

IEEE 802.3 YANG OS Project Ad Hoc Status and Next Steps

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Bangkok, Thailand, 13 November 2025

IEEE 802.3 YANG OS Project Ad Hoc

How did we get here?

At the May interim, the 802.3 WG Chair chartered an Ad Hoc to investigate IEEE 802.3 YANG into an IEEE OSCOM open-source project.

See https://www.ieee802.org/3/minutes/may25/jones_8023_yang_1a_may_2025.pdf

Key elements of the presentation are excerpted in the following slides.

IEEE 802.3 YANG OS Project Ad Hoc

How did we get here?

Background

- IEEE Std. 802.3 (“802.3”) specifies a protocol independent management interface (Clause 30).
- At one time, the IEEE 802.3 Working Group (“the WG”) relied on the IETF to create and update SNMP MIBs based on the Clause 30 definitions.
- The IETF stopped performing that task, and the current MIB text was used to create 802.3.1-2008.
- 802.3 and YANG
 - Starting in 2016, 802.3 developed IEEE Std 802.3.2-2019.
 - The current 802.3.2 revision project is expected to complete this year.
- 802.3.2 YANG participants work with the 802 YANG editors’ coordination group.
- 802.3 publishes 802.3.2 YANG models on GitHub at:
 - <https://github.com/YangModels/yang/tree/master/standard/ieee/published/802.3>
- 802.3 struggles to keep 802.3.1 and 802.3.2 up to date with 802.3.
- This proposal attempts to reduce friction in creating and maintaining YANG models and make it easier to get more people involved.

IEEE 802.3 YANG OS Project Ad Hoc

How did we get here?

Proposal Overview

- Create an IEEE Open-Source project to create and maintain IEEE 802.3 YANG models based on 802.3.2-2025
- The project will be run by the YANG Open-Source Project Ad Hoc (aka YANG Ad Hoc)
- The YANG Ad Hoc will
 - Extensively leverage the work COM Ad Hoc.
 - Use the BSD 3-Clause License.
 - Commit the 802.3.2-2025 Models to the OS project.
 - Take responsibility for creating and maintaining models.

IEEE 802.3 YANG OS Project Ad Hoc

How did we get here?

Seeding the OS project from 802.3.2-2025

- IEEE holds copyright for 802.3.2 (including machine-readable extracts).
- There are no LOAs for 802.3.2.
- Advice from OSCOM staff is to get license agreements from all “significant contributors” (i.e., people who authored a significant amount of the YANG models)
 - I am compiling a list of significant contributors

*IEEE Std 802.3.2 is currently under revision

802.3 YANG Model Open-Source Proposal May 2025 - jones_8023_yang_1a_may_2025.pdf

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IEEE 802.3 YANG OS Ad Hoc Discussions and consultation

In addition to discussions within the 802.3 WG, especially individuals participating in the IEEE Std 802.3.2 revision project, the Ad Hoc also discussed the proposed project with individuals from:

[YANGsters](#) - IEEE 802 YANG editors' coordination

[IEEE 802.1](#)

[IEEE 802 YANG Standing Committee](#)

[OSCOM](#) staff, e.g., OSCom Community Manager

IEEE 802.3 YANG OS Project Ad Hoc Output

Agreed to request “Tier 3” project

Tier 3 applies where the project output is not included in, or referenced by, an IEEE standard. In this case, IEEE 802.3 will not refer to, or include material from the project.

Tier 3 provides significantly more flexibility to develop and maintain models based on 802.3 clause 30.

Documents developed by the Ad Hoc:

[802.3 YANG Modules OSCom Tier 3 Project Request document](#)

[802.3 YANG Modules OSCom Tier 3 Project Request slides](#)

[YANG AdHoc FAQ and Guidelines](#)

Motions etc

Proposed 802.3 Motion

Move that the IEEE 802.3 Working Group approve the 802.3 YANG Tier 3 Open Source Project Proposal as per:

https://www.ieee802.org/3/ad_hoc/YANGOS/project_docs/OSCom_802.3_YANG_T3_deck_070325.pdf

https://www.ieee802.org/3/ad_hoc/YANGOS/project_docs/OSCom_802.3_YANG_T3_request_070325.pdf

M: Peter Jones

S:???

802.3 YANG OS Project Ad Hoc Agenda: November 2025, Bangkok, Thailand

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“802.3 Motion” Motion

Move that IEEE 802.3 YANG project Ad Hoc approve the draft motion on the previous page subject to last minute changes during this week.

M: Jon Lewis

S: Ulf Parkholm

Motion passes by unanimous consent

802.3 YANG OS Project Ad Hoc Agenda: November 2025, Bangkok, Thailand

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IEEE 802.3 YANG OS Project Ad Hoc Project Request Slide Highlights



IEEE SA Open Source Committee (OSCom)

Open Source Project Request

Title: IEEE 802.3 YANG Modules

OS Project Lead/POC: Peter Jones - petejone@cisco.com

Last updated January 2023



IEEE 802.3 YANG OS Project Ad Hoc Project Request Description

The IEEE 802.3 Working Group (hereafter the WG) has a companion document (IEEE Std 802.3.2) which defines YANG models (see Note 1) for the Clause 30 management interface definitions in IEEE Std 802.3. Clause 30 defines an abstract management interface which is “independent of any particular management application or management protocol”.

IEEE Std 802.3.2 is a separate document requiring a separate and parallel project to update any models affected by an amendment or revision of IEEE 802.3. Only a small subset of the Working Group participants have the interest and skills to define YANG models. In the broader industry, YANG models are often defined by people with different skill sets to many participants in the Working Group.

In the broader industry, YANG models are often defined by people with different skill sets to many participants in the Working Group. The IETF Network Modeling Working Group (<https://datatracker.ietf.org/wg/netmod/about/>) is responsible for the specification of the YANG data modeling language, core YANG models, guidelines for developing YANG models and other related topics.

The goals of this project are to use the IEEE Open Source model to:

- ***provide models contemporaneously with publication of IEEE Std 802.3 amendments and revisions***
- ***improve participation from the broader industry***
- ***improve the ability to update the models based on feedback from the broader industry***

IEEE 802.3 YANG OS Project Ad Hoc Project Request Description (cont.)

The project will be a Tier 3 project, neither IEEE 802.3 nor IEEE 802.3.2 will reference the models from the Open Source project. To address the needs of standards groups that wish to reference YANG models for IEEE 802.3 specified in a standard, the 802.3 YANG OS group intends to periodically (e.g., every three years) draw from the latest release of models from the 802.3 YANG project for an 802.3.2 revision project.

The repository for the project will be “seeded” with the models defined by IEEE Std 802.3.2-2025. There are no LOAs filed on IEEE Std 802.3.2-1019, or IEEE Std 802.3.2-2025.

The project lead will obtain CLAs from all significant contributors to the models in IEEE Std 802.3.2-2019 and IEEE Std 802.3.2-2025 before those models may be added to the project repository.

Note 1: YANG is a data modeling language specified in RFC 7950. YANG is used to model the configuration and state data of network elements as part of a network management solution.

IEEE 802.3 YANG OS Project Ad Hoc Project Request Slide Highlights

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.

IEEE 802.3 YANG OS Project Ad Hoc Project Request Slide Highlights

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.

IEEE 802.3 YANG OS Project Ad Hoc Project Request Slide Highlights

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.)

IEEE 802.3 YANG OS Ad Hoc

What next?

Submit the OSCom project request

Work with OSCom staff to adjust the request as needed.

Assuming the request is approved

Write additional documents (e.g., governance document)

Fill out roster of Ad Hoc/project staff (e.g., additional maintainers)

Seek CLAs for existing modules

Spin up the GitLa site.

Etc etc etc

Questions?

Thank you!

References etc

OSCom Home Page

<https://standards.ieee.org/about/bog/oscom/>

OSCom Operations Manual

https://standards.ieee.org/wp-content/uploads/import/documents/other/OSCOM_Operations_Manual.pdf

OSCom Maintainers Manual

<https://opensource.ieee.org/community/manual>

End of document