

# IEEE Standard for Ethernet YANG Data Model Definitions

IEEE Computer Society

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# IEEE Standard for Ethernet YANG Data Model Definitions

Developed by the

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

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**IEEE-SA Standards Board**

**Abstract:** YANG models for IEEE Std 802.3 are defined in this standard. This standard also publishes these models in a machine-readable format.

**Keywords:** 802.3, 802.3.2, Ethernet, YANG

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## Introduction

This introduction is not part of IEEE Std 802.3.2-2019, IEEE Standard for Ethernet YANG Data Model Definitions.

The YANG modules included in this standard provide YANG versions of attributes defined in IEEE Std 802.3<sup>TM</sup>-2018, Clause 30, as well as derivative attributes defined in other management information bases (e.g., SNMP attributes included in IEEE Std 802.3.1, YANG versions of IETF Etherlike MIB attributes, etc.). The YANG modules defined in this standard accommodate IEEE Std 802.3-2018, excluding any currently published or future amendments. As IEEE Std 802.3 continues to evolve, new revisions of this standard may be published in the future to address new technologies and features.

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# IEEE Standard for Ethernet YANG Data Model Definitions

## 1. Overview

This standard defines YANG modules for various Ethernet devices specified in IEEE Std 802.3. This includes half-duplex and full-duplex data terminal equipment (DTE) using either Carrier Sense Multiple Access/Collision Detection (CSMA/CD) or Multipoint Control Protocol (MPCP), and Power Sourcing Equipment (PSE).

### 1.1 Scope

This standard defines YANG data models for IEEE Std 802.3 Ethernet.

### 1.2 Purpose

The purpose of the standard is to define YANG modules for IEEE Std 802.3 and publish these modules in a machine-readable format.

### 1.3 Machine-readable YANG modules

The machine-readable files are available for download at the following URL: <https://github.com/YangModels/yang/tree/master/standard/ieee/published/802.3> as text files with a *.yang* extension, e.g., *ieee802-ether-net-interface.yang*. The use of specialized tools to view YANG modules may be useful to create tree, UML image, and HTML outputs from the YANG modules.

Like other languages, YANG (see IETF RFC 7950) has an accepted style for machine-readable files, which was followed during the development of this standard. This formatting may not be preserved when importing the machine-readable YANG modules into the PDF. In case of any formatting discrepancies, the published machine-readable files should be consulted.

### 1.4 Summary of YANG-based management framework

The structure of YANG-based management framework closely resembles the structure of the Internet-Standard Management Framework, described in detail in section 7 of IETF RFC 3410.