P802.1AS

Type of Project: Revision to IEEE Standard 802.1AS-2020
Project Request Type: Modify / Revision
PAR Request Date:
PAR Approval Date:
PAR Expiration Date:
PAR Status: Draft
Root PAR: P802.1AS
Root PAR Approved on: 04 Jun 2023
Root PAR Expiration Date: 31 Dec 2027
Root Project: 802.1AS-2020

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

2.1 Project Title: Standard for Local and Metropolitan Area Networks--Timing and Synchronization for Time-Sensitive Applications

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: Nov 2025
4.3 Projected Completion Date for Submittal to RevCom: Jul 2026

5.1 Approximate number of people expected to be actively involved in the development of this project: 63
5.2 Scope of proposed standard: This standard specifies protocols, procedures, and managed objects to meet the synchronization requirements for time-sensitive applications, such as audio, video, and time-sensitive control, across networks, for example, IEEE 802 and similar media. This includes the maintenance of synchronized time during normal operation and following addition, removal, or failure of network components and network reconfiguration. It specifies the use of IEEE Std 1588(TM) where applicable in the context of IEEE Std 802.1Q(TM). Synchronization to an externally provided timing signal [e.g., a recognized timing standard such as Coordinated Universal Time (UTC) or International Atomic Time (TAI)] is not part of this standard but is not precluded.
Change to scope of proposed standard: This standard specifies protocols, procedures, and managed objects ~~used~~ to ~~ensure that~~ meet the synchronization requirements ~~are met~~ for time-sensitive applications, such as audio, video, and time-sensitive control, across networks, for example, IEEE 802 and similar media. This includes the maintenance of synchronized time during normal operation and following addition, removal, or failure of network components and network reconfiguration. It specifies the use of IEEE Std 1588(TM) ~~specifications~~ where applicable in the context of IEEE Std 802.1Q(TM). Synchronization to an externally provided timing signal [e.g., a recognized timing standard such as Coordinated Universal Time (UTC) or International Atomic Time (TAI)] is not part of this standard but is not precluded.

5.3 Is the completion of this standard contingent upon the completion of another standard? No
~~Yes~~ **Explanation:** ~~This is a maintenance roll-up of IEEE Std 802.1AS-2020 with the corrigendum IEEE Std 802.1AS-2020/Cor1 and amendment IEEE Std 802.1ASdr. Depending on their progress to approval, other amendments and corrigenda in progress may also be included.~~

5.4 Purpose: This standard enables systems to meet the respective jitter, wander, and time-synchronization requirements for time-sensitive applications, including those that involve multiple streams delivered to multiple end stations. To facilitate the widespread use of packet networks for these applications, synchronization information is one of the components needed at each network element where time-sensitive application data are mapped or demapped or a time-sensitive function is performed. This standard leverages the work of the IEEE 1588 Working Group by developing the additional specifications needed to address these requirements.

5.5 Need for the Project: This revision project is needed in order to incorporate approved amendments and corrigenda, to incorporate technical and editorial corrections to existing functionality, and to maintain consistency in the consolidated text.

Change to Need for the Project: This revision project is needed in order to incorporate approved amendments and corrigenda, to incorporate technical and editorial corrections to existing functionality, and to ~~ensure that~~ maintain consistency ~~is maintained~~ in the consolidated text.

5.6 Stakeholders for the Standard: Developers, manufacturers, distributors, or users of time-sensitive applications, components, and equipment.

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:

5.2: IEEE Std 1588-2019 - IEEE Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems

5.2: IEEE Std 802.1Q-2022 - IEEE Standard for Local and Metropolitan Area Networks–Bridges and Bridged Networks

Change to Additional Explanatory Notes: ~~IEEE Std 802.1AS-2020/Cor1 - Timing and Synchronization for Time-Sensitive Applications–Corrigendum 1: Technical and Editorial Corrections P802~~ IEEE 802 .1ASdr ~~- 2024 - Timing and Synchronization for Time-Sensitive Applications Amendment: Inclusive Terminology~~5.2: IEEE Std 1588-2019 - IEEE Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems 5.2: IEEE Std 802.1Q-2022 - IEEE Standard for Local and Metropolitan Area Networks–Bridges and Bridged Networks