

IEEE SA Open Source Committee (OSCom)

Open Source Project Request

Title: IEEE 802.3 YANG Modules

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INSTRUCTIONS

- Use this deck to present a request for approval of a Tier 3, 4 or 5 project* to the IEEE SA Open Source Committee (OSCom).
- The formal project request is made via the project request form submitted as an issue on the SA Open GitLab platform. **This deck is used to walk the committee through the project request and explain the context and choices made in the formal request.**
- When there is space on a slide for data from the formal request, please cut and paste the data from that request.
- **Please keep explanations concise and jargon-free** and do not assume that OSCom members:
 - Are experts in your field,
 - Are standards developers who know every standard by its number, or
 - Are familiar with the technology that you are trying to create.

*Definitions of Tiers

Tier 3 Open Source Projects reviewed and approved for use of the IEEE Open Source Platform by OSCom to create IEEE Open Source Releases or products.

Tier 4: IEEE Open Source Projects incorporated into IEEE standards—IEEE Open Source Projects operating in conjunction with an SASB authorized standards Project.

Tier 5: Joint IEEE Open Source Projects—IEEE Open Source Projects that are operating in conjunction with another IEEE Board or Organizational Unit and are also subject to the policies and procedures of that Board or Organizational Unit

PROJECT TITLE AND RELATED STANDARDS

Open source project title: IEEE Std. 802.3 YANG Modules

Related standards project (if applicable):

- **PAR number or standard number: IEEE 802.3**
- **Scope statement:**

This standard defines Ethernet local area, access and metropolitan area networks. Ethernet is specified at selected speeds of operation; and uses 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) provide an architectural and optional implementation interface to selected Physical Layer devices (PHYs). The Physical Layer encodes frames for transmission and decodes received frames with the modulation specified for the speed of operation, transmission medium and supported link length. Other specified capabilities include: control and management protocols, and the provision of power over selected twisted pair PHY types.

- **Explanation of what the standard does:**
Specifies the 802.3 Ethernet standard.

PROJECT DESCRIPTION

What open source will be developed:

This project will create, maintain and publish YANG models¹ based on the abstract definitions in “Clause 30 Management” of IEEE Std 802.3. The project will start from the YANG models specified in IEEE Std 802.3.2-2025 once appropriate CLAs(Contributor License Agreements) have been obtained.

Why this is valuable:

Both IEEE 802.3.1 (SNMP MIBs) and IEEE 802.3.2 (YANG models) have suffered from being both significantly behind (greater than 12 months) IEEE Std 802.3 amendments and incomplete. Having these models available much later than the amendments, and often the products implementing them, significantly reduces the value of having a standardized management model.

Using the IEEE OS process will allow us to create and publish the YANG models in parallel with the development of IEEE Std 802.3 amendments. It will also reduce the barriers to participation, and the difficulty of maintaining and expanding the 802.3 YANG Models.

RELATION TO EXISTING OPEN SOURCE

Relation to known open source:

None

Description of pre-existing open source that will be used (if any):

None

GOVERNANCE

Requested license (and reason):

BSD 3-Clause License as recommended by OSCom staff

How will the project be governed?

We agree that we will have a governance document for review by the community manager within 30 days and that we will make any modifications necessary to conform to all applicable policies and procedures.

Governance by the IEEE 802.3 Working Group and will follow all applicable IEEE governance requirements including having an Open Source Lead and Maintainer per SASB and OSCom Operations Manuals.

SUMMARY

Summary of the project and your questions for OSCom:

Starting from the YANG models defined in IEEE Std 802.3.2-2025, the project will maintain existing, and create new, YANG models based on the abstract management interface defined in IEEE Std 802.3-2022 and subsequent amendments or revisions.

Review of the formal project request: (To be completed by the OSCom Administrator.)

THANK YOU

<https://saopen.ieee.org>