

Technical Community Document

Relentlessly focused on data IO speed and efficiency for more flexible and scalable networks and storage

Introduction

This Technical Community Document sets forth additional details concerning the operation of the technical community of FD.IO Project a Series of LF Projects, LLC (the “Project”). Capitalized terms not defined in the Technical Community Document will have the meanings ascribed to them in the technical charter for the Project. The Technical Community Document may be amended from time to time by the TSC, and is subject to the terms of the Project’s technical charter.

1 Guiding Principles

FD.IO will operate transparently, openly, collaboratively, and ethically. Project discussions, proposals, timelines, and status must not merely be open, but also easily visible to outsiders.

FD.IO will consist of multiple, independent, projects.

Each project will have a single code repository, and its own set of Committers who have exclusive rights to commit code into that project’s repository. Being accepted as a Committer on one project does not grant commit rights to other projects.

Technical decisions (including release decisions) for a project should be made by consensus of that project’s Committers. If consensus cannot be reached, decisions are made by a majority vote of a project’s Committers. Committers on a project may, by majority vote, delegate (or revoke delegation of) any portion of the project’s decisions to an alternate open, documented, traceable decision-making process.

Nothing in this Technical Community Document shall be interpreted in such a way as to violate these principles.

2 Structure of the Technical Community

The Technical Community consists of multiple projects and a Technical Steering Committee that spans across all projects.

3 Per Projects

3.1 Project Roles

3.1.1 Contributor

A “Contributor” is someone who contributes code or other artifacts to a project. Contributors work with a project’s Committer and the project’s sub-community. A Contributor may be promoted to a Committer by the project’s Committers after demonstrating a history of meritocratic contribution to that project.

3.1.2 Committer

For each project there is a set of Contributors approved for the right to commit code to the source code management system (the “Committers”) for that project.

Committer rights are per project; being a Committer on one project does not give an individual committer rights on any other project.

The Committers will be the decision makers on all matters for a project including design, code, patches, and releases for a project.

Committers are the best available individuals, but usually work full-time on components in active development.

3.1.3 Project Technical Leader (“PTL”)

Each project will have one PTL. Each PTL has a term of one year, but may be removed at any time by majority vote of the project’s committers.

A single individual may serve as PTL for one or more projects.

3.2 Operations

3.2.1 Project Decision Making Process

Technical and release decisions for a project should be made by consensus of that project’s Committers. If consensus cannot be reached, decisions are by majority vote of a project’s Committers. Committers may, by majority vote, delegate (or revoke delegation) of any portion of such decisions to an alternate open, documented, and traceable decision making process.

3.2.2 Committer Lifecycle

3.2.2.1 Adding Committers

Initial Committers for a project will be specified at project creation.

Committer rights for a project are earned via code contribution and community trust. Committers for a project select and vote for new Committers for that project, subject to TSC approval.

New Committers for a project should have a demonstrable established history of meritocratic code contribution.

3.2.2.2 Removing Committers

A Committer may voluntarily resign from a project by making a public request to the PTL to resign.

A Committer for a project who is disruptive, or has been inactive on that project for an extended period (e.g., six or more months) may have his or her Committer status revoked by the project's Project Technical Leader (PTL) or by super-majority vote of the project's committers.

The Project Technical Leader is responsible for informing the Technical Steering Committee (TSC) of any committers who are removed or resign.

Former committers removed for reasons other than being disruptive may be listed as 'Emeritus Committers'. That title expresses gratitude for their service, but conveys none of the privileges of being a Committer.

3.2.3 Project Technical Leaders

A project is required to elect a PTL. The PTL acts as the de facto spokesperson for the project.

3.2.3.1 Project Technical Leader Candidates

Candidates for the project's PTL will be derived from the Committers of the Project.

Candidates must self nominate.

3.2.3.2 Project Technical Leader Voters

Only Committers for a project are eligible to vote for a project's PTL.

3.2.3.3 Project Technical Leader Election Mechanics

Election of a project's PTL shall use a multiple-candidate method, e.g.:

Condorcet: http://en.wikipedia.org/wiki/Condorcet_method; or

Single Transferable Vote:

http://en.wikipedia.org/wiki/Single_transferable_vote

3.3 Project Lifecycle

Projects have a lifecycle. That lifecycle is characterized by project 'states' and project 'state transitions'. In addition, all projects are required to be within the 'Scope' for FD.IO projects.

3.3.1 Project Scope

Project creation reviews approved by the TSC are limited to the following scope:

IO -Hardware/vHardware <-> threads/cores

Processing

Classify

Transform

Prioritize

Forward

Terminate

Management Agents

Control/Manage IO/Processing

Supporting Projects

Testing/Tools/Infrastructure

Integration with other systems

3.3.2 Project States

Project State	Description
Proposal	Doesn't exist yet, has no real project resources, but is proposed for review by the TSC
Incubation	Project has resources, but is recognized to be nascent
Mature	Project is a fully functioning open source project with resources in community roles and established cadence of releases
Core	Project is core to fd.io
Grouping	Project used to voluntarily 'group' together thematically related projects. Grouping projects have a Project Management Committee ("PMC"), which votes on its decisions including accepting new PMC members and accepting (or expelling) new projects into the grouping. PMC Members must be Committers of projects grouped by the Grouping Project, and their lifecycle is similar to those for Committers. Projects must vote to join a Grouping Project, and may at any time vote to leave a grouping Project.

Archived Project that has ben recognized as dead or abandoned, and has been archived, as it is no longer a going concern.

3.3.3 Project State Transitions

The valid state transitions and their associated reviews are:

From State	To State	Review
<null>	Proposal	
Proposal	Incubation	Creation Review
Incubation	Mature	Graduation Review
Mature	Core	Promotion Review
Proposal	Grouping	Group Creation Review
{Incubation, Mature, Core, Grouping}	Archived	Termination Review

3.3.4 Project Reviews

For each review, there will be a publicly visible wiki/web template filled out containing relevant review information.

The review document must be posted and announced for public comment for at least 2 weeks prior to the date the review is scheduled.

Revised ideally should be conducted in a manner that is sensitive to the global nature of the community (i.e., geography and time zone dispersion)

3.3.4.1 Creation Review

Proposal Posted and Announced for 2 weeks:

Name

Project Contact Name and Email

Repository Name, should be:

Lower case

Short

Suitable for use as a C identifier

Description

Scope

Initial Committers

Vendor Neutral

Meets Project Policies (including the requirements of the Project's technical charter).

Review by TSC and Approval

Creation reviews should be an evaluation of the TSC as to whether the proposal meets the mechanical criteria of:

Having specified the required information for the review

Being within the Project's technical charter, particularly scope

Having a clear and well-defined scope. A well defined scope should allow someone to clearly answer the following questions:

What work is in and out of scope of this project

What kinds of problems is this project seeking to solve

In addition the TSC is counseled to consider that too broad or all encompassing a scope can be unhealthy for the community at large, and thus to take that into consideration when approving project creation.

Project Infrastructure resources will be provisioned upon approval of a project's creation review.

3.3.4.2 Graduation Review

Graduation Proposal Posted and Announced for 2 weeks:

Working code base

Active Community

History of Releases (using Mature Release Process)

Committers vote on seeking graduation

Review by the TSC and Approval

Graduation reviews should be an evaluation of the TSC as to whether the proposal meets the mechanical criteria of:

Having specified the required information for the review

Having demonstrated a working code base

Having demonstrated a history of releases using the mature release process

3.3.4.3 Promotion Review

Promotion Proposal Posted and Announced for 2 weeks:

Statement of Centrality of Role

Project Technical Leader Name & Email

Committers vote to seek promotion

Review by TSC and Approval

Promotion reviews should be an evaluation of the TSC as to whether the Statement of Centrality of Role for the project truly rises to the level of being central to fd.io.

3.3.4.4 Grouping Review

Grouping Proposal Posted for 2 weeks

Name of Grouping Project

Scope of Acceptable Subprojects

Initial PMC members

At least two identified initial subprojects

i. Vote of Committers on initial subproject seeking inclusion

Review by the TSC and Approval

Grouping Reviews should be an evaluation of the TSC as to whether:

The Scope of the Subproject is well defined

Members of the initial PMC are Committers on the subproject to be included.

The proposed initial subproject have in fact voted to be included

3.3.4.5 Termination Review

Termination Proposal Posted and Announced for 2 weeks:

States reason for project termination being sought

Calls out impact on other projects, users, communities, and how those will be mitigated

Indicates where the project would be archived

Can be initiated by vote of project committers

Can be initiated by TSC or PMC of a grouping project containing that project if there are either no remaining committers for the project, or there have been no commits to the SCM in 18 months.

3.4 Mature Release Process

A Project's Committers make all decisions about Releases of that Project. However, to be eligible to be considered 'Mature', and project must demonstrate a history of following the Mature Release Process. The purpose of the Mature Release Process is to insure openness and maximum opportunity for participation. The idea is to have a simple, clear, public declaration of what a project intends to do and when, and what was actually done in a release cycle. Towards that end, a project following the 'Mature Release Process' should have a Release Plan published at the beginning of its release cycle by its committers, and a Release Review just prior to the project release.

Both Release Plan and Release Review documents are intended to be relatively short, simple, and posted publicly on the wiki to assist project in coordinating amount themselves and the general world in gaining visibility.

These should contain roughly the following sections:

3.4.1 Release Plan

Introduction

Release Deliverables

Release Milestones

Expected Dependencies on Other Projects

Compatibility with Previous Release

Themes and Priorities

Other

3.4.2 Release Review

Features delivered

Non-Code Aspects (user docs, examples, tutorials, articles)

Architectural Issues (if any)

Security Issues (if any)

Quality Assurance (test coverage, etc)

End-of-life (API/Features EOled in Release)

Summary of Outstanding Bugs

Summary of Standards Compliance

Delta between planed schedule and actual schedule

4 Technical Steering Committee (TSC)

4.1 TSC Roles

4.1.1 TSC Members

TSC Membership shall consist of:

Core project's Project Technical Leaders (PTLs).

A number of Committer-at-Large Elected Members to be set by the TSC.

4.1.2 TSC Chair

The TSC Member shall elect a TSC Chair.

4.2 TSC Operations

4.2.1 TSC Decision Making Process

Decisions of the TSC should be made by majority vote.

4.2.2 TSC Chair Elections

The TSC will elect from among TSC members, the TSC Chairperson.

4.2.2.1 TSC Chair Candidates

Candidates for a TSC Chair must be TSC Members.

Candidates must self nominate.

4.2.2.2 TSC Chair Voters

Only TSC Members are eligible to vote for TSC Chair.

4.2.2.3 TSC Chair Election Mechanics

Election of a TSC Chair shall use a multiple-candidate method, e.g.:

Condorcet: http://en.wikipedia.org/wiki/Condorcet_method; or Single Transferable Vote: http://en.wikipedia.org/wiki/Single_transferable_vote

4.2.3 Committer-at-large TSC Member Elections

4.2.3.1 Committer-at-large TSC Member Candidates

Candidates for a Committer-at-Large Membership on the TSC must be Committers on a fd.io project in good standing.

Candidates must self nominate.

4.2.3.2 Committer-at-large TSC Member Voters

All of the Committers on all fd.io projects vote together for Committer-at-Large members of the TSC.

4.2.3.3 Committer-at-large TSC Member Election Mechanics

The TSC shall establish a clear procedure for nomination and election of Committer-at-Large members.

Election of a TSC Chair shall use a multiple-candidate method, e.g.:

Condorcet: http://en.wikipedia.org/wiki/Condorcet_method; or Single Transferable Vote: http://en.wikipedia.org/wiki/Single_transferable_vote

4.3 Responsibilities

The TSC is responsible for, pursuant to the requirements of the Project's technical charter:

- Foster cross project collaboration

- Foster relationships and collaboration with other communities.

- Organize cross project activities

- Hold project lifecycle reviews for projects (Creation Reviews, etc.).

- Approve projects' selection of new Committers.

4.4 Coordinate Releases

The TSC may choose to organize a Coordinated Release. Such a Coordinated Release may impose additional requirements on projects that choose to participate in it. Projects must choose to participate; they cannot be compelled to do so.

Should the TSC choose to create a Coordinated Release it should provide, up front a Coordinated Release Plan (CRP) detailing:

- Introduction

- Requirements for Participation

 - The scheduling, practice, quality (but not technical content) requirements for a project to participate. In practice these are expected to build upon the 'Mature' project standards.

- Milestones & Release Candidates

 - Dates and requirements for milestones and release candidates

 - This should include by which Milestone a Project must opt in to join

 - This should include by which Milestone freezes of various sorts (for example API freeze) need to happen

- Participating Projects

 - Projects which have opted into the Coordinated Release

- Communication Channels

5 Evolution of Technical Community Document

The TSC has ability to amend this Technical Community Document, subject to the technical charter of the Project.

The normal amendment process is for either the TSC or the Committers-at-Large to propose changes using simple majority of the full TSC to resolve conflicts.