

Technical Charter (the “Charter”)

for

Streaming Networks Analytics System a Series of LF Projects, LLC (“SNAS.io”)

This charter (“Charter”) for Streaming Networks Analytics System a Series of LF Projects, LLC (the “Project”) sets forth the responsibilities and procedures for technical contribution to, and oversight of, the SNAS.IO project, which has been established as a series of LF Projects, LLC (“LF Projects”). LF Projects, LLC is a Delaware series limited liability company. All contributors to the Project must comply with the terms of this Charter.

1. Mission and Scope of the Project

- a. The mission of the Project is to:
 - i. Provide network routing topologies for software defined (e.g. NFV) applications;
 - ii. Evolve network management and automation to include realtime network routing topologies and changes within those topologies over time;
 - iii. Enable Internet researchers and data sciences by providing quality and reliable Internet routing data; and
 - iv. Evolve network routing data collection to be real-time and streaming based utilizing streaming analytics to identify changes, perform de-duplication, and data enrichment.
- b. The scope of the Project includes software development under an OSI-approved open source license supporting the mission, including documentation, testing, integration and the creation of other artifacts that aid the development, deployment, operation or adoption of the Project’s codebases.

2. Technical Steering Committee

- a. The Technical Steering Committee (the “TSC”) will be responsible for all technical oversight of the open source Project.
- b. The TSC voting members will consist of the Project’s Committers. The Committers of the Project will be published in the Project repository

(<https://github.com/snasio>). The TSC may choose an alternative approach by documenting such approach in the CONTRIBUTING file.

- c. Any meetings of the Technical Steering Committee are intended to be open to the public, and can be conducted electronically, via teleconference, or in person.
- d. TSC projects generally will involve Contributors and Committers. The TSC may adopt or modify roles so long as the roles are documented in the CONTRIBUTING file. Unless otherwise documented:
 - i. Contributors include anyone in the technical community that contributes code, documentation, or other technical artifacts to the Project's code base;
 - ii. Committers are Contributors who have earned the ability to commit code and contributions to a main branch to a project with the Project code base; and
 - iii. A Contributor may become a Committer by a majority approval of the existing Committers. A Committer may be removed by a majority approval of the other existing Committers.
- e. Technical participation in the Project is open to anyone so long as they abide by the terms of this Charter.
- f. The TSC may (1) establish work flow procedures for the submission, approval, and closure/archiving of projects, (2) set requirements for the promotion of Contributors to Committer status, and (3) amend, adjust, refine and/or eliminate the roles of Contributors and Committers, and create new roles, and publicly document any TSC roles, as it sees fit.
- g. The TSC may elect a TSC Chair, who will preside over meetings of the TSC and will serve until their resignation or replacement by the TSC. The TSC Chair, or any other TSC member so designated by the TSC, will serve as the primary communication contact between the Project and the LF Networking Fund of The Linux Foundation.
- h. Responsibilities: The TSC will be responsible for all aspects of oversight relating to the Project, which may include:
 - i. coordinating the technical direction of the Project;
 - ii. approving project or system proposals (including, but not limited to, incubation, deprecation, and changes to a sub-project's scope);
 - iii. organizing sub-projects and removing projects;
 - iv. planning releases and setting milestones for releases;

- v. creating sub-committees or working groups to focus on cross-project technical issues and requirements;
- vi. appointing representatives to work with other open source or open standards communities;
- vii. communicating with external and industry organizations concerning Project technical matters;
- viii. appointing representatives to work with other open source or open standards communities;
- ix. establishing community norms, workflows, or policies including processes for contributing (to be published in the CONTRIBUTING file), issuing releases, and security issue reporting policies;
- x. coordinating with Series Manager to resolve matters or concerns that may arise with regard to intellectual property or how to follow the IP Policy for the Project;
- xi. discussions, seeking consensus, and where necessary, voting on technical matters relating to the code base that affect multiple projects; and
- xii. coordinating any marketing, events, or communications regarding the Project with the LF Projects Manager or their designee.

3. TSC Voting

- a. While the Project aims to operate as a consensus based community, if any TSC decision requires a vote to move the Project forward, the voting members of the TSC will vote on a one vote per voting member basis.
- b. Quorum for TSC meetings requires at least a majority of all voting members of the TSC to be present. The TSC may continue to meet if quorum is not met, but will be prevented from making any decisions at the meeting.
- c. Except as provided in Section 7.c. and 8.a, decisions by vote at a meeting require a majority vote of those in attendance, provided quorum is met. Decisions made by electronic vote without a meeting require a majority vote of all voting members of the TSC.
- d. In the event a vote cannot be resolved by the TSC, any voting member of the TSC may refer the matter to the Series Manager for assistance in reaching a resolution.

4. Compliance with Policies

- a. This Charter is subject to the Series Agreement for the Project and the Operating Agreement of LF Projects. Contributors will comply with the policies of LF

Projects as may be adopted and amended by LF Projects, including, without limitation the policies listed at <https://lfprojects.org/policies/>.

- b. The TSC may adopt a code of conduct (“CoC”) for the Project, which is subject to approval by the Series Manager. Contributors to the Project will comply with the CoC or, in the event that a Project-specific CoC has not been approved, the LF Projects Code of Conduct listed at <https://lfprojects.org/policies/>.
- c. When amending or adopting any policy applicable to the Project, LF Projects will publish such policy, as to be amended or adopted, on its web site at least 30 days prior to such policy taking effect; provided, however, that in the case of any amendment of the Trademark Policy or Terms of Use of LF Projects, any such amendment is effective upon publication on LF Project’s web site.
- d. All participants must allow open participation from any individual or organization meeting the requirements for contributing under this Charter and any policies adopted for all participants by the TSC, regardless of competitive interests. Put another way, the Project community must not seek to exclude any participant based on any criteria, requirement, or reason other than those that are reasonable and applied on a non-discriminatory basis to all participants in the Project community.
- e. The Project will operate in a transparent, open, collaborative, and ethical manner at all times. The output of all Project discussions, proposals, timelines, decisions, and status should be made open and easily visible to all. Any potential violations of this requirement should be reported immediately to the LF Projects Manager.

5. Community Assets

- a. LF Projects will hold title to all trade or service marks used by the Project (“Project Trademarks”), whether based on common law or registered rights. Project Trademarks will be transferred and assigned to LF Projects to hold on behalf of the Project. Any use of any Project Trademarks by participants in the Project will be in accordance with the license from LF Projects and inure to the benefit of LF Projects.
- b. The Project will, as permitted and in accordance with such license from LF Projects, develop and own all Project GitHub and social media accounts, and domain name registrations created by the Project community.
- c. Under no circumstances will LF Projects be expected or required to undertake any action on behalf of the Project that is inconsistent with the tax-exempt status or purpose, as applicable, of LFP, Inc. or LF Projects, LLC.

6. General Rules and Operations.

- a. The Project will:

- i. engage in the work of the project in a professional manner consistent with maintaining a cohesive community, while also maintaining the goodwill and esteem of LF Projects, LFP, Inc. and other partner organizations in the open source software community; and
- ii. respect the rights of all trademark owners, including any branding and trademark usage guidelines.

7. Intellectual Property Policy

- a. Participants acknowledge that the copyright in all new contributions will be retained by the copyright holder as independent works of authorship and that no contributor or copyright holder will be required to assign copyrights to the Project.
- b. Except as described in Section 7.c., all code contributions to the Project are subject to the following:
 - i. All new inbound code contributions to the Project must be made using the Apache License, Version 2.0 (available here: <https://www.apache.org/licenses/LICENSE-2.0>) (the “Project License”).
 - ii. All new inbound code contributions to the Project must also be accompanied by a Developer Certificate of Origin (<http://developercertificate.org>) sign-off in the source code system that is submitted through a TSC-approved contribution process which will bind the authorized contributor and, if not self-employed, their employer to the applicable license;
 - iii. All outbound code will be made available under the Project License.
 - iv. Documentation will be received and made available by the Project under the Creative Commons Attribution 4.0 International License (available at <http://creativecommons.org/licenses/by/4.0/>).
 - v. The Project may seek to integrate and contribute back to other open source projects (“Upstream Projects”). In such cases, the Project will conform to all license requirements of the Upstream Projects, including dependencies, leveraged by the Project. Upstream Project code contributions not stored within the Project’s main code repository will comply with the contribution process and license terms for the applicable Upstream Project.
- c. The TSC may approve the use of an alternative license or licenses for inbound or outbound contributions on an exception basis. To request an exception, please describe the contribution, the alternative open source license(s), and the justification for using an alternative open source license for the Project. License exceptions must be approved by a two-thirds vote of the entire TSC. Contributed

files should contain license information, such as SPDX short form identifiers, indicating the open source license or licenses pertaining to the file.

8. Amendments

- a. This charter may be amended by a two-thirds vote of the entire TSC and is subject to approval by LF Projects.