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

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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

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IEEE Std 802.1AC™-2016
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IEEE Standard for Local and metropolitan area networks—

Media Access Control (MAC) Service Definition

Sponsor

LAN/MAN Standards Committee
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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

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Introduction

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

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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

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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

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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

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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

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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.

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

IEEE Std 802.1AX™, 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 802.1Q™, 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 requirements—Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications.

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

ISO/IEC 7498-1, Information technology—Open Systems Interconnection—Basic Reference Model: The Basic Model.[3]

ISO/IEC 7498-3, Information technology—Open Systems Interconnection—Basic Reference Model: Naming and addressing.

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