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Third edition
2021-02

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

**Part 3:
Standard for Ethernet**

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*Télécommunications et échange entre systèmes informatiques —
Exigences pour les réseaux locaux et métropolitains —*

Partie 3: Norme pour Ethernet

ISO/IEC/IEEE 8802-3:2021

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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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ISO/IEC/IEEE 8802-3 was prepared by the LAN/MAN of the IEEE Computer Society (as IEEE Std 8802-3: 2018) 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*.

This third edition cancels and replaces the second edition (ISO/IEC/IEEE 8802-3:2017), which has been technically revised. It also incorporates the Amendments ISO/IEC/IEEE 8802-3:2017/Amd 1:2017, ISO/IEC/IEEE 8802-3:2017/Amd 2:2017, ISO/IEC/IEEE 8802-3:2017/Amd 3:2017, ISO/IEC/IEEE 8802-3:2017/Amd 4:2017, ISO/IEC/IEEE 8802-3:2017/Amd 5:2017, ISO/IEC/IEEE 8802-3:2017/Amd 6:2018, ISO/IEC/IEEE 8802-3:2017/Amd 7:2017, ISO/IEC/IEEE 8802-3:2017/Amd 8:2018, ISO/IEC/IEEE 8802-3:2017/Amd 9:2018, ISO/IEC/IEEE 8802-3:2017/Amd 9:2018, ISO/IEC/IEEE 8802-3:2017/Amd 10:2019, ISO/IEC/IEEE 8802-3:2017/Amd 11:2019 and the Technical Corrigendum ISO/IEC/IEEE 8802-3:2017/Cor 1:2018.

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Abstract: Ethernet local area network operation is specified for selected speeds of operation from 1 Mb/s to 400 Gb/s using a common media access control (MAC) specification and management information base (MIB). The Carrier Sense Multiple Access with Collision Detection (CSMA/CD) MAC protocol specifies shared medium (half duplex) operation, as well as full duplex operation. Speed specific Media Independent Interfaces (MIIs) allow use of selected Physical Layer devices (PHY) for operation over coaxial, twisted pair or fiber optic cables, or electrical backplanes. System considerations for multisegment shared access networks describe the use of Repeaters that are defined for operational speeds up to 1000 Mb/s. Local Area Network (LAN) operation is supported at all speeds. Other specified capabilities include: various PHY types for access networks, PHYs suitable for metropolitan area network applications, and the provision of power over selected twisted pair PHY types.

Keywords: 2.5 Gigabit Ethernet; 5 Gigabit Ethernet; 10 Gigabit Ethernet; 25 Gigabit Ethernet; 40 Gigabit Ethernet; 100 Gigabit Ethernet; 200 Gigabit Ethernet; 400 Gigabit Ethernet; attachment unit interface; AUI; Auto-Negotiation; Backplane Ethernet; data processing; DTE Power via the MDI; Energy Efficient Ethernet; EPoC; EPON; EPON Protocol over Coax; Ethernet; Ethernet in the First Mile; Ethernet passive optical network; express traffic; Fast Ethernet; Gigabit Ethernet; IEEE 802.3™; information exchange; LAN; local area network; management; MDI; medium dependent interface; media independent interface; MIB; MII; MPMC; multi-point MAC control; PCS; PHY; physical coding sublayer; Physical Layer; physical medium attachment; physical medium dependent; PMA; PMD; PoDL; Power over Data Lines; Power over Ethernet; reconciliation sublayer; repeater; RS; type field; VLAN tag

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Participants

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David J. Law, *IEEE 802.3 Working Group Chair*
Adam Healey, *IEEE 802.3 Working Group Vice-Chair*
Pete Anslow, *IEEE 802.3 Working Group Secretary*
Steven B. Carlson, *IEEE 802.3 Working Group Executive Secretary*
Valerie Maguire, *IEEE 802.3 Working Group Treasurer*

Adam Healey, *IEEE P802.3 (IEEE 802.3cj) Task Force Chair and Editor-in-Chief*
Pete Anslow, *IEEE P802.3 (IEEE 802.3cj) Task Force Section Editor*
Marek Hajduczenia, *IEEE P802.3 (IEEE 802.3cj) Task Force Section Editor*

