INTERNATIONAL STANDARD

ISO/IEC/ IEEE 8802-1AC

First edition
2018-04

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

Part 1AC: Media access control (MAC) service definition

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

Partie 1AC: Définition du service de contrôle d'accès au support (MAC)

Reference number
ISO/IEC/IEEE 8802-1AC: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

© IEEE 2017 – All rights reserved

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 8802-1AC was prepared by the LAN/MAN of the IEEE Computer Society (as IEEE Std 802.1AC-2016) 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.

© IEEE 2017 – All rights reserved

IEEE Std 802.1AC™-2016
(Revision of
IEEE Std 802.1AC-2012)

IEEE Standard for Local and metropolitan area networks—

Media Access Control (MAC) Service Definition

Sponsor

LAN/MAN Standards Committee
of the
IEEE Computer Society

Approved 7 December 2016
IEEE-SA Standards Board

Abstract: The MAC Service and the Internal Sublayer Service (ISS) are defined in this standard. This standard specifies media-dependent convergence functions that map IEEE 802® MAC interfaces to the ISS. The MAC Service is derived from the ISS.

Keywords: IEEE 802, IEEE 802.1AC, Internal Sublayer Service, ISS, LAN, local area network, MAC Service, MAN, metropolitan area network

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 10 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 978-1-5044-3697-7 STD22395
Print: ISBN 978-1-5044-3698-4 STDPD22395

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 © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

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 Notice" or "Important Notices and Disclaimers Concerning IEEE Standards Documents."

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. Volunteers 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 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.

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

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.

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

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/browse/standards/collection/ieee 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.

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

Participants

At the time this standard was completed, the IEEE 802.1 working group had the following membership:

Glenn Parsons, *Chair*

John Messenger, *Vice Chair, Maintenance Task Group Chair, Editor*

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

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

Carlos Aldana
Thomas Alexander
Butch Anton
Lee Armstrong
Stefan Aust
Christian Boiger
Nancy Bravin
William Byrd
Juan Carreon
Minho Cheong
Keith Chow
Yezid Donoso
Janos Farkas
Michael Fischer
Yukihiro Fujimoto
Gregory Gillooly
Eric W. Gray
Randall Groves
Craig Gunther
Stephen Haddock
Marek Hajduczenia
Mark Hamilton
Jerome Henry
Marco Hernandez
Werner Hoelzl
Tetsushi Ikegami
Noriyuki Ikeuchi
Sergiu Iordanescu
Atsushi Ito
Tony Jeffree
Michael Johas Teener
Peter Jones
Shinkyo Kaku
Piotr Karocki
Stuart Kerry
Yongbum Kim
Tero Kivinen
Bruce Kraemer
Paul Lambert
James Lepp
Joseph Levy
Arthur H. Light
William Lumpkins
Elvis Maculuba
Syam Madanapalli
Roger Marks
Arthur Marris
Richard Mellitz
Jose Morales
Michael Newman
Nick S. A. Nikjoo
Satoshi Obara
Satoshi Oyama
Alon Regev
Robert Robinson
Jessy V. Rouyer
Richard Roy
Bartien Sayogo
Michael Seaman
Shusaku Shimada
Ju-Hyung Son
Kapil Sood
Thomas Starai
Adrian Stephens
Walter Struppler
Pedro Tonhozi de Oliveira
Mark-Rene Uchida
John Vergis
George Vlantis
Khurram Waheed
Karl Weber
Hung-Yu Wei
Natalie Wienckowski
Chun Yu Charles Wong
Tan Pek Yew
Oren Yuen
Zhen Zhou

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

When the IEEE-SA Standards Board approved this standard on 7 December 2016, it had the following membership:

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

Chuck Adams
Masayuki Ariyoshi
Stephen Dukes
Jianbin Fan
J. Travis Griffith
Gary Hoffman
Ronald W. Hotchkiss
Michael Janezic
Joseph L. Koepfinger*
Hung Ling
Kevin Lu
Annette D. Reilly
Gary Robinson
Mehmet Ulema
Yingli Wen
Howard Wolfman
Don Wright
Yu Yuan
Daidi Zhong

*Member Emeritus

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

trod ct o

This introduction is not part of IEEE Std 802.1AC-2016, IEEE Standard for Local and metropolitan area networks—Media Access Control (MAC) Service Definition.

During the history of IEEE 802, several different MAC types have been developed, all of which have a core of functionality that is common to IEEE 802 MACs in general, but all of which also provide functionality that extends beyond that common core. An example can be found in the way priority information is conveyed in different MACs; some have no means of conveying priority, some can convey two different priority code points, some can convey eight priority code points.

While such differences are not an issue in a Local Area Network (LAN) that employs a single MAC technology, they can become an issue in LANs where more than one MAC technology is employed, for example in Bridged LANs. It was therefore important at an early stage of MAC Bridge development to develop a clear definition of the MAC Service that would facilitate the definition of a common Bridging technology that could apply to all MAC types.

The MAC Service definition was first standardized as ISO/IEC 15802-1:1995 [B3]. When the ISO/IEC standard reached its 5-year revision point, IEEE 802 was asked to take over the document and revise it to reflect changes since publication. This revision emphasizes the fundamental relayable nature of the MAC Service provided to end stations by defining it in terms of the service, common to bridges and end stations, previously documented as the Internal Sublayer Service (ISS) in IEEE Std 802.1D™. In addition to the material that was contained in ISO/IEC 15802-1, this standard documents the ISS that was originally defined in IEEE Std 802.1D. This standard contains state-of-the-art material. The area covered by this standard is undergoing evolution. Revisions are anticipated within the next few years to clarify existing material, to correct possible errors, and to incorporate new related material. Information on the current revision state of this and other IEEE 802 standards may be obtained from

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

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

Contents

1.Scope ... 13

2.Normative references ... 14

3.Definitions ... 15

3.1 Basic reference model definitions ... 15
3.2 Service conventions definitions ... 15

4.Acronyms and abbreviations ... 16

5.Conformance ... 17

5.1 Translation between media using different protocol discrimination methods ... 17
5.2 Support of the ISS by different MAC procedures ... 17

6.Conventions ... 18

6.1 General considerations ... 18
6.2 Parameters ... 18

7.Basic architectural concepts and terms ... 19

7.1 Protocol entities, peers, layers, services, and clients ... 19
7.2 Service interface primitives, parameters, and frames ... 19
7.3 Layer management interfaces ... 20
7.4 Service access points, interface stacks, and ports ... 20
7.5 MAC method independent protocols and shims ... 21
7.6 MAC Service clients ... 21
7.7 Stations and systems ... 21
7.8 Connectionless connectivity ... 22

8.Overview of the MAC Service ... 23

9.Model of the MAC Service ... 24

9.1 Model of a MAC connectionless-mode transmission ... 24
9.2 Service provided by the connectionless-mode MAC Service ... 24

10.Quality of connectionless-mode service ... 25

10.1 Determination of QoS for connectionless-mode service ... 25
10.2 Definition of connectionless-mode QoS parameters ... 25

11.Internal Sublayer Service ... 26

11.1 Service primitives and parameters ... 26
11.2 Status parameters ... 28
11.3 Point-to-point parameters ... 28
11.4 Control primitives and parameters ... 29

12.Protocol discrimination and media ... 30

12.1 M_UNITDATA.request data transformation for LPD media ... 30
12.2 M_UNITDATA.indication data transformation for LPD media ... 30

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

12.3 Tags in end stations 31

13.Support of the Internal Sublayer Service by specific MAC procedures 32

13.1 Ethernet convergence function 32
13.2 Wireless LAN convergence function 33
13.3 WirelessMAN convergence function 36
13.4 Resilient Packet Ring convergence function 37
13.5 Mobile Broadband Wireless Access Method convergence function 39
13.6 Point-to-Multipoint Network convergence function 40

14.MAC Service 42

14.1 Function 42
14.2 Service primitives and parameters 42
14.3 Status parameters 43
14.4 Sequence of primitives 43

Annex A (informative) Bibliography 44

Annex B (informative) Support of the Internal Sublayer Service by specific MAC procedure 45

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

Figures

Figure 7-1—MAC entities, the MAC Service, and MAC Service users (clients) 20
Figure 7-2—An interface stack 21
Figure 9-1—Model for a MAC Service connectionless-mode transmission 24
Figure 13-1—IEEE 802.11 portal convergence function method 34
Figure 13-2—Simplified IEEE 802.1AE SecY 35
Figure 13-3—IEEE 802.11 Security architecture 35
Figure 14-1—Sequence of primitives 43
Figure B.1—IEEE 802.11 portal convergence function method 46
Figure B.2—Simplified IEEE 802.1AE SecY 47
Figure B.3—IEEE 802.11 Security architecture 47
Figure B.4—MAC security and IEEE 802.11 media 48

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

Tables

Table 5-1—MAC procedure and convergence conformance 17
Table 12-2—LLC encapsulation EtherType..... 31
Table 13-1—Priority to MAC Service class mapping..... 38
Table 13-2—MAC Service class to priority mapping..... 38

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

IEEE Standard for Local and metropolitan area networks—

Media Access Control (MAC) Service Definition

1. Scope

The scope of this standard is to define the Media Access Control (MAC) Service provided by all IEEE 802® MACs, and the Internal Sublayer Service (ISS) provided within MAC Bridges, in abstract terms of the following:

a) Their semantics, primitive actions, and events; and

b) The parameters of, interrelationship between, and valid sequences of these actions and events.

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

or at e re ere ces

The following referenced documents are indispensable for the application of this document (i.e., they must be understood and used, so each referenced document is cited in the text and its relationship to this document is explained). or dated references, only the edition cited applies. or undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

IEEE Std 802 , IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture.[1, 2]

IEEE Std 802.1A ™, IEEE Standard for Local and Metropolitan Area Networks—Link Aggregation.

IEEE Std 802.1D™, IEEE Standard for Local and Metropolitan Area Networks—Media Access Control (MAC) Bridges.

IEEE Std 802.1 ™, IEEE Standard for Local and Metropolitan Area Networks—Bridges and Bridged Networks.

IEEE Std 802.3™, IEEE Standard for Ethernet.

IEEE Std 802.11™, IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific re uirements—Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PH) Specifications.

IEEE Std 802.16™, IEEE Standard for Air Interface for Broadband Wireless Access Systems.

IEEE Std 802.1 ™, IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific re uirements—Part 1 : Resilient packet ring (RPR) access method and physical layer specifications.

IEEE Std 802.20™, IEEE Standard for Local and metropolitan area networks—Part 20: Air Interface for Mobile Broadband Wireless Access Systems Supporting ehicular Mobility—Physical and Media Access Control Layer Specification.

ISO/IEC 498-1, Information technology—Open Systems Interconnection—Basic Reference Model: The Basic Model.[3]

ISO/IEC 498-3, Information technology—Open Systems Interconnection—Basic Reference Model: Naming and addressing.

ISO/IEC 10 31, Information technology—Open Systems Interconnection—Basic Reference Model—Conventions for the definition of OSI services.

[1]IEEE publications are available from The Institute of Electrical and Electronics Engineers (http://standards.ieee.org/).

[2]The IEEE standards or products referred to in this clause are trademarks of The Institute of Electrical and Electronics Engineers, Inc.

[3]ISO/IEC publications are available from the ISO Central Secretariat (http://www.iso.org/). ISO publications are also available in the United States from the American National Standards Institute (http://www.ansi.org/).

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved

3. Definitions

For the purposes of this document, the following terms and definitions apply. The *IEEE Standards Dictionary Online* should be consulted for terms not defined in this clause.[4]

3.1 Basic reference model definitions

Although the MAC Service is not identified or defined in the Open Systems Interconnection (OSI) Basic Reference Model, this standard is based on the concepts developed in the Basic Reference Model and makes use of the following terms defined in ISO/IEC 7498-1 and ISO/IEC 7498-3, as they might apply to the MAC sublayer:[5]

a) (N)-entity
b) (N)-service

3.2 Service conventions definitions

Although the MAC Service is not identified or defined in the OSI Basic Reference Model, this standard makes use of the following terms defined in ISO/IEC 10731, as they might apply to the MAC sublayer:

a) Service user
b) Service provider
c) Primitive
d) Request
e) Indication

[4]*IEEE Standards Dictionary Online* subscription is available at: http://www.ieee.org/portal/innovate/products/standard/standards_dictionary.html.
[5]Information on references can be found in Clause 2.

Copyright © 2017 IEEE. All rights reserved.

IEEE 2017 – All rights reserved