International Standard

ISO/IEC/IEEE 8802-1CS

First edition
2022-07

TECHNICAL CORRIGENDUM 1

Telecommunications and exchange between information technology systems — Requirements for local and metropolitan area networks —

Part 1CS: Link-local registration protocol

TECHNICAL CORRIGENDUM 1: Corrections to management modules and protocol encoding

Reference number
ISO/IEC/IEEE 8802-1CS:2022/Cor.1:2025(en)

© IEEE 2024

Documents
Document Sharing Hub
Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025



COPYRIGHT PROTECTED DOCUMENT

© IEEE 2024

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from IEEE at the address below.

Institute of Electrical and Electronics Engineers, Inc
3 Park Avenue, New York
NY 10016-5997, USA

Email: stds.ipr@ieee.org
Website: www.ieee.org

Published in Switzerland

© IEEE 2024 – All rights reserved

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

IEEE Std 802.1CS™-2020/Cor 1-2024
(Corrigendum to IEEE Std 802.1CS-2020)

IEEE Standard for Local and Metropolitan Area Networks—

Link-local Registration Protocol

Corrigendum 1: Corrections to Management Modules and Protocol Encoding

Developed by the

LAN/MAN Standards Committee
of the
IEEE Computer Society

Approved 15 February 2024

IEEE SA Standards Board

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

Abstract: This corrigendum corrects errors in the YANG module, SNMP MIBs, and TLV encoding in IEEE Std 802.1CS-2020.

Keywords: Bridged Local Area Networks, Bridges, bridging, IEEE 802®, IEEE 802.1CS™, IEEE 802.1Q™, Link-local Registration Protocol, local area networks (LANs), LRP, MAC Bridges, Time-Sensitive Networking, TSN, Virtual Bridged Local Area Networks (virtual LANs)

The Institute of Electrical and Electronics Engineers, Inc.
3 Park Avenue, New York, NY 10016-5997, USA

Copyright © 2024 by the Institute of Electrical and Electronics Engineers, Inc.
All rights reserved. Published 12 April 2024. Printed in the United States of America.

IEEE and 802 are registered trademarks in the U.S. Patent & Trademark Office, owned by the Institute of Electrical and Electronics Engineers, Incorporated.

PDF: ISBN 979-8-8557-0580-5 STD26823

IEEE prohibits discrimination, harassment, and bullying.
For more information, visit http://www.ieee.org/web/aboutus/whatis/policies/p9-26.html.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

Important Notices and Disclaimers Concerning IEEE Standards Documents

IEEE Standards documents are made available for use subject to important notices and legal disclaimers. These notices and disclaimers, or a reference to this page (https://standards.ieee.org/ipr/disclaimers.html), appear in all standards and may be found under the heading "Important Notices and Disclaimers Concerning IEEE Standards Documents."

Notice and Disclaimer of Liability Concerning the Use of IEEE Standards Documents

IEEE Standards documents are developed within IEEE Societies and subcommittees of IEEE Standards Association (IEEE SA) Board of Governors. IEEE develops its standards through an accredited consensus development process, which brings together volunteers representing varied viewpoints and interests to achieve the final product. IEEE standards are documents developed by volunteers with scientific, academic, and industry-based expertise in technical working groups. Volunteers are not necessarily members of IEEE or IEEE SA and participate without compensation from IEEE. While IEEE administers the process and establishes rules to promote fairness in the consensus development process, IEEE does not independently evaluate, test, or verify the accuracy of any of the information or the soundness of any judgments contained in its standards.

IEEE makes no warranties or representations concerning its standards, and expressly disclaims all warranties, express or implied, concerning this standard, including but not limited to the warranties of merchantability, fitness for a particular purpose and non-infringement. IEEE Standards documents do not guarantee safety, security, health, or environmental protection, or guarantee against interference with or from other devices or networks. In addition, IEEE does not warrant or represent that the use of the material contained in its standards is free from patent infringement. IEEE Standards documents are supplied "AS IS" and "WITH ALL FAULTS."

Use of an IEEE standard is wholly voluntary. The existence of an IEEE standard does not imply that there are no other ways to produce, test, measure, purchase, market, or provide other goods and services related to the scope of the IEEE standard. Furthermore, the viewpoint expressed at the time a standard is approved and issued is subject to change brought about through developments in the state of the art and comments received from users of the standard.