Historical participants

The following individuals participated in the IEEE 802.3 working group during various stages of the standard's development. Since the initial publication, many IEEE standards have added functionality or provided updates to material included in this standard. Included is a historical list of participants who have dedicated their valuable time, energy, and knowledge to the creation of this material:

IEEE Std 802.3 document	Date approved by IEEE	Working Group officers, Task Force Chair, and Task Force Editors as listed in the document
IEEE Std 802.3-1985, Original 10 Mb/s standard, MAC, PLS, AUI, 10BASE5	23 June 1983	Donald C. Loughry , <i>Working Group Chair</i>
IEEE Std 802.3b-1985 (Clause 11), 10 Mb/s Broad-band MAU, 10BROAD36	19 September 1985	Donald C. Loughry , <i>Working Group Chair</i> Menachem Abraham , <i>Task Force Chair</i>
IEEE Std 802.3a-1988 (Clause 10), 10 Mb/s MAU 10BASE2	15 November 1985	Donald C. Loughry , <i>Working Group Chair</i> Alan Flatman , <i>Task Force Chair</i>
IEEE Std 802.3c-1985 (9.1–9.8), 10 Mb/s Baseband Repeater	12 December 1985	Donald C. Loughry , <i>Working Group Chair</i> Geoffrey O. Thompson , <i>Task Force Chair</i>
IEEE Std 802.3e-1987 (Clause 12), 1 Mb/s MAU and Hub 1BASE5	11 June 1987	Donald C. Loughry , <i>Working Group Chair</i> Robert Galin , <i>Task Force Chair</i>
IEEE Std 802.3d-1987 (9.9), 10 Mb/s Fiber MAU, FOIRL	10 December 1987	Donald C. Loughry , <i>Working Group Chair</i> Steven Moustakas , <i>Task Force Chair</i>
IEEE Std 802.3h-1990 (Clause 5), 10 Mb/s Layer Management, DTEs	28 September 1990	Donald C. Loughry , <i>Working Group Chair</i> Andy J. Luque , <i>Task Force Chair</i>
IEEE Std 802.3i-1990 (Clauses 13 and 14), 10 Mb/s UTP MAU, 10 BASE-T	28 September 1990	Donald C. Loughry , <i>Working Group Chair</i> Patricia Thaler , <i>Task Force Chair (initial)</i> Richard Anderson , <i>Task Force Chair (final)</i>
IEEE Std 802.3k-1993 (Clause 19), 10 Mb/s Layer Management, Repeaters	17 September 1992	Patricia Thaler , <i>Working Group Chair</i> Joseph S. Skorupa , <i>Task Force Chair</i> Geoffrey O. Thompson , <i>Vice Chair and Editor</i>
IEEE Std 802.3l-1992 (14.10), 10 Mb/s PICS Proforma 10BASE-T MAU	17 September 1992	Patricia Thaler , <i>Working Group Chair</i> Mike Armstrong , <i>Task Force Chair and Editor</i> Paul Nikolich , <i>Vice Chair</i> William Randle , <i>Editorial Coordinator</i>

