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Information technology — Telecommunications and information exchange between systems — Local and metropolitan area networks —

Part 1AS:

**Timing and synchronization for time-
sensitive applications in bridged local
area networks**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Réseaux locaux et métropolitains —
Partie 1AS: Temporisation et synchronisation pour les applications
sensibles au temps des réseaux locaux pontés*

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IEEE Std 802.1AS™-2020
(Revision of IEEE Std 802.1AS-2011)

IEEE Standard for Local and Metropolitan Area Networks— Timing and Synchronization for Time-Sensitive Applications

Developed by the

**LAN/MAN Standards Committee
of the
IEEE Computer Society**

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Approved 30 January 2020

IEEE SA Standards Board

Abstract: Protocols, procedures, and managed objects for the transport of timing over local area networks are defined in this standard. It includes the transport of synchronized time, the selection of the timing source (i.e., best master), and the indication of the occurrence and magnitude of timing impairments (i.e., phase and frequency discontinuities).

Keywords: best master, frequency offset, Grandmaster Clock, Grandmaster PTP Instance, PTP End Instance, PTP Relay Instance, IEEE 802.1AS™, phase offset, synchronization, syntonization, time-aware system

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Introduction

This introduction is not part of IEEE Std 802.1AS-2020, IEEE Standard for Local and Metropolitan Area Networks—Timing and Synchronization for Time-Sensitive Applications.

This standard contains state-of-the-art material. The area covered by this standard is undergoing evolution. Revisions are anticipated within the next few years to clarify existing material, to correct possible errors, and to incorporate new related material. Information on the current revision state of this and other IEEE 802[®] standards may be obtained from

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