In publishing and making its standards available, IEEE is not suggesting or rendering professional or other services for, or on behalf of, any person or entity, nor is IEEE undertaking to perform any duty owed by any other person or entity to another. Any person utilizing any IEEE Standards document, should rely upon their own independent judgment in the exercise of reasonable care in any given circumstances or, as appropriate, seek the advice of a competent professional in determining the appropriateness of a given IEEE standard.

IN NO EVENT SHALL IEEE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO: THE NEED TO PROCURE SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE PUBLICATION, USE OF, OR RELIANCE UPON ANY STANDARD, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE AND REGARDLESS OF WHETHER SUCH DAMAGE WAS FORESEEABLE.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

Translations

The IEEE consensus balloting process involves the review of documents in English only. In the event that an IEEE standard is translated, only the English version published by IEEE is the approved IEEE standard.

Official statements

A statement, written or oral, that is not processed in accordance with the IEEE SA Standards Board Operations Manual shall not be considered or inferred to be the official position of IEEE or any of its committees and shall not be considered to be, nor be relied upon as, a formal position of IEEE. At lectures, symposia, seminars, or educational courses, an individual presenting information on IEEE standards shall make it clear that the presenter's views should be considered the personal views of that individual rather than the formal position of IEEE, IEEE SA, the Standards Committee, or the Working Group. Statements made by volunteers may not represent the formal position of their employer(s) or affiliation(s).

Comments on standards

Comments for revision of IEEE Standards documents are welcome from any interested party, regardless of membership affiliation with IEEE or IEEE SA. However, **IEEE does not provide interpretations, consulting information, or advice pertaining to IEEE Standards documents**.

Suggestions for changes in documents should be in the form of a proposed change of text, together with appropriate supporting comments. Since IEEE standards represent a consensus of concerned interests, it is important that any responses to comments and questions also receive the concurrence of a balance of interests. For this reason, IEEE and the members of its Societies and subcommittees of the IEEE SA Board of Governors are not able to provide an instant response to comments, or questions except in those cases where the matter has previously been addressed. For the same reason, IEEE does not respond to interpretation requests. Any person who would like to participate in evaluating comments or in revisions to an IEEE standard is welcome to join the relevant IEEE working group. You can indicate interest in a working group using the Interests tab in the Manage Profile & Interests area of the IEEE SA myProject system.[1] An IEEE Account is needed to access the application.

Comments on standards should be submitted using the Contact Us form.[2]

Laws and regulations

Users of IEEE Standards documents should consult all applicable laws and regulations. Compliance with the provisions of any IEEE Standards document does not constitute compliance to any applicable regulatory requirements. Implementers of the standard are responsible for observing or referring to the applicable regulatory requirements. IEEE does not, by the publication of its standards, intend to urge action that is not in compliance with applicable laws, and these documents may not be construed as doing so.

Data privacy

Users of IEEE Standards documents should evaluate the standards for considerations of data privacy and data ownership in the context of assessing and using the standards in compliance with applicable laws and regulations.

[1] Available at: https://development.standards.ieee.org/myproject-web/public/view.html#landing.

[2] Available at: https://standards.ieee.org/content/ieee-standards/en/about/contact/index.html.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

Copyrights

IEEE draft and approved standards are copyrighted by IEEE under U.S. and international copyright laws. They are made available by IEEE and are adopted for a wide variety of both public and private uses. These include both use, by reference, in laws and regulations, and use in private self-regulation, standardization, and the promotion of engineering practices and methods. By making these documents available for use and adoption by public authorities and private users, neither IEEE nor its licensors waive any rights in copyright to the documents.

Photocopies

Subject to payment of the appropriate licensing fees, IEEE will grant users a limited, non-exclusive license to photocopy portions of any individual standard for company or organizational internal use or individual, non-commercial use only. To arrange for payment of licensing fees, please contact Copyright Clearance Center, Customer Service, 222 Rosewood Drive, Danvers, MA 01923 USA; +1 978 750 8400; https://www.copyright.com/. Permission to photocopy portions of any individual standard for educational classroom use can also be obtained through the Copyright Clearance Center.

Updating of IEEE Standards documents

Users of IEEE Standards documents should be aware that these documents may be superseded at any time by the issuance of new editions or may be amended from time to time through the issuance of amendments, corrigenda, or errata. An official IEEE document at any point in time consists of the current edition of the document together with any amendments, corrigenda, or errata then in effect.

Every IEEE standard is subjected to review at least every 10 years. When a document is more than 10 years old and has not undergone a revision process, it is reasonable to conclude that its contents, although still of some value, do not wholly reflect the present state of the art. Users are cautioned to check to determine that they have the latest edition of any IEEE standard.

In order to determine whether a given document is the current edition and whether it has been amended through the issuance of amendments, corrigenda, or errata, visit IEEE Xplore or contact IEEE.[3] For more information about the IEEE SA or IEEE's standards development process, visit the IEEE SA Website.

Errata

Errata, if any, for all IEEE standards can be accessed on the IEEE SA Website.[4] Search for standard number and year of approval to access the web page of the published standard. Errata links are located under the Additional Resources Details section. Errata are also available in IEEE Xplore. Users are encouraged to periodically check for errata.

Patents

IEEE standards are developed in compliance with the IEEE SA Patent Policy.[5]

Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken by the IEEE with respect to the existence or validity of any patent rights in connection therewith. If a patent holder or patent applicant has

[3] Available at: https://ieeexplore.ieee.org/browse/standards/collection/ieee.

[4] Available at: https://standards.ieee.org/standard/index.html.

[5] Available at: https://standards.ieee.org/about/sasb/patcom/materials.html.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

filed a statement of assurance via an Accepted Letter of Assurance, then the statement is listed on the IEEE SA Website at https://standards.ieee.org/about/sasb/patcom/patents.html. Letters of Assurance may indicate whether the Submitter is willing or unwilling to grant licenses under patent rights without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination to applicants desiring to obtain such licenses.

Essential Patent Claims may exist for which a Letter of Assurance has not been received. The IEEE is not responsible for identifying Essential Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims, or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of this standard are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information may be obtained from the IEEE Standards Association.

IMPORTANT NOTICE

Technologies, application of technologies, and recommended procedures in various industries evolve over time. The IEEE standards development process allows participants to review developments in industries, technologies, and practices, and to determine what, if any, updates should be made to the IEEE standard. During this evolution, the technologies and recommendations in IEEE standards may be implemented in ways not foreseen during the standard's development. IEEE standards development activities consider research and information presented to the standards development group in developing any safety recommendations. Other information about safety practices, changes in technology or technology implementation, or impact by peripheral systems also may be pertinent to safety considerations during implementation of the standard. Implementers and users of IEEE Standards documents are responsible for determining and complying with all appropriate safety, security, environmental, health, and interference protection practices and all applicable laws and regulations.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

Participants

At the time this standard was submitted to the IEEE SA Standards Board for approval, the IEEE 802.1 Working Group had the following membership:

Glenn Parsons, *Chair*
Jessy V. Rouyer, *Vice Chair*
János Farkas, *TSN Task Group Chair*
Norman Finn, *Editor*

Katsuyuki Akizuki
Konstantinos Alexandris
Venkat Arunarthi
Ralf Assmann
Huajie Bao
Rudy Belliardi
Jeremias Blendin
Christian Boiger
Paul Bottorff
Radhakrishna Canchi
Feng Chen
Abhijit Choudhury
Paul Congdon
Rodney Cummings
Josef Dorr
Hesham Elbakoury
Anna Engelmann
Thomas Enzinger
Donald Fedyk
Geoffrey Garner
Craig Gunther
Marina Gutierrez
Stephen Haddock
Mark Hantel
Marc Holness
Daniel Hopf
Woojung Huh
Satoko Itaya
Yoshihiro Ito
Michael Karl
Stephan Kehrer
Marcel Kiessling
Gavin Lai
Yizhou Li
Joao Lopes
Lily Lyu
Christophe Mangin
Scott Mansfield
Olaf Mater
David McCall
Larry McMillan
Martin Mittelberger
Hiroki Nakano
Takumi Nomura
Donald R. Pannell
Dieter Proell
Karen Randall
Maximilian Riegel
Silvana Rodrigues
Atsushi Sato
Frank Schewe
Michael Seaman
Maik Seewald
Ramesh Sivakolundu
Johannes Specht
Nemanja Stamenic
Marius Stanica
Guenter Steindl
Karim Traore
Max Turner
Balazs Varga
Ganesh Venkatesan
Tongtong Wang
Karl Weber
Leon Wessels
Ludwig Winkel
Jordon Woods
Takahiro Yamaura
Nader Zein

The following members of the individual balloting committee voted on this standard. Balloters may have voted for approval, disapproval, or abstention.

Boon Chong Ang
Butch Anton
Christian Boiger
Vern Brethour
William Byrd
Paul Cardinal
Pin Chang
David Chen
Razvan Ciocan
Rodney Cummings
János Farkas
Donald Fedyk
Norman Finn
Craig Gunther
Stephen Haddock
Marco Hernandez
Werner Hoelzl
Raj Jain
Pranav Jha
Lokesh Kabra
Ruslan Karmanov
Piotr Karocki
Stephan Kehrer
Stuart Kerry
Yongbum Kim
Jeff Koftinoff
Hyeong Ho Lee
Christophe Mangin
Scott Mansfield
William Rogelio Marchand Nino
Jonathon McLendon
Rajesh Murthy
Satoshi Obara
Glenn Parsons
Bansi Patel
Arumugam Paventhan
Cam Posani
Venkatesha Prasad
Dieter Proell
R. K. Rannow
Maximilian Riegel
Benjamin Rolfe
Jessy V. Rouyer
Frank Schewe
Reinhard Schrage
Jhony Sembiring
Walter Struppler
Max Turner
John Vergis
Stephen Webb
Scott Willy
Ludwig Winkel
Andreas Wolf
Yu Yuan
Oren Yuen

Copyright © 2024 IEEE. All rights reserved.
Documents
Document Sharing Hub
Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.
Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

When the IEEE SA Standards Board approved this standard on 15 February 2024, it had the following membership:

David J. Law, *Chair*
Vacant Position, *Vice Chair*
Gary Hoffman, *Past Chair*
Alpesh Shah, *Secretary*

Sara R. Biyabani
Ted Burse
Stephen Dukes
Doug Edwards
J. Travis Griffith
Guido R. Hiertz
Ronald W. Hotchkiss
Hao Hu
Yousef Kimiagar
Joseph L. Koepfinger*
Howard Li
Xiaohui Liu
John Haiying Lu
Kevin W. Lu
Hiroshi Mano
Paul Nikolich
Robby Robson
Jon W. Rosdahl
Mark Siira
Lei Wang
F. Keith Waters
Sha Wei
Philip B. Winston
Don Wright

*Member Emeritus

Copyright © 2024 IEEE. All rights reserved.
Documents
Document Sharing Hub
Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.
Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

Introduction

This introduction is not part of IEEE Std 802.1CS-2020/Cor 1-2024, IEEE Standard for Local and Metropolitan Area Networks—Link-local Registration Protocol—Corrigendum 1: Corrections to Management Modules and Protocol Encoding.

This corrigendum to IEEE Std 802.1CS-2020 corrects errors in the YANG module, SNMP MIBs, and TLV encoding.

Copyright © 2024 IEEE. All rights reserved.
Documents
Document Sharing Hub
Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.
Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

Contents

1. Overview ... 12

1.1 Scope ... 12

6. Link-local Registration Protocol ... 13

6.3 Objectives and non-objectives ... 13
6.3.1 Objectives of LRP ... 13

12. YANG models for LRP ... 14

12.2 The YANG framework ... 14
12.6 Definition of LRP YANG module, ... 14

13. MIB modules for LRP ... 22

13.5 MIB modules, ... 22
13.5.1 LRP Textual conventions MIB ... 22
13.5.2 LRP MIB ... 24
13.5.3 LLDPv2 LRP extension MIB ... 36

Annex C (normative) IEEE 802.1 Organizationally Specific TLVs for LLDP ... 54

C.2 Organizationally Specific TLV definitions ... 54
C.2.2 LRP TCP Discovery TLV ... 54

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

IEEE Standard for Local and Metropolitan Area Networks—

Link-local Registration Protocol

Corrigendum 1: Corrections to Management Modules and Protocol Encoding

(This corrigendum is based on IEEE Std 802.1CS-2020.)

NOTE—The editing instructions contained in this corrigendum define how to merge the material contained therein into the existing base standard and its amendments to form the comprehensive standard.

The editing instructions are shown in ***bold italic***. Four editing instructions are used: change, delete, insert, and replace. ***Change*** is used to make corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by using ~~strikethrough~~ (to remove old material) and underscore (to add new material). ***Delete*** removes existing material. ***Insert*** adds new material without disturbing the existing material. Deletions and insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. ***Replace*** is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editing instructions, change markings, and this NOTE will not be carried over into future editions because the changes will be incorporated into the base standard.[6]

[6] Notes in text, tables, and figures are given for information only and do not contain requirements needed to implement the standard.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

Change the Abstract as follows:

Abstract: This standard specifies protocols, procedures, and managed objects for a Link-local Registration Protocol (LRP) to replicate a registration database from one end to the other of a point-to-point link and to replicate changes to parts of that database. A facility is provided to purge the replicated database if the source becomes unresponsive. LRP is optimized for databases on the order of ~~1 Mbyte~~ a million bytes.

1. Overview

1.1 Scope

Change 1.1 as follows:

This standard specifies protocols, procedures, and managed objects for a Link-local Registration Protocol (LRP) to replicate a registration database from one end to the other of a point-to-point link and to replicate changes to parts of that database. A facility is provided to purge the replicated database if the source becomes unresponsive. Provision is made for a proxy system to operate LRP on behalf of a controlled system. LRP is optimized for databases on the order of ~~1 Mbyte~~ a million bytes.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

6. Link-local Registration Protocol

6.3 Objectives and non-objectives

6.3.1 Objectives of LRP

Change 6.3.1 as follows:

The objectives of LRP are to:

a) Serve application instances as described in 6.2.
b) Remain independent of the syntax and semantics of the LRP application data contained in the applicant and registrar databases.
c) Provide a facility for an application instance to discover its peers, and to make and break associations between application instances.
d) Support multiple options for the transport mechanisms used to carry LRPDUs, in order to provide a range of capability/complexity trade-offs.
e) Transfer the application instances' data quickly, reliably, and efficiently with respect to bandwidth.
f) Efficiently transfer changes to parts of a database, without retransmitting the whole database.
g) Serve applicant and registrar databases whose size, per port, is on the order of magnitude of ~~1 Mbyte~~a million bytes.
h) Support only point-to-point associations between application instances.
i) Support multiple point-to-point associations on one port.
j) By the use of TCP as an LRP-DT transport mechanism, provide for placing the application instance and Portal in a separate Proxy system from its target port, in order to facilitate central control of a network.
k) Support proxying for a Controlled system without requiring any new behaviors of the Controlled system, in order to make it possible to deploy a new LRP application without implementing an application instance in every system.
l) Make efficient use of TCP connections.
m) Support resource-constrained end systems.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

12. YANG models for LRP

12.2 The YANG framework

Change 12.2 as follows:

This clause has been developed according to the YANG guidelines published in IETF RFC 6087 [B13] as applicable to IEEE standards. The YANG framework applies hierarchy in the following areas:

1) The uniform resource name (URN), as specified in IEEE Std 802d™ [B2]. ~~The structure of the URN is such that "ieee" is the root (i.e., name-space identifier), followed by the standard, then the working group developing the standard.~~
2) The YANG objects form a hierarchy of configuration and operational data structures that define the YANG model. These hierarchical relationships are described in 11.2 and 12.5.

12.6 Definition of LRP YANG module[7, 8]

Delete the YANG module in 12.6.

Insert the following YANG module in 12.6:

```
module ieee802-dot1cs-lrp {
  yang-version 1.1;

  namespace "urn:ieee:std:802.1CS:yang:ieee802-dot1cs-lrp";
  prefix "dot1cs";

  import ietf-system { prefix "sys"; }
  import ietf-yang-types { prefix "yang"; }
  import ietf-interfaces { prefix if; }
  import ieee802-types { prefix ieee; }
  import ietf-inet-types { prefix inet; }

  organization
    "Institute of Electrical and Electronics Engineers";
  contact
    "WG-URL: http://ieee802.org/1/
     WG-EMail: stds-802-1-l@ieee.org
       Contact: IEEE 802.1 Working Group Chair
       Postal: C/O IEEE 802.1 Working Group
       IEEE Standards Association
            445 Hoes Lane
            Piscataway
            NJ 08854
            USA

    E-mail: stds-802-1-chairs@ieee.org";

  description
    "This module provides management of systems that support the
    Link-local Registration Protocol (LRP).

    Copyright (C) IEEE (2024).

    This version of this YANG module is part of IEEE Std 802.1CS;
    see the standard itself for full legal notices.";

  revision 2024-02-15 {
    description
```

[7]Copyright release for YANG module: Users of this standard may freely reproduce the YANG module contained in this subclause so that they can be used for their intended purpose.

[8]An ASCII version of each YANG module is attached to the PDF of this amendment and can also be obtained from the IEEE 802.1 Website at https://1.ieee802.org/yang-modules/.

Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

```
    "Published as part of IEEE Std 802.1CS-2020/Cor 1-2024.

    The following reference statement identifies each referenced
    IEEE Standard as updated by applicable amendments.";

  reference
    "IEEE Std 802.1CS:
    IEEE Std 802.1CS-2020 Link-local Registration Protocol,
    IEEE Std 802.1CS-2020/Cor 1-2024: Corrections to
    Management Modules and Protocol Encoding.";
}

 revision 2020-12-03 {
  description
    "First defined in IEEE P802.1CS-2020";
  reference
    "IEEE Std 802.1CS-2020.";
}
/*--------------------*/
/* Feature            */
/*--------------------*/

feature lrp {
  description
    "Feature Link-local Registration Protocol";
}

/*--------------------*/
/* Type Definitions   */
/*--------------------*/
typedef lrp-dt-address-union {
  type union {
    type ieee:mac-address;
    type inet:ipv4-address;
    type inet:ipv6-address;
  }
}

/*--------------------*/
/* Configuration Data */
/*--------------------*/
/*
  Link-local Registration Protocol
*/
augment "/sys:system" {
  description "Link-local Registration Protocol";
  container lrp {
    if-feature lrp;
    description
      "Configure the Link-local Registration Protocol";
      leaf lrp-ack-timer-init {
        type uint32;
        units "milliseconds";
        config false;
        description
          "A read-only integer n specifying the number of milliseconds for
          ackTimerInit (D.2.12.6 of IEEE Std 802.1Q-2018)";
        reference
          "11.3.1 of IEEE Std 802.1CS";
      }
      leaf lrp-reconnect-max {
        type uint16;
        units "seconds";
        description
          "An integer number of seconds which is the maximum value for
          instReconnectReset.";
        reference
          "11.3.2 of IEEE Std 802.1CS";
      }
      list portal {
      key "portal-id";
      config false;
```


Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025

```
leaf portal-id {
  type uint32;
  config false;
  description
    "Local Identifier of portal";
  reference
    "Clause 10 of IEEE Std 802.1CS";
}
leaf target-port-interface-ref {
  type if:interface-ref;
  config false;
  description
    "The interface reference identifying the target
    port to which this portal is attached.";
  reference
    "8.2.1 of IEEE Std 802.1CS";
}
leaf lrp-dt-instance-id {
  type leafref {
    path "/sys:system/dot1cs:lrp/dot1cs:lrp-dt-instance/dot1cs:instance-id";
  }
  config false;
  description
    "The LRP-DT instance id that this portal is
    attached to.";
  reference
    "8.2.1 of IEEE Std 802.1CS";
}
leaf application-id {
  type string;
  config false;
  description
    "The value transmitted in, and expected to be received in, the
    appId field of Hello LRPDUs.";
  reference
    "8.2.2.1 of IEEE Std 802.1CS";
}
leaf my-chassis-id {
  type ieee:chassis-id-type ;
  config false;
  description
    "The value transmitted in the My Chassis ID TLV, and expected to be
    received in the Neighbor Chassis ID TLV, of Hello LRPDUs";
  reference
    "8.2.2.2 of IEEE Std 802.1CS";
}
leaf my-port-id {
  type ieee:port-id-type ;
  config false;
  description
    "The value transmitted in the My Port ID TLV, and expected to be
    received in the Neighbor Port ID TLV, of Hello LRPDUs.";
  reference
    "8.2.2.3 of IEEE Std 802.1CS";
}
leaf neighbor-chassis-id {
  type ieee:chassis-id-type ;
  config false;
  description
    "The value transmitted in the Neighbor Chassis ID TLV, and expected
    to be received in the My Chassis ID TLV, of Hello LRPDUs.";
  reference
    "8.2.2.4 of IEEE Std 802.1CS";
}
leaf neighbor-port-id {
  type ieee:port-id-type ;
  config false;
  description
    "The value transmitted in the Neighbor Port ID TLV, and expected to
    be received in the My Port ID TLV, of Hello LRPDUs.";
  reference
    "8.2.2.5 of IEEE Std 802.1CS";
```


Copyright © 2024 IEEE. All rights reserved.

Documents
Document Sharing Hub

Authorized licensed use limited to: Tsinghua University. Downloaded on February 26,2026 at 08:12:26 UTC from IEEE Xplore. Restrictions apply.

Full document details: ISO/IEC/IEEE 8802-1CS:2022/Cor 1-2025