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IEEE Std 802.3p-1993 (Clause 20), Management, 10 Mb/s Integrated MAUs	17 June 1993	Patricia Thaler , <i>Working Group Chair</i> Joseph S. Skorupa , <i>Task Force Chair</i> Geoffrey O. Thompson , <i>Vice Chair and Editor</i>
IEEE Std 802.3q-1993 (Clause 5), 10 Mb/s Layer Management, GDMO Format	17 June 1993)	Patricia Thaler , <i>Working Group Chair</i> Joseph S. Skorupa , <i>Task Force Chair</i> Geoffrey O. Thompson , <i>Vice Chair and Editor</i>
IEEE Std 802.3j-1993 (Clauses 15–18), 10 Mb/s Fiber MAUs 10BASE-FP, 10BASE-FB, and 10BASE-FL	15 September 1993	Patricia Thaler , <i>Working Group Chair</i> Keith Amundsen , <i>Task Force Chair (initial)</i> Frederick Scholl , <i>Task Force Chair (final)</i> Michael E. Lee , <i>Technical Editor</i>
IEEE Std 802.3t-1995, 120 Ω informative annex to 10BASE-T	14 June 1995	Geoffrey O. Thompson , <i>Working Group Chair</i> Jacques Christ , <i>Task Force Chair</i>
IEEE Std 802.3u-1995 (Clauses 21–30), Type 100BASE-T MAC parameters, Physical Layer, MAUs, and Repeater for 100 Mb/s Operation	14 June 1995	Geoffrey O. Thompson , <i>Working Group Chair</i> Peter Tarrant , <i>Task Force Chair (Phase 1)</i> Howard Frazier , <i>Task Force Chair (Phase 2)</i> Paul Sherer , <i>Task Force Editor-in-Chief (Phase 1)</i> Howard Johnson , <i>Task Force Editor-in-Chief (Phase 2)</i>
IEEE Std 802.3m-1995, Maintenance 2	21 September 1995	Patricia Thaler , <i>Working Group Chair</i> Gary Robinson , <i>Maintenance Chair</i>
IEEE Std 802.3n-1995, Maintenance 3	21 September 1995	Patricia Thaler , <i>Working Group Chair</i> Gary Robinson , <i>Maintenance Chair</i>
IEEE Std 802.3s-1995, Maintenance 4	21 September 1995	Geoffrey O. Thompson , <i>Working Group Chair</i> Gary Robinson , <i>Maintenance Chair</i>
IEEE Std 802.3v-1995, 150 Ω informative annex to 10BASE-T	12 December 1995	Geoffrey O. Thompson , <i>Working Group Chair</i> Larry Nicholson , <i>Task Force Chair</i>
IEEE Std 802.3r-1996 (8.8), Type 10BASE5 Medium Attachment Unit PICs proforma	29 July 1996	Patricia Thaler , <i>Working Group Chair</i> Imre Juhász , <i>Task Force Chair</i> William Randle , <i>Task Force Editor</i>
IEEE Std 802.3x-1997 and IEEE Std 802.3y-1997 (Revisions to IEEE Std 802.3, Clauses 31 and 32), Full-Duplex Operation and Type 100BASE-T2	20 March 1997	Geoffrey O. Thompson , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Rich Seifert , <i>Task Force Chair and Editor (802.3x)</i> J. Scott Carter , <i>Task Force Chair (802.3y)</i> Colin Mick , <i>Task Force Editor (802.3y)</i>
IEEE Std 802.3z-1998 (Clauses 34–39, 41–42), Type 1000BASE-X MAC Parameters, Physical Layer, Repeater, and Management Parameters for 1000 Mb/s Operation	25 June 1998	Geoffrey O. Thompson , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Howard M. Frazier, Jr. , <i>Task Force Chair</i> Howard W. Johnson , <i>Task Force Editor</i>
IEEE Std 802.3aa-1998, Maintenance 5	25 June 1998	Geoffrey O. Thompson , <i>Working Group Chair</i> Colin Mick , <i>Task Force Editor</i>
IEEE Std 802.3ac-1998, Frame Extensions for Virtual Bridged Local Area Network (VLAN) Tagging on IEEE 802.3 Networks	16 September 1998	Geoffrey O. Thompson , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Andy J. Luque , <i>Working Group Secretary</i> Ian Crayford , <i>Task Force Chair</i> Rich Seifert , <i>Task Force Editor</i>
IEEE Std 802.3ab-1999 (Clause 40), Physical Layer Parameters and Specifications for 1000 Mb/s Operation Over 4 Pair of Category 5 Balanced Copper Cabling, Type 1000BASE-T	26 June 1999	Geoffrey O. Thompson , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Robert M. Grow , <i>Working Group Secretary</i> George Eisler , <i>Task Force Chair</i> Colin Mick , <i>Task Force Editor</i>

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IEEE Std 802.3ad-2000 (Clause 43), Aggregation of Multiple Link Segments	30 March 2000	Geoffrey O. Thompson , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Robert M. Grow , <i>Working Group Secretary</i> Steven Haddock , <i>Task Force Chair</i> Tony Jeffree , <i>Task Force Co-Editor</i> Rich Seifert , <i>Task Force Co-Editor</i>
IEEE Std 802.3-2002 (IEEE 802.3ag, Maintenance 6, Revision of the base), Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access method and Physical Layer specifications	14 January 2002	Geoffrey O. Thompson , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Robert M. Grow , <i>Working Group Secretary</i>
IEEE Std 802.3ae-2002, (Clauses 44–53) Media Access Control (MAC) Parameters, Physical Layers, and Management Parameters for 10 Gb/s Operation	13 June 2002	Geoffrey O. Thompson , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Robert M. Grow , <i>Working Group Secretary</i> R. Jonathan Thatcher , <i>Task Force Chair</i> Stephen Haddock , <i>Task Force Vice Chair</i> Bradley J. Booth , <i>Task Force Editor</i>
IEEE Std 802.3af-2003, (Clause 33) Data Terminal Equipment (DTE) Power via Media Dependent Interface (MDI)	12 June 2003	Geoffrey O. Thompson , <i>Working Group Chair (Phase 1)</i> Robert M. Grow , <i>Working Group Chair (Phase 2)</i> David J. Law , <i>Working Group Vice Chair</i> Robert M. Grow , <i>Working Group Secretary (Phase 1)</i> Steven B. Carlson , <i>Working Group Secretary (Phase 2)</i> Steven B. Carlson , <i>Task Force Chair</i> Michael S. McCormack , <i>Task Force Editor (Phase 1)</i> John J. Jetzt , <i>Task Force Editor (Phase 2)</i>
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IEEE Std 802.3ak-2004, Physical Layer and Management Parameters for 10Gb/s Operation, Type 10GBASE-CX4	9 February 2004	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Steven B. Carlson , <i>Working Group Secretary</i> Daniel J. Dove , <i>Task Force Chair</i> Howard A. Baumer , <i>Task Force Editor</i>
IEEE Std 802.3ah-2004, Media Access Control Parameters, Physical Layers, and Management Parameters for Subscriber Access Networks	6 April 2005	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Steven B. Carlson , <i>Working Group Secretary</i> Howard Frazier , <i>Task Force Chair</i> Wael W. Diab , <i>Task Force Editor-in-Chief</i> Hugh Barrass , <i>Task Force Vice-Chair</i>
IEEE Std 802.3-2005 (IEEE 802.3REVam, Revision of the base), Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access method and Physical Layer specifications	9 June 2005	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair, Task Force Chair, Task Force Chief Editor</i> Wael W. Diab , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i>
IEEE Std 802.3an-2006, Physical Layer and Management Parameter for 10 Gb/s Operation, Type 10GBASE-T	8 June 2006	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Wael William Diab , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Bradley Booth , <i>Task Force Chair</i> Sanjay Kasturia , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3-2005/Cor 1-2006 (IEEE 802.3au), DTE Power via MDI Isolation corrigendum	8 June 2006	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair, Task Force Chair, and Task Force Editor</i> Wael W. Diab , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i>

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IEEE Std 802.3aq-2006, Physical Layer and Management Parameters for 10 Gb/s Operation, Type 10GBASE-LRM	15 September 2006	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Wael William Diab , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> David G. Cunningham , <i>Task Force Chair</i> Nick Weiner , <i>Task Force Editor</i>
IEEE Std 802.3as-2006, Frame format extensions	15 September 2006	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair</i> Wael William Diab , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Kevin Q Daines , <i>Task Force Chair</i> Glenn W. Parsons , <i>Task Force Editor</i>
IEEE Std 802.3ap-2007, Ethernet Operation over Electrical Backplanes	22 March 2007	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice-Chair</i> Wael W. Diab , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Bradley Booth , <i>Working Group Treasurer</i> Adam Healey , <i>Task Force Chair</i> Schelto vanDoorn , <i>Task Force Editor-in-Chief (Phase 1)</i> Ilango S. Ganga , <i>Task Force Editor-in-Chief (Phase 2)</i>
IEEE Std 802.3-2005/Cor 2-2007 (IEEE 802.3aw), 10GBASE-T corrigendum	7 June 2007	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair, Task Force Chair, and Task Force Editor</i> Wael W. Diab , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Bradley Booth , <i>Working Group Treasurer</i>
IEEE Std 802.3-2008 (IEEE 802.3ay), Maintenance #9 (Revision of the base), Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access method and Physical Layer specifications	26 September 2008	Robert M. Grow , <i>Working Group Chair</i> David J. Law , <i>Working Group Vice Chair, Task Force Chair, and Task Force Editor</i> Wael William Diab , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Bradley Booth , <i>Working Group Treasurer</i>
IEEE Std 802.3at-2009 Data Terminal Equipment (DTE) Power via the Media Dependent Interface (MDI) Enhancements	11 September 2009	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice Chair</i> Adam Healey , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Bradley Booth , <i>Working Group Treasurer</i> Mike McCormack , <i>Task Force Chair</i> D. Matthew Landry , <i>Task Force Chief Editor</i>
IEEE Std 802.3av-2009 Physical Layer Specifications and Management Parameters for 10 Gb/s Passive Optical Networks	11 September 2009	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice Chair</i> Adam Healey , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Bradley Booth , <i>Working Group Treasurer</i> Glen Kramer , <i>Task Force Chair</i> Duane Remlein , <i>Task Force Chief Editor</i>
IEEE Std 802.3bc-2009 Ethernet Organizationally Specific Type, Length, Value (TLVs)	11 September 2009	David J. Law , <i>Working Group Chair and Task Force Editor</i> Wael W. Diab , <i>Working Group Vice Chair and Task Force Chair</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Adam Healey , <i>Working Group Secretary</i> Bradley Booth , <i>Working Group Treasurer</i>
IEEE Std 802.3-2008/Cor 1-2009 (IEEE 802.3bb) Pause Reaction Delay Corrigendum.	9 December 2009	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice-Chair</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Adam Healey , <i>Working Group Secretary</i> Bradley Booth , <i>Working Group Treasurer</i>

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IEEE Std 802.3ba Media Access Control Parameters, Physical Layers, and Management Parameters for 40 Gb/s and 100 Gb/s Operation	17 June 2010	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice-Chair</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Adam Healey , <i>Working Group Secretary</i> Bradley Booth , <i>Working Group Treasurer</i> John D'Ambrosia , <i>Task Force Chair</i> Ilango S. Ganga , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3az-2010 Media Access Control Parameters, Physical Layers, and Management Parameters for Energy-Efficient Ethernet	30 September 2010	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice Chair</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Adam Healey , <i>Working Group Secretary</i> Bradley Booth , <i>Working Group Treasurer</i> Michael Bennett , <i>Task Force Chair</i> Sanjay Kasturia , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bg-2011 Physical Layer and Management Parameters for Serial 40 Gb/s Ethernet Operation Over Single-Mode Fiber	31 March 2011	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice-Chair</i> Adam Healey , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Mark Nowell , <i>Task Force Chair</i> Pete Anslow , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bf-2011 Media Access Control (MAC) Service Interface and Management Parameters to Support Time Synchronization Protocols	16 May 2011	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice-Chair</i> Adam Healey , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Steven B. Carlson , <i>Task Force Chair</i> Marek Hajduczenia , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bd-2011 MAC Control Frame for Priority-based Flow Control	16 June 2011	Tony Jeffree , <i>IEEE 802.1 Working Group Chair</i> Paul Congdon , <i>IEEE 802.1 Working Group Vice Chair</i> David J. Law , <i>IEEE 802.3 Working Group Chair</i> Wael W. Diab , <i>IEEE 802.3 Working Group Vice Chair</i> Pat Thaler , <i>Data Center Bridging Task Group Chair</i>
IEEE Std 802.3-2012 (IEEE 802.3ah), Maintenance #10 (Revision of the base), Standard for Ethernet	28 December 2012	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice-Chair, Task Force Chair, and Task Force Editor-in-Chief</i> Adam Healey , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i>
IEEE Std 802.3bk-2013 Physical Layer Specifications and Management Parameters for Extended Ethernet Passive Optical Networks	23 August 2013	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice-Chair</i> Adam Healey , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Marek Hajduczenia , <i>Task Force Chair</i> Susumu Nishihara , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bj-2014 Physical Layer Specifications and Management Parameters for 100 Gb/s Operation Over Backplanes and Copper Cables	12 June 2014	David J. Law , <i>Working Group Chair</i> Wael William Diab , <i>Working Group Vice-Chair (initial)</i> Adam Healey , <i>Working Group Secretary, (initial), Task Force Editor-in-Chief (initial), Working Group Vice-Chair (final), and Task Force Chair (final)</i> Peter Anslow , <i>Working Group Secretary (final)</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> John D'Ambrosia , <i>Task Force Chair (initial)</i> Matthew Brown , <i>Task Force Editor-in-Chief (final)</i>
IEEE Std 802.3bm-2015 Physical Layer Specifications and Management Parameters for 40 Gb/s and 100 Gb/s Operation Over Fiber Optic Cables	16 February 2015	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary and Task Force Editor-in-Chief</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Dan Dove , <i>Task Force Chair</i> Kapil Shrikhande , <i>Task Force Vice-Chair</i>

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IEEE Std 802.3-2015 (IEEE 802.3bx), Maintenance #11 (Revision of the base), Standard for Ethernet	3 September 2015	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair, Task Force Chair, and Task Force Editor-in-Chief</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i>
IEEE Std 802.3bw-2015 Physical Layer Specifications and Management Parameters for 100 Mb/s Operation over a Single Balanced Twisted Pair Cable (100BASE-T1)	26 October 2015	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary and Task Force Chair, Phase 2</i> Valerie Maguire , <i>Working Group Treasurer</i> Thomas Hogenmüller , <i>Task Force Chair, Phase 1</i> Mehmet Tazebay , <i>Task Force Vice-Chair</i> Curtis Donahue , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3by-2016 Media Access Control Parameters, Physical Layers, and Management Parameters for 25 Gb/s Operation	30 June 2016	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Mark Nowell , <i>Task Force Chair</i> Matthew Brown , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bq-2016 Physical Layers and Management Parameters for 25 Gb/s and 40 Gb/s Operation, Types 25GBASE-T and 40GBASE-T	30 June 2016	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> David Chalupsky , <i>Task Force Chair</i> George Zimmerman , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bp-2016 Physical Layer Specifications and Management Parameters for 1 Gb/s Operation over a Single Twisted-Pair Copper Cable	30 June 2016	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary and Task Force Chair</i> Valerie Maguire , <i>Working Group Treasurer</i> Marek Hajduczenia , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3br-2016 Specification and Management Parameters for Interspersing Express Traffic	30 June 2016	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Ludwig Winkel , <i>Task Force Chair</i> Patricia Thaler , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bn-2016 Physical Layer Specifications and Management Parameters for Ethernet Passive Optical Networks Protocol over Coax	22 September 2016	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Mark Laubach , <i>Task Force Chair</i> Duane Remein , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bz-2016 Media Access Control Parameters, Physical Layers, and Management Parameters for 2.5 Gb/s and 5 Gb/s Operation, Types 2.5GBASE-T and 5GBASE-T	22 September 2016	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> David Chalupsky , <i>Task Force Chair</i> George Zimmerman , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3bu-2016 Physical Layer and Management Parameters for Power over Data Lines (PoDL) of Single Balanced Twisted-Pair Ethernet	7 December 2016	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Dave Dwelley , <i>Task Force Chair, Phase 1</i> Dan Dove , <i>Task Force Chair, Phase 2</i> Andy Gardner , <i>Task Force Editor-in-Chief</i>

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IEEE Std 802.3bv-2017 Physical Layer Specifications and Management Parameters for 1000 Mb/s Operation Over Plastic Optical Fiber	14 February 2017	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> Robert M. Grow , <i>Task Force Chair</i> Rubén Pérez-Aranda , <i>Task Force Editor-in-Chief</i>
IEEE Std 802.3-2015/Cor 1-2017 (IEEE 802.3ce) Multilane Timestamping	23 March 2017	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair, Task Force Chair, and Task Force Editor-in-Chief</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i>
IEEE Std 802.3bs-2017 Media Access Control Parameters, Physical Layers, and Management Parameters for 200 Gb/s and 400 Gb/s Operation	6 December 2017	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary and Task Force Editor-in-Chief</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> John D'Ambrosia , <i>Task Force Chair</i>
IEEE Std 802.3cc-2017 Physical Layer and Management Parameters for Serial 25 Gb/s Ethernet Operation Over Single-Mode Fiber	6 December 2017	David J. Law , <i>Working Group Chair</i> Adam Healey , <i>Working Group Vice-Chair</i> Pete Anslow , <i>Working Group Secretary</i> Steven B. Carlson , <i>Working Group Executive Secretary</i> Valerie Maguire , <i>Working Group Treasurer</i> David Lewis , <i>Task Force Chair</i> Kohichi R. Tamura , <i>Task Force Editor-in-Chief</i>

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