

OpenLAN PG

OpenLAN Switching Subgroup

Open and Disaggregated Wired LAN Switching

This Project Subgroup Charter establishes the purpose, project scope, and intellectual property license terms applicable to the Project described below (the “Project”). Only Participants whose Authorized Representative executes or otherwise agrees to the OpenLAN Project Group Charter and this Subgroup Charter are permitted to participate in this Subgroup in accordance with the TIP Bylaws.

TIP Board of Directors Approval Date: December 19, 2023

Charter Effective Date: January 4, 2024

1. PG SUBGROUP NAME

OpenLAN Switching (“OLS”)

2. PURPOSE

Wi-Fi & Ethernet are the ubiquitous technologies used for business networks in a wide range of verticals (MDU, education, retail, hospitality, public venues, carpeted office, etc.) and have become mission critical for SMB’s, enterprises and many other businesses, connecting an ever-growing number of devices and applications onto the internet.

The mission of OpenLAN Switching (OLS) is to create a rich open ecosystem of interoperable solutions including Whitebox Ethernet switches and native cloud management compatible with OpenWiFi, thereby enabling end-to-end system capabilities to build, manage and deploy complete local area networks, accelerating innovation by providing choice and reducing vendor lock-in, reducing the barrier to entry for new suppliers, and improving industry collaboration.

3. SUBGROUP SCOPE

The OpenLAN Switching Subgroup is a dedicated open-source community for the design, development and testing of local area open and disaggregated systems consisting of Ethernet switches and native cloud management.

The group is developing a common technology stack foundation for community members to leverage in creating a diverse set of solutions for the market with members developing differentiated offerings unique to their verticals on top of the shared common tech stack.

The group will focus on the iterative development, validation, and contribution to OpenLAN Switching:

- Manage a development roadmap of new solutions, features and capabilities for OLS driven by community interests.
- Develop ecosystem of Whitebox hardware or compatibility with switching hardware that is suitable for OLS use cases and verticals
- Contribute software requirements, design artifacts, architectures, APIs, data models, source code and workflows to the group open-source repositories and project Wiki.
- Reference to and reuse of existing industry standards and available components as appropriate.
- Availability of automated testing in labs designed to TIP standards to validate OLS systems core components.

- Solution hardening by engaging in field trials (Service Provider, OEMs, ODMs, business verticals, etc.)

General Deliverables

- **Rich Whitebox hardware ecosystem:**
 - Curate a range of supported Ethernet switches (12/24/48 port, 1G and multi-gig, PoE and non-PoE)
 - Develop group requirements and recommendation for common ODM SKU's
 - Validation and badging of ODM commercial SKU's to be compliant with "OLS" defined requirements
 - Select open hardware designs to be used as reference platforms
- **Rich pre-integrated and validated open source software stack:**
 - Curated open-source network operating systems
 - Support for 3rd party operating systems (closed NOS integrated with unified Mgmt. protocol)
 - De Facto standardized cloud management protocol (validated client / server implementation)
 - CloudSDK (foundation software framework for development of cloud management systems)
 - Common Telco/Enterprise system capabilities in open source (802.1q, PoE, VxLAN, etc.)
- **Operation of community infrastructure services:**
 - Centralized Certificate Authority (CA) infrastructure for OpenLAN Switching enabled systems with self service capabilities (API & GUI)
 - Global secure Zero Touch Provisioning (ZTP) using the TIP CA framework
 - Continuous integration, deployment & automated testing pipeline for the open source software:
 - Standardized TIP images for whitebox devices
 - CloudSDK microservices
 - Utilities (load-generator, test-automation code, etc.)

Delivery Process

- Software development, including continuous integration and automated test, will be managed, tracked, and delivered by industry standard, open-source practices including defined roadmap, feature backlog, defined agile delivery sprints, standup meetings and other common practices
- System design and validation artifacts will be managed, tracked and delivered via industry standard, open-source practices and published in the project group tools (JIRA/Wiki/GitHub)

4. COLLABORATION

The Subgroup will reside under the OpenLAN Project Group and collaborate, as necessary, with other OpenLAN Subgroups.

The OpenLAN PG, including OLS, will engage and collaborate with other TIP Project Groups as appropriate. A key driver of this collaboration will be the integration and cloud compatibility with OpenWiFi along with public availability of the software, test automation and system validation code and documentation artifacts contributed to the OpenLAN Switching group.

In addition, the group will collaborate with and reuse existing software components, as appropriate, from other industry groups related to network software and infrastructure such as:

- Wireless Broadband Alliance (<https://wballiance.com/>)
- OpenWRT (<https://openwrt.org/>)
- OCP & Linux foundation (around SAI/SONiC for switching)
- FreeRTOS
- OpenLAN sub-groups (OpenWiFi & OpenLAN Business Group)

5. SUBGROUP LEADS AND CO-LEADS

The Subgroup will have a minimum of one and a maximum of three designated Leads/Co-Leads to oversee and guide general group activities. These Leads/Co-Leads will report and align upwards into the general OpenLAN Project Group.

The Lead/Co-Lead may solicit candidates for and ultimately be responsible for appointing Software Project Maintainer(s).

6. SOFTWARE PROJECT Maintainer(s) responsibilities

The Maintainer(s), according to the Telecom Infra Project IPR Policy, have the following responsibilities:

- The Maintainer(s) will coordinate the Contributions of Contributors (including accepting or rejecting proposed Contributions), the hosting of the Project, and handling of pull requests in accordance with the then-current TIP Guidelines for Maintainers for TIP Software Projects
- The Maintainer(s) will determine practices for releases of updates subject to approval by the Board of Directors or an Administrative Committee formed in accordance with the TIP Bylaws
- The Maintainer(s) have the additional responsibilities described in this Charter and as may be delegated to him or her from time to time by the TIP Board of Directors, including:
 - Ensuring that all Contributors' Authorized Representatives have executed the TIP Software Contribution and License Agreement
 - Tracking all Contributions submitted including the date of submission, the entity responsible for the submission, and whether the Contribution was accepted, with or without modification, or rejected
 - Appointing and managing Committers, if any, in accordance with the then-current TIP Guidelines for Maintainers for TIP Software Projects
 - Coordinating with TIP legal counsel to ensure compliance with all third-party software licenses including free and/or open-source software licenses, as necessary

7. SERVICES PROVIDED BY TIP

- GitHub repositories
- Atlassian Suite (at time of writing, Jira, Confluence)
- Participant collaboration suite (at time of writing, Hivebrite)
- Slack or equivalent instant messaging and collaboration suite
- Zoom or equivalent video collaboration suite
- Subgroup Email to communicate with OpenWiFi members

8. INITIAL SOURCE CODE CONTRIBUTION

- OpenLAN Switching uCentral agent source code under Standard 3-clause BSD License
- Supporting source code documentation under TIP Document IPR Policy
- Source Code and [Documentation links](#)

9. SOFTWARE PROJECT TERMS

The OpenLAN Project Group Charter establishes the purpose, project scope, and intellectual property license terms applicable to the software projects undertaken within its Subgroups, including this OLS Subgroup. Terms relating to Licensing, contribution, and Deliverables are as set forth in the OpenLAN Project Group Charter.