

P802.1AS

This PAR is valid until 31-Dec-2019. The original PAR was approved on 16-Feb-2015, modified on 28-Sep-2017.

PAR Extension Request Date: 08-Jul-2019

Extension Request Submitter Email: j.l.messenger@ieee.org

Number of Previous Extensions Requested: 0

1. Number of years that the extension is being requested: 2

2. Why an Extension is Required (include actions to complete): This revision is in active development, but is unlikely to complete before the PAR expires.

802.1AS-Rev has completed its initial SA ballot and comment resolution is in progress. Remaining tasks include SA recirculation balloting and submission to RevCom.

3.1. What date did you begin writing the first draft: 01-Apr-2015

3.2. How many people are actively working on the project: 20

3.3. How many times a year does the working group meet?

In person: 6

Via teleconference: 40

3.4. How many times a year is a draft circulated to the working group: 3

3.5. What percentage of the Draft is stable: 95%

3.6. How many significant work revisions has the Draft been through: 10

4. When will/did initial sponsor balloting begin: 01-Jan-2019

When do you expect to submit the proposed standard to RevCom: 01-Feb-2020

Has this document already been adopted by another source? (if so please identify): No

For an extension request, the information on the original PAR below is not open to modification.

Submitter Email: glenn.parsons@ericsson.com

Type of Project: Modify Existing Approved PAR

PAR Request Date: 18-Jul-2017

PAR Approval Date: 28-Sep-2017

PAR Expiration Date: 31-Dec-2019

Status: Modification to a Previously Approved PAR for the Revision of a Standard

Root PAR: P802.1AS **Approved on:** 16-Feb-2015

1.1 Project Number: P802.1AS

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 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/LM/WG802.1)

Contact Information for Working Group Chair

Name: John Messenger

Email Address: j.l.messenger@ieee.org

Phone: +441904699309

Contact Information for Working Group Vice-Chair

Name: Jessy Rouyer

Email Address: jessy.rouyer@nokia.com

Phone: +1 469 661 2093

3.2 Sponsoring Society and Committee: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

Contact Information for Sponsor Chair

Name: Paul Nikolich

Email Address: p.nikolich@ieee.org

Phone: 8572050050

Contact Information for Standards Representative

Name: James Gilb

Email Address: gilb@ieee.org

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 03/2019

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2019

5.1 Approximate number of people expected to be actively involved in the development of this project: 25

5.2 Scope: This standard specifies the protocol, procedures, and managed objects used to ensure that 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 specifications where applicable in the context of IEEE Std 802.1Q. Synchronization to an externally provided timing signal (e.g., a recognized timing standard such as UTC or TAI) is not part of this standard but is not precluded.

Changes in scope: This standard specifies the protocol, ~~procedures,~~ and ~~procedures~~ managed objects used to ensure that 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 specifications where applicable in the context of IEEE Std 802.1Q. Synchronization to an externally provided timing signal (e.g., a recognized timing standard such as UTC or TAI) is not part of this standard but is not precluded.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: This standard enables stations attached to bridged LANs to meet the respective jitter, wander, and time synchronization requirements for time-sensitive applications. This includes applications that involve multiple streams delivered to multiple endpoints. To facilitate the widespread use of bridged LANs 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: The use of current IEEE 802 technologies for time-sensitive applications, such as high-quality audio/video streaming or industrial control, does not assure that the applications can present data with acceptable jitter, wander, and deviation in time. This includes applications that involve multiple streams delivered to multiple endpoints. To facilitate the widespread use of bridged LANs 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. The synchronization information provided to each network element will allow the jitter, wander, and time synchronization requirements of demanding applications, such as in a residential environment, to be met. Existing time synchronization standards, IEEE Std 1588-2002 and IETF Request for Comments: 1305 (Network Time Protocol), because they operate at layer 3, impose unacceptable operational complexity and implementation costs on a developer of time-sensitive applications. This standard will leverage the work of the IEEE 1588 WG to develop the additional specifications needed to address these requirements.

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

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: Yes

If yes please explain: RAC review of previously reviewed text is appropriate to assure terminology and descriptions of usage are correct; as well as review of expected text changes related to existing descriptions of deprecated EUI-48 to EUI-64 mapping.

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes: #5.2:

"managed objects" has been added

IEEE Std 802.1Q, IEEE Standard for Local and metropolitan area networks - Bridges and Bridged Networks

IEEE Std 1588, IEEE Standard for a Precision Clock Synchronization Protocol for Network Measurement and Control Systems

UTC - Coordinated Universal Time

TAI - International Atomic Time

#6.1.b: Changed to "yes" and explanation added