LF Standards & Community Specifications

A brief intro for OSS projects

A Standard is another way of saying “Agreement”

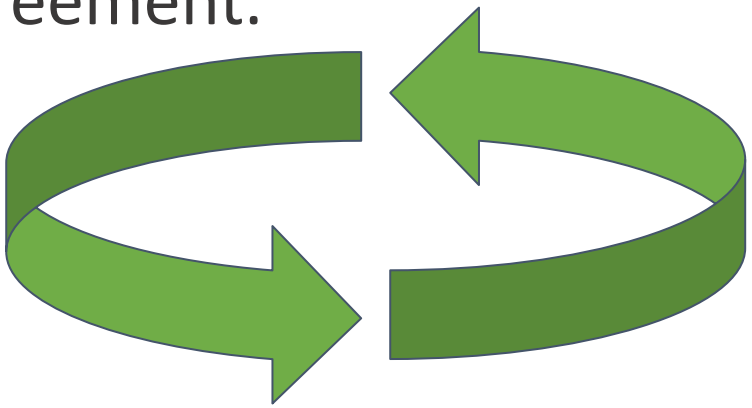
Community Standard 👷

De Facto Standard 🎉

Industry Standard 📑

National, De Jure, & Harmonized Standards 🌐

Standardization is the process through which we reach agreement.



Higher levels of standardization require more agreement.

Specs are like “recipe” documents

Not the cake itself, but it will tell you how to make/implement one

- What you MUST, MUST NOT, SHOULD, SHOULD NOT (and sometimes MAY) do
- What other specs you must use/conform to as a dependency
- What is normative vs. non-normative

A good specification makes implementation easier:

- Includes clear definitions and is free of unnecessary jargon
- Includes Conformance criteria, other specifications incorporated by reference
- Uses Notes (non-normative) to add clarity or examples where needed
- Includes other important information like Spec status (e.g. Draft, Final Deliverable), licensing information

Should you develop your spec into a standard?

Benefits of standards:

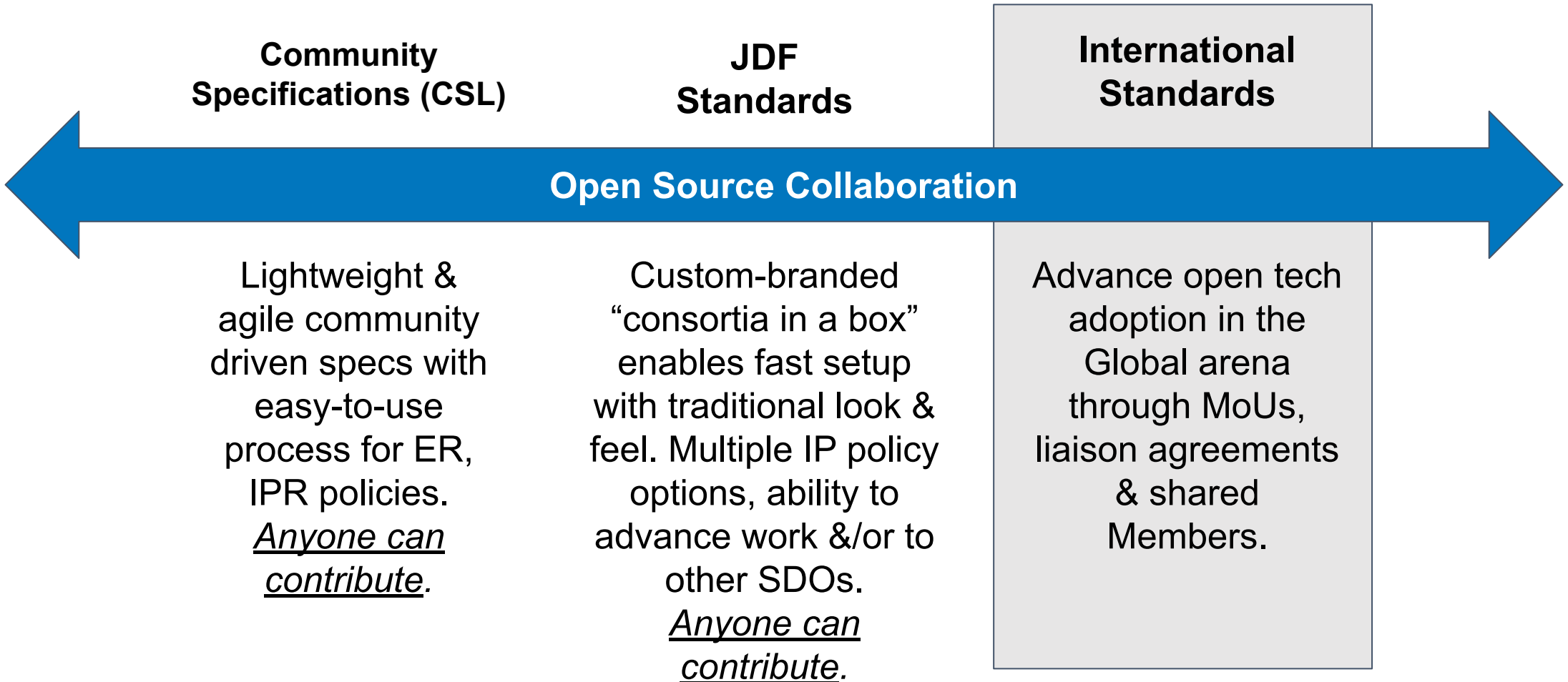
- ★ To create new markets for your tech
- ★ To access markets / customers that are harder to reach
- ★ To drive interoperability or other benefits
- ★ To signal a technology's maturity, stability, consumability
- ★ To help build commodity or utility-level infrastructure

What do you need?

See ANSI Essential Requirements for Due Process

- ➔ A documented, auditable decision-making process & process for recording IPR commitments
- ➔ Implementations!
- ➔ A well-written specification document
- ➔ *A vision for where you want to be - what problem does standardization solve for your community*

Think of a scale, not a binary



Standards Modes at the LF

Community Specification License Mode

- GitHub-driven collaboration model that is popular among OSS projects developing specs alongside OS codebases.
- Participants join the Working Group upon making a contribution to the repo(s).
- Similar in feel to OSS governance with some amendments to meet standards due process requirements.

JDF Traditional Mode

- Flexible collaboration model with the look and feel of technical committees at formal SDOs.
- Choice of well-known patent licensing options encourages adoption and participation from a wide range of organizations.
- Easy to collaborate with other SDOs and advance work for international standardization.

The Community Specification License

https://communityspec.dev

- Many communities want to develop specifications “just like open source” - with a repository anyone can easily contribute to.
- Specifications entail a different licensing model - most specification communities want all participants bound to the final specification output, which is different from making IP commitments limited to “just your contribution”.
- Solution: We published a base set of governance and licensing templates for communities creating specifications to clone/fork into their own repositories to start a specification development effort as easily as an open source project.
- The Community Specification templates incorporate the terms and processes required for standards and specification development. It provides the basis to take your specification to other standards bodies, including international standards bodies, for formal standardization if your community desires to pursue those options.

JDF allows stakeholders to quickly develop specifications

- A **standards body** is the legal organization that provides a neutral home to the collaboration, often including financial and legal support, guardrails against antitrust issues, managing copyrights and other intellectual property terms that might bear on the specification.

- Many will say the most important role of a standards body is to provide a neutral governance model that enables inclusive participation from all parties, where no one organization controls the specification.

- Joint Development Foundation provides the boilerplate agreements and pre-defined governance models necessary for an industry standards body to get to work fast, while providing the structure and assurance necessary to reach higher levels of standardization.

Joint Development Foundation Projects Overview

In 2019 the Joint Development Foundation joined the Linux Foundation family. JDF projects can be thought of as a standards development organization “in a box,” with templates and governance structures that allow for the rapid creation and stand-up of a standard or specification effort.

JDF was successfully renewed as an ISO/IEC PAS Submitter in 2021.

In a JDF specification project:

- members agree to the project governance and licensing terms through the execution of membership agreements;
- draft specifications are developed within “working groups”; and
- the “steering committee” approves final specifications

Highlights from our standards portfolio

- **Alliance for Open Media AV1 Video Codec**
  Royalty-Free video compression codec with open source reference implementation - this is everywhere.
- **OpenChain ISO/IEC 5230**
  One of our first projects to go through the ISO JTC1 submission process, OpenChain has been widely implemented by the likes of ARM, Ericsson, Google, Hitachi, Meta, Microsoft, Qualcomm and Samsung, along with many other global companies.
- **3MF File Format Specification DIS 25422**
  Our most recent specification to go through the JTC1 PAS process; file format and components for 3D Manufacturing.
- **Open Container Initiative - Community Specification**
  The OCI specifications for software containers are the basis of all Docker-based applications. The specifications are implemented by every company in the world using software containers (either in cloud or embedded devices), including every public cloud provider in the world.
- **Software Package Data Exchange (SPDX) ISO/IEC 5962**
  An international open standard with a cadre of open source tools supporting its adoption. SPDX is maintained by open source and standards professionals working together in the open.
- **C2PA Content Credentials Specification**
  Went from launch to published v.1 spec in under a year; v2.1 published & shipping in new Samsung phones, Nikon & Leica cameras, hosted Cloudflare images, LinkedIn media, & more.