Looking Forward to 2021 and Beyond

Jim Zemlin / The Linux Foundation
2020 proved that we need to work together in tough times.
After a VERY challenging 2020, Linux Foundation is off to its best start ever

- We exceeded 2M trainings and exams delivered in January
- We are adding new members at our fastest rate ever: more than one a day
- We are adding 2-3 new projects a week: 34 launched or will launch in 1Q21
- We Announced A Racial Justice Initiative
- Launched a new Security Initiative for the Linux Kernel
- Announced a New Self Sovereign Identity Effort
- Started a new 5G R&D Effort and a new 5G Packet Core Effort (Magma)
- Launched a Mobile Native Foundation to make it easier to build large scale mobile apps
- We created publications on Supply Chain Security and more
- AND… Today we are announcing several other new initiatives
In 2021 we are privileged home to some of the most important technology projects on earth (and mars)

<table>
<thead>
<tr>
<th>Category</th>
<th>Projects</th>
</tr>
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<tbody>
<tr>
<td>Security</td>
<td>Let's Encrypt, Core Infrastructure Initiative, OpenSSF, Falco, .rtp</td>
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<tr>
<td>Networking</td>
<td>DLF Networking, ONAP, Open Daylight, Anuket, ClusterDuck Protocol, DENT, DANOS</td>
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<td>Cloud</td>
<td>Cloud Native Computing Foundation, kubernetes, Argo, envoy, Kudo, Crossplane, Cloud Foundry</td>
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<td>Automotive</td>
<td>Automotive Grade Linux, ELISA, KernelCI</td>
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<td>Blockchain</td>
<td>Hyperledger, Hyperledger Fabric, Hyperledger Sawtooth, Accord Project, DIF</td>
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<td>Edge/IoT</td>
<td>DLF Edge, Yocto Project, Zephyr, ACRN, Dronecode, Fledge, Sound Open Firmware, OpenEEW</td>
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<td>Web</td>
<td>Node, OpenJS Foundation, GraphQL, Appium, jQuery, DOJO, ESLint</td>
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<td>AI</td>
<td>DLF AI, ONNX, Delta Lake, ForestFlow, JanusGraph, Kepler.gl, Ludwig, Sodo</td>
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<td>Film</td>
<td>AWS, OpenColorIO, OpenVDB, OpenEXR, OpenEXR, OpenEXR, OSL, OSL, OpenEXR</td>
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<td>CI/CD</td>
<td>Jenkins, Spinnaker, Tekton, Tern, StackStorm, Vitess, etcd, SPIRE</td>
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<td>Hardware</td>
<td>RISC-V, OpenPOWER, Chips Alliance, Unimatrix, 3MF Consortium, Open Manufacturing Platform</td>
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<tr>
<td>Standards</td>
<td>Alliance for Open Media, OpenChain, Community Data License Agreement, Joint Development Foundation, Cloud Information Model, CHAOSS</td>
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From Open Source Repo to International Standards:
We have a range of collaboration tools for collective innovation

**Capabilities Required to Engage:**
- Legal coordination and structures
- Industry vertical experience
- Technical sector experience
- Successful track record

**Capabilities Required to Scale:**
- Self-service options
- Umbrella and flexible structures
- Membership model & network effects
- Systems and process focus
- Rigorous IP mgmt and security focus
SPDX accepted as international standard for how open source metadata is shared
As a critical part of the global tech supply chain, creating a reliable, secure, and sustainable technology effort requires many moving parts.
We created LFx to help our communities innovate and scale
OLFX | Individual Dashboard
**Course Learning Objectives**

The course will cover the following:
- Select and configure the development system.
- Provide an overview of Linux kernel repositories and releases.
- Understand git basics – checking out kernel repositories and working with them.
- Build your first kernel and install it.
- Understand the Linux kernel Contributor Covenant Code of Conduct.
- Familiarize yourself with the Linux kernel Enforcement Statement.
- Write kernel patches and test them.
- Understand the do's and don'ts of the communications with the kernel community.
- Know who to and how to send patches (wbekpatch.pl and get_maintainers.pl).
- Re-work patches and act on feedback from reviewers.
Open source challenges in 2021

1. Security
2. Diversity
3. Getting Together in Person Again
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Open Source Security Foundation (OpenSSF) since October

- As of Feb: 36 member organizations, 263 individual participants
- Lots of accomplishments since 2020-08-03 launch, e.g.:
  - Free edX courses on how to develop secure software - 2,254 registrants as of Feb 2021
  - CII Best Practices badge - >3600 participating projects, >500 passing badges
  - OSSF Scorecard - simple automated evaluation of OSS project
  - Developed PoC security metric dashboard for OSS projects (building on badge & scorecard)
  - Begun development of curated, community-driven collection of security reviews of OSS
  - “CVE benchmark” - dataset of vulnerabilities & fixes, to better benchmark security tools
Announcing new OpenSSF members

New members dedicated to helping advance open source security education and best practices.
Report on the 2020 FOSS Contributor Survey

- “Report on the 2020 FOSS Contributor Survey”
  - Collaboration between LF & Laboratory for Innovation Science at Harvard (LISH)
  - Incorporated into OpenSSF working group on securing critical projects
  - Focused on security & sustainability
  - Analyzed survey responses from 1,196 participants (not everyone completed every question)

- Top three motivations for contributors are non-monetary
  - Top motivations: adding needed feature/fix, enjoying learning, and creative/enjoyable work
  - Majority (74.87%) already employed full-time, ~half (51.65%) paid to develop OSS

- OSS security should receive more effort, burden should be beyond contributors
  - Providing bug/security fixes, audits, simplifying adding security tools to CI pipelines, memory safety...

- Enhance trend of corporate support for employees’ contribution to FOSS
  - It’s improved over 10 years, but 17.5% reported unclear policies, 5.6% unaware of policies

Open source challenges in 2021

1. Security
2. Diversity
3. Getting Together in Person Again
Programs to support diversity in our communities

- Inclusive Naming Initiative
- Software Developer Diversity and Inclusion (SDDI) project
- Expanded Formal Mentorship Program
- LiFT Scholarship program
- Live Online Mentorship Program
- Diversity Scholarships & Travel Funding for Events
- Inclusive Speaker Orientation Course (created with National Center for Women in IT)
- Partnership with Blacks in Technology
- Ally Workshops
- Call for Code Racial Justice Initiative
- And more…. 
Inclusive Naming Initiative

Helping projects and companies make consistent, responsible choices to remove harmful language.

Priyanka Sharma
General Manager, Cloud Native Computing Foundation
Creating events that are welcoming to all

- No all-male panels, all-male speaker line-ups or all-male keynote line-ups
- Request speakers to take our Inclusive Speaker Orientation, created in collaboration with the National Center for Women & Information Technology
- Onsite Nursing Rooms
- Free, onsite Child Care
- Onsite prayer rooms, quiet rooms and ‘zen zones’
- Attendee Communication Preference Stickers & Pronoun Stickers
- Non-Binary Restrooms
- Gender Neutral Event Shirt Sizing

- Accessibility—captioning on video recordings, wheelchair accessible venues, food allergy management, information on event websites on wheelchair and medical equipment rental
- Non-Alcoholic Beverages available at all social events
- Diversity & Inclusion Handouts with an overview of our onsite offerings and a reminder on our Code of Conduct
- Event Code of Conduct Signage prominently displayed onsite
- Special Events to Promote Diversity + Inclusion (such as the Better Together Diversity Social, Women in Open Source lunch, Speed Mentoring Programs and Kids Coding Workshops)
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Virtual Event Fatigue
Removing your cat filter

1. While in a Zoom meeting with your video on, click the Up Arrow next to the Stop Video icon.

2. Select a different camera setting, or try selecting each camera listed until you return to normal. For example, for macOS users, click FaceTime HD Camera (Built-in).
   The cat filter will now be removed and you can go back to your purr-fessional meeting.

Read other great tips on how to use cool Zoom video features.
Call for Code for Racial Justice

- Police & Judicial Reform and Accountability
  - Incident Accuracy Reporting System (IARS)
  - Fair Change
  - Open Sentencing
- