

INTERNATIONAL
STANDARD

ISO/IEC/
IEEE
8802-A

First edition
2015-12-15

AMENDMENT 1
2018-04

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

Part A:

Overview and architecture

**AMENDMENT 1: Allocation of Uniform
Resource Name (URN) values in IEEE
802® standards**

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

Partie A: Présentation et architecture

*AMENDEMENT 1: Attribution de valeurs de noms de ressources
uniformes (URN) dans les normes IEEE 802®*



Reference number
ISO/IEC/IEEE 8802-A:2015/Amd.1:2018(E)

© IEEE 2017



COPYRIGHT PROTECTED DOCUMENT

© IEEE 2017

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 or IEEE at the respective 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
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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

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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 documents should be noted.

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).

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

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

ISO/IEC/IEEE 8802-A:2015/Amd.1 was prepared by the LAN/MAN of the IEEE Computer Society (as IEEE Std 802d-2017) 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 website.

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC/IEEE 8802-A:2015/Amd 1:2018

IEEE Std 802d™-2017
(Amendment to
IEEE Std 802®-2014)

IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture

Amendment 1: Allocation of Uniform Resource Name (URN) Values in IEEE 802® Standards

Sponsor

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

Approved 14 February 2017

IEEE-SA Standards Board

STANDARDSISO.COM . Click to view the full PDF of IEEE 8802-A:2015/Amd 1:2018

Abstract: How Uniform Resource Name (URN) values are allocated in IEEE 802[®] standards is described in this amendment to IEEE Std 802[®]-2014.

Keywords: IEEE 802[®], Uniform Resource Name, URN

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

Copyright © 2017 by The Institute of Electrical and Electronics Engineers, Inc.
All rights reserved. Published 31 March 2017. 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 978-1-5044-3907-7 STD22508
Print: ISBN 978-1-5044-3908-4 STDPD22508

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.

Important Notices and Disclaimers Concerning IEEE Standards Documents

IEEE documents are made available for use subject to important notices and legal disclaimers. These notices and disclaimers, or a reference to this page, appear in all standards and may be found under the heading “Important Notices and Disclaimers Concerning IEEE Standards Documents.” They can also be obtained on request from IEEE or viewed at <http://standards.ieee.org/IPR/disclaimers.html>.

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

IEEE Standards documents (standards, recommended practices, and guides), both full-use and trial-use, are developed within IEEE Societies and the Standards Coordinating Committees of the IEEE Standards Association (“IEEE-SA”) Standards Board. IEEE (“the Institute”) develops its standards through a consensus development process, approved by the American National Standards Institute (“ANSI”), which brings together volunteers representing varied viewpoints and interests to achieve the final product. IEEE Standards are documents developed through scientific, academic, and industry-based technical working groups. Volunteers in IEEE working groups are not necessarily members of the Institute 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 Standards do not guarantee or ensure safety, security, health, or environmental protection, or ensure against interference with or from other devices or networks. 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.

IEEE does not warrant or represent the accuracy or content of the material contained in its standards, and expressly disclaims all warranties (express, implied and statutory) not included in this or any other document relating to the standard, including, but not limited to, the warranties of: merchantability; fitness for a particular purpose; non-infringement; and quality, accuracy, effectiveness, currency, or completeness of material. In addition, IEEE disclaims any and all conditions relating to: results; and workmanlike effort. 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 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: PROCUREMENT OF 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 should be considered 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, or 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 his or her views should be considered the personal views of that individual rather than the formal position of IEEE.

Comments on standards

Comments for revision of IEEE Standards documents are welcome from any interested party, regardless of membership affiliation with IEEE. However, IEEE does not provide 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 revisions to an IEEE standard is welcome to join the relevant IEEE working group.

Comments on standards should be submitted to the following address:

Secretary, IEEE-SA Standards Board
445 Hoes Lane
Piscataway, NJ 08854 USA

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 imply 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.

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, IEEE does not waive any rights in copyright to the documents.

Photocopies

Subject to payment of the appropriate fee, 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. 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 ten years. When a document is more than ten 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 the IEEE-SA Website at <http://ieeexplore.ieee.org> or contact IEEE at the address listed previously. For more information about the IEEE SA or IEEE's standards development process, visit the IEEE-SA Website at <http://standards.ieee.org>.

Errata

Errata, if any, for all IEEE standards can be accessed on the IEEE-SA Website at the following URL: <http://standards.ieee.org/findstds/errata/index.html>. Users are encouraged to check this URL for errata periodically.

Patents

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 filed a statement of assurance via an Accepted Letter of Assurance, then the statement is listed on the IEEE-SA Website at <http://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.

Participants

At the time this amendment was submitted to the IEEE-SA for approval, the IEEE P802.1 Working Group had the following membership:

Glenn Parsons, Chair
John Messenger, Vice Chair
János Farkas, Chair, Time-Sensitive Networking Task Group
Tony Jeffree, Editor

Seo Young Back	Marc Holness	Dan Romascanu
Shenghua Bao	Lu Huang	Jessy V. Rouyer
Jens Bierschenk	Michael Johas Teener	Eero Ryytty
Steinar Bjornstad	Hal Keen	Soheil Samii
Christian Boiger	Stephan Kehrer	Behcet Sarikaya
Paul Bottorff	Philippe Klein	Frank Schewe
David Chen	Jouni Korhonen	Michael Seaman
Feng Chen	Yizhou Li	Johannes Specht
Weiyang Cheng	Christophe Mangin	Wilfried Steiner
Rodney Cummings	Tom McBeath	Patricia Thaler
Norman Finn	James McIntosh	Paul Unbehagen
Geoffrey Garner	Tero Mustala	Hao Wang
Eric W. Gray	Hiroki Nakano	Karl Weber
Craig Gunther	Bob Noseworthy	Brian Weis
Marina Gutierrez	Donald R. Pannell	Jordon Woods
Stephen Haddock	Walter Pienciak	Nader Zein
Mark Hantel	Michael Potts	Helge Zinner
Patrick Heffernan	Karen Randall	Juan Carlos Zuniga
	Maximilian Riege	

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

Thomas Alexander	Marco Hernandez	Satoshi Obara
Richard Alfvén	David Hess	Thomas Palkert
Charles Barest	Werner Hoelzl	Bansi Patel
Christian Boiger	Yasuhiro Hyakutake	Verotiana Rabarijaona
Nancy Bravin	Noriyuki Ikeuchi	Karen Randall
William Byrd	Atsushi Ito	Maximilian Riegel
Steven Carlson	Raj Jain	Robert Robinson
Juan Carreon	Chanyong Jeong	Benjamin Rolfe
David Chalupsky	Michael Johas Teener	Jon Rosdahl
Keith Chow	Piotr Karocki	Osman Sakr
Todor Cooklev	Jeritt Kent	Frank Schewe
Em Delahostria	Stuart Kerry	Michael Seaman
Richard Doyle	Yongbum Kim	Thomas Starai
Marc Emmelmann	James Lepp	Walter Struppler
János Farkas	Jon Lewis	Mitsutoshi Sugawara
Norman Finn	Arthur H. Light	Bo Sun
Michael Fischer	Michael Lynch	Steven Tilden
Avraham Freedman	Elvis Maculuba	Mark-Rene Uchida
Yukihiro Fujimoto	Roger Marks	Lorenzo Vangelista
James Gilb	Jonathon McLendon	Prabodh Varshney
Joel Goergen	Richard Mellitz	George Vlantis
Randall Groves	Jeffrey Moore	Khurram Waheed
Craig Gunther	Michael Newman	Ludwig Winkel
Marek Hajduczenia	Nick S. A. Nikjoo	Oren Yuen
Jerome Henry	Paul Nikolich	Zhen Zhou

When the IEEE-SA Standards Board approved this amendment on 14 February 2017 it had the following membership:

Jean-Philippe Faure, *Chair*
Vacant Position, *Vice Chair*
John D. Kulick, *Past Chair*
Konstantinos Karachalios, *Secretary*

Chuck Adams
Masayuki Ariyoshi
Ted Burse
Stephen Dukes
Doug Edwards
J. Travis Griffith
Gary Hoffman

Michael Janezic
Thomas Koshy
Joseph L. Koepfinger*
Kevin Lu
Daleep Mohla
Damir Novosel
Ronald C. Petersen
Annette D. Reilly

Robby Robson
Dorothy Stanley
Adrian Stephens
Mehmet Ulema
Phil Wennblom
Howard Wolfman
Yu Yuan

* Member Emeritus

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC/IEEE 8802-A:2015/Amd 1:2018

Introduction

This introduction is not part of IEEE Std 802d-2017, IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture—Amendment 1: Allocation of Uniform Resource Name (URN) Values in IEEE 802® Standards.

This amendment specifies a Uniform Resource Name (URN) namespace for IEEE 802 networks. This URN is used as the root identifier for YANG data models that allow configuration and status reporting for IEEE 802 network elements. The YANG data modeling language is defined in IETF RFC 6020 [B8] and IETF RFC 7950 [B9].¹

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC/IEEE 8802-A:2015/Amd 1:2018

¹ The numbers in brackets correspond to the numbers of the bibliography in Annex A.

Contents

2. Normative references 11

3. Definitions, acronyms, and abbreviations 12

 3.2 Acronyms and abbreviations 12

11. Allocation of Uniform Resource Name (URN) values in IEEE 802 standards 13

 11.1 Introduction 13

 11.2 The IEEE Namespace ID and Namespace Specific String 13

 11.3 ResourceSpecificString values in IEEE 802 standards 14

Annex A (informative) Bibliography 15

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC/IEEE 8802-A:2015/Amd 1:2018

IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture

Amendment 1: Allocation of Uniform Resource Name (URN) Values in IEEE 802[®] Standards

(This amendment is based on IEEE Std 802[®]-2014.)

NOTE—The editing instructions contained in this amendment define how to merge the material contained here into the base document and its other amendments to form the new comprehensive standard.

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 either by using ~~strikethrough~~ (to remove old material) and underline (to add new material). *Delete* removes existing material. *Insert* adds new material without disturbing the existing material. 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.²

²Notes in text, tables, and figures are given for information only and do not contain requirements needed to implement the standard.

2. Normative references

Insert the following references into Clause 2 in the appropriate collating sequence:

IETF RFC 3406, Uniform Resource Names (URN) Namespace Definition Mechanisms, October 2002.³

IETF RFC 8069, URN Namespace for IEEE, February 2017.

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC/IEEE 8802-A:2015/Amd 1:2018

³ IETF documents (i.e., RFCs) are available from the Internet Engineering Task Force (<http://rfc-archive.org>).

3. Definitions, acronyms, and abbreviations

3.2 Acronyms and abbreviations

Insert the following abbreviations into 3.2 in the appropriate collating sequence:

IANA	Internet Assigned Numbers Authority ⁴
NETCONF	Network Configuration Protocol
NID	Namespace identifier
URN	Uniform Resource Name
YANG	The name of the data modeling language defined in IETF RFC 6020 [B8] and IETF RFC 7950 [B9]. ⁵

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC/IEEE 8802-A:2015/Amd 1:2018

⁴<http://www.iana.org/>.

⁵The numbers in brackets correspond to the numbers of the bibliography in Annex A.