synchronization for Time-Sensitive Applications including amendments
IEEE Std 802.3 IEEE Standard for Ethernet
#5.5: IEEE Std 1588 IEEE Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems