FINAL DRAFT

AMENDMENT

ISO/IEC/IEEE 8802-1AB:2017 FDAM 2

Second edition 2017-07

AMENDMENT 2

ISO/IEC JTC 1/SC 6

Secretariat: KATS

Voting begins on: 2023-02-01

Voting terminates on: 2023-06-21

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

Part 1AB: Station and media access control connectivity discovery

ISO/IEC AMENDMENT 2: Support for multiframe

ieee-8802-1ab-2017-fdan

Technologies de l'information — Télécommunications et échange d'information entre systèmes — Réseaux locaux et métropolitains — Exigences spécifiques —

Partie 1AB: Découverte de connectivité des stations et du contrôle d'accès aux supports

AMENDEMENT 2

This document is circulated as received from the committee secretariat.

FAST TRACK PROCEDURE

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNO-LOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STAN-DARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.



Reference number ISO/IEC/IEEE 8802-1AB:2017/FDAM 2:2023(E)

> © ISO/IEC 2023 © IEEE 2023

iTeh STANDARD PREVIEW (standards.iteh.ai)

SO/IEC/IEEE 8802-1AB:2017/FDAmd 2

https://standards.iteh.ai/catalog/standards/sist/55bddb84-2083-4c82-9056-f9fc485ccc68/iso-iecieee-8802-1ab-2017-fdamd-2



COPYRIGHT PROTECTED DOCUMENT

© ISO 2023

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 either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO/IEC documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iso.or

IEEE Standards documents are developed within the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE-SA) Standards Board. The IEEE develops its standards through a consensus development process, approved by the American National Standards Institute, which brings together volunteers representing varied viewpoints and interests to achieve the final product. Volunteers are not necessarily members of the Institute and serve without compensation. While the IEEE administers the process and establishes rules to promote fairness in the consensus development process, the IEEE does not independently evaluate, test, or verify the accuracy of any of the information contained in its standards.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see https://www.iso.org/patents) or the IEC list of patent declarations received (see https://www.iso.org/patents) or the IEC list of patent declarations received (see https://www.iso.org/patents) or the IEC list of patent declarations received (see https://www.iso.org/patents) or the IEC list of patent declarations received (see https://www.iso.org/patents) or the IEC list of patent declarations received (see https://www.iso.org/patents)

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see <u>www.iso.org/iso/foreword.html</u>. In the IEC, see <u>www.iec.ch/understanding-standards</u>.

ISO/IEC/IEEE 8802-1AB:2017/Amd.2 was prepared by the LAN/MAN of the IEEE Computer Society (as IEEE 802.1ABdh-2021) and drafted in accordance with its editorial rules. It was adopted, under the "fast-track procedure" defined in the Partner Standards Development Organization cooperation agreement between ISO and IEEE, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

A list of all parts in the ISO/IEC/IEEE 8802 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <u>www.iso.org/members.html</u> and <u>www.iec.ch/national-committees</u>.

iTeh STANDARD PREVIEW (standards.iteh.ai)

ISO/IEC/IEEE 8802-1AB:2017/FDAmd 2

https://standards.iteh.ai/catalog/standards/sist/55bddb84-2083-4c82-9056-f9fc485ccc68/iso-iecieee-8802-1ab-2017-fdamd-2 IEEE Standard for Local and metropolitan area networks—

Station and Media Access Control Connectivity Discovery

Amendment 2: Support for Multiframe Protocol Data Units

ISO/IEC/IEEE 8802-1AB:2017/FDAmd 2

Developed by the nai/catalog/standards/sist/55bddb84-2083-4c82-9056-19fc485ccc68/iso-iec-LAN/MAN Standards Committeece-8802-1ab-2017-fdamd-2 of the

IEEE Computer Society

Approved 8 December 2021

IEEE SA Standards Board

ISO/IEC/IEEE 8802-1AB:2017/Amd.2:2023(E)

Abstract: This amendment to IEEE Std 802.1AB[™]-2016 specifies protocols, procedures, and managed objects that support the transmission and reception of a set of Link Layer Discovery Protocol (LLDP) Type/Length/Values (TLVs) that exceed the space available in a single frame.

Keywords: IEEE 802[®], IEEE 802.1AB[™], IEEE 802.1ABdh[™], link layer discovery protocol, management information base, multiframe LLDPDUs, topology discovery, topology information

iTeh STANDARD PREVIEW (standards.iteh.ai)

SO/IEC/IEEE 8802-1AB:2017/FDAmd 2

https://standards.iteh.ai/catalog/standards/sist/55bddb84-2083-4c82-9056-f9fc485ccc68/iso-iecieee-8802-1ab-2017-fdamd-2

Copyright © 2022 by The Institute of Electrical and Electronics Engineers, Inc. All rights reserved. Published 19 April 2022. 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 978-1-5044-8301-8 STD25173 Print: ISBN 978-1-5044-8302-5 STDPD25173

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.

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

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 (<u>https://standards.ieee.org/ipr/disclaimers.html</u>), 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 the IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (IEEE SA) Standards Board. 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. 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."

1ttps://standards.iteh.ai/catalog/standards/sist/55bddb84-2083-4c82-9056-f9fc485ccc68/iso-iec-

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 his or her 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.

Translations

The IEEE consensus development 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.

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 Standards Coordinating Committees 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 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.

¹Available at: <u>https://development.standards.ieee.org/myproject-web/public/view.html#landing</u>. ²Available at: <u>https://standards.ieee.org/content/ieee-standards/en/about/contact/index.html</u>.

Copyrights

IEEE draft and approved standards are copyrighted by IEEE under US 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, IEEE does not 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; <u>https://www.copyright.com/</u>. 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.

ttps://standards.iteh.ai/catalog/standards/sist/55bddb84-2083-4c82-9056-f9fc485ccc68/iso-iec-

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 <u>IEEE Xplore</u> or <u>contact IEEE</u>.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 <u>IEEE SA Website</u>.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 <u>IEEE Xplore</u>. 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: <u>https://ieeexplore.ieee.org/browse/standards/collection/ieee</u>.

⁴ Available at: <u>https://standards.ieee.org/standard/index.html</u>.

⁵ Available at: <u>https://standards.ieee.org/about/sasb/patcom/materials.html</u>.

ISO/IEC/IEEE 8802-1AB:2017/Amd.2:2023(E)

filed a statement of assurance via an Accepted Letter of Assurance, then the statement is listed on the IEEE SA Website at <u>https://standards.ieee.org/about/sasb/patcom/patents.html</u>. 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

IEEE Standards do not guarantee or ensure safety, security, health, or environmental protection, or ensure against interference with or from other devices or networks. 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.

(standards.iteh.ai)

ISO/IEC/IEEE 8802-1AB:2017/FDAmd 2

https://standards.iteh.ai/catalog/standards/sist/55bddb84-2083-4c82-9056-f9fc485ccc68/iso-iecieee-8802-1ab-2017-fdamd-2

Participants

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

Glenn Parsons, Chair Jessy Rouyer, Vice-Chair János Farkas, Chair, Time-Sensitive Networking Task Group Craig Gunther, Vice-Chair, Time-Sensitive Networking Task Group Stephen Haddock, Editor

| Astrit Ademaj Ralf Assmann Venkat Arunarthi Rudy Belliardi Christian Boiger Paul Bottorff Radhakrishna Canchi Feng Chen Abhijit Choudhury Paul Congdon Rodney Cummings Josef Dorr Hesham Elbakoury Anna Engelmann Thomas Enzinger Donald Fedyk Norman Finn Geoffrey Garner Amrit Gopal Marina Gutierrez | Yoshihiro Ito Michael Karl Stephan Kehrer Marcel Kiessling Randy Kelsey Gavin Lai James Lawlis Joao Lopes Lily Lv Christophe Mangin Scott Mansfield Kenichi Maruhashi Olaf Mater David McCall Larry McMillan John Messenger Hiroki Nakano Hiroshi Ohue Donald R. Pannell Razvan Petre | Atsushi Sato Frank Schewe Michael Seaman Maik Seewald Ramesh Sivakolundu Johannes Specht Marius Stanica Guenter Steindl Liyang Sun Karim Traore Max Turner Balazs Varga Ganesh Venkatesan Tongtong Wang Xinyuan Wang Karl Weber Leon Wessels Ludwig Winkel Jordon Woods |
|--|--|---|
| Geoffrey Garner | Hiroshi Ohue | Leon Wessels |
| 1 | | 6 |
| Marc Holness iece Daniel Hopf Woojung Huh Satoko Itaya | Wei Qiu Jah 2017-fdamd-2 Karen Randall Maximilian Riegel Silvana Rodrigues | Uwe Zeier Nader Zein William Zhao Helge Zinner |
| - | - | 5 |

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

Thomas Alexander Harry Bims Christian Boiger Vern Brethour William Byrd Paul Cardinal Pin Chang Diego Chiozzi János Farkas Avraham Freedman Craig Gunther Stephen Haddock Marco Hernandez Werner Hoelzl Oliver Holland Pranav Jha

Lokesh Kabra Piotr Karocki Stephan Kehrer Randy Kelsey Stuart Kerry Evgeny Khorov Yongbum Kim Hyeong Ho Lee Ting Li Christophe Mangin Scott Mansfield Jonathon Mclendon Satoshi Obara **Glenn Parsons** Bansi Patel Arumugam Paventhan Clinton Powell

Dieter Proell Alon Regev Maximilian Riegel Jessy Rouyer Frank Schewe Michael Seaman Eugene Stoudenmire Walter Struppler Mitsutoshi Sugawara Bo Sun Max Turner John Vergis Stephen Webb Karl Weber Scott Willy Yu Yuan Oren Yuen

ISO/IEC/IEEE 8802-1AB:2017/Amd.2:2023(E)

When the IEEE SA Standards Board approved this standard on 8 December 2021, it had the following membership:

Gary Hoffman, Chair Jon Walter Rosdahl, Vice Chair John D. Kulick, Past Chair Konstantinos Karachalios, Secretary

Edward A. Addy Doug Edwards Ramy Ahmed Fathy J. Travis Griffith Thomas Koshy Joseph L. Koepfinger* David J. Law Howard Li Daozhuang Lin Kevin Lu Daleep C. Mohla Chenhui Niu Damir Novosel Annette Reilly Dorothy Stanley

Mehmet Ulema Lei Wang F. Keith Waters Karl Weber Sha Wei Howard Wolfman Daidi Zhong

*Member Emeritus

Teh STANDARD PREVIEW (standards.iteh.ai)

SO/IEC/IEEE 8802-1AB:2017/FDAmd 2

https://standards.iteh.ai/catalog/standards/sist/55bddb84-2083-4c82-9056-f9fc485ccc68/iso-iec-ieee-8802-1ab-2017-fdamd-2

Introduction

This introduction is not part of IEEE Std 802.1ABdh-2021, IEEE Standard for Local and metropolitan area networks—Station and Media Access Control Connectivity Discovery—Amendment 2: Support for Multiframe Protocol Data Units.

The first edition of IEEE Std 802.1AB[™] was published in 2005, and revisions were published in 2009 and 2016. An amendment, IEEE Std 802.1ABcu[™]-2021, specifies a Unified Modeling Language (UML)-based information model and a YANG data model. This amendment, IEEE Std 802.1ABdh[™]-2021, specifies protocols, procedures, and managed objects that support the transmission and reception of a set of Link Layer Discovery Protocol (LLDP) Type/Length/Values (TLVs) that exceed the space available in a single frame.

iTeh STANDARD PREVIEW (standards.iteh.ai)

SO/IEC/IEEE 8802-1AB:2017/FDAmd 2

https://standards.iteh.ai/catalog/standards/sist/55bddb84-2083-4c82-9056-19fc485ccc68/iso-iecieee-8802-1ab-2017-fdamd-2

Contents

| 3. | Definit | ions and numerical representation | 12 |
|---|----------------------------|--|----|
| | 3.1 | Definitions | 12 |
| 4. | Acronyms and abbreviations | | 13 |
| 5. | Conformance | | 14 |
| | 5.3 | Required capabilities | 14 |
| 6. | Principles of operation | | 15 |
| | 6.1 | Transmission and reception | 15 |
| | 6.2 | LLDP operational modes | 16 |
| | 6.5 | Transmission principles | 17 |
| | 6.6 | Reception principles | |
| | 6.7 | Systems with multiple LLDP Agents | |
| | 6.9 | Extended LLDP (XLLDP) | 18 |
| 7. LLDPDU transmission, reception, and addressing | | DU transmission, reception, and addressing | 20 |
| | 7.1 | Destination address | 20 |
| | 7.2 | Source address | |
| | 7.4 | LLDPDU reception | 21 |
| 8. | LLDPDU and TLV formats | | 22 |
| | 8.2 | LLDPDU format | |
| | 8.3 | TLV categories | |
| | 8.4 | Basic TLV format | |
| | 8.5 arc | Basic management TLV set formats and definitions | 24 |
| | 8.5a | Extended LLDP set TLV formats and definitions | |
| | 8.6 | Organizationally Specific TLVs | 28 |
| 9. | LLDP | agent operation | 30 |
| | 9.1 | Overview | 30 |
| | 9.2 | State machines | 35 |
| 10. | LLDP | management | 50 |
| | 10.2 | The LLDP management entity's responsibilities | 50 |
| Anne | x A (no | rmative) PICS proforma | 52 |
| | A.4 | Major capabilities and options | 52 |
| Anne | x D (int | formative) Bibliography | 54 |

IEEE Standard for Local and metropolitan area networks—

Station and Media Access Control Connectivity Discovery

Amendment 2: Support for Multiframe Protocol Data Units

(This amendment is based on IEEE Std 802.1ABTM-2016 as amended by IEEE Std 802.1ABcuTM-2021.)

NOTE—The editing instructions contained in this amendment 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 <u>underscore</u> (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.