

P802.1CBec

Type of Project: Amendment to IEEE Standard 802.1CB-2017

Project Request Type: Modify / Amendment

PAR Request Date:

PAR Approval Date:

PAR Expiration Date:

PAR Status: Draft

Root PAR: P802.1CBec

Root PAR Approved on: 12 Feb 2025

Root PAR Expiration Date: 31 Dec 2029

Root Project: 802.1CB-2017

1.1 Project Number: P802.1CBec

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Project Title: IEEE Standard for Local and metropolitan area networks--Frame Replication and Elimination for Reliability Amendment: Sequence Recovery Function Refinements and Parameter Configuration

Change to Title: IEEE Standard for Local and metropolitan area networks--Frame Replication and Elimination for Reliability ~~Amendment: Guidance for~~ Amendment: Sequence Recovery Function Refinements and Parameter Configuration

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

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:

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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 2027

4.3 Projected Completion Date for Submittal to RevCom: Jul 2028

5.1 Approximate number of people expected to be actively involved in the development of this project: 30

5.2.a Scope of the complete standard: This standard specifies procedures, managed objects, and protocols for bridges and end systems that provide identification and replication of packets for redundant transmission, identification of duplicate packets, and elimination of duplicate packets. It is not concerned with the creation of the multiple paths over which the duplicates are transmitted.

5.2.b Scope of the project: This amendment adds an informative annex describing recommended values for the existing sequence recovery function parameters, and provides guidance regarding frame buffering in relay and end systems to assist in the usage of Frame Replication and Elimination for Reliability. This amendment revises the sequence recovery function. This amendment also includes technical and editorial corrections in the description of existing IEEE Std 802.1CB functionality.

Change to scope of the project: This amendment adds an informative annex describing recommended values for the existing sequence recovery function parameters, and provides guidance regarding frame buffering in relay and end systems to assist in the usage of Frame Replication and Elimination for

Reliability. This amendment revises the sequence recovery function. This amendment also includes technical and editorial corrections in the description of existing IEEE Std 802.1CB functionality.

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: The sequence recovery function specified in the base standard eliminates duplicate frames and forwards non-duplicate frames. Some revision of the sequence recovery function is needed to address recent learnings about its application and operation. Furthermore, inappropriate setting of parameter values and buffer dimensioning could lead to duplicates being passed and unintentional frame elimination. This amendment adds an informative annex providing guidance to avoid this unwanted behavior.

Change to Need for the Project: The sequence recovery function specified in the base standard eliminates duplicate frames and forwards non-duplicate frames. ~~Inappropriate~~ Some revision of the sequence recovery function is needed to address recent learnings about its application and operation. Furthermore, inappropriate setting of parameter values and buffer dimensioning could lead to duplicates being passed and unintentional frame elimination. This amendment adds an informative annex ~~provides~~ providing guidance to avoid this unwanted behavior.

5.6 Stakeholders for the Standard: Developers, providers, and users of networking services and equipment for Industrial Automation, In-vehicle networking, Professional Audio-Video (AV) and other systems requiring high availability traffic, including networking integrated circuit (IC) developers, bridge and network interface card (NIC) vendors, and users.

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

8.1 Additional Explanatory Notes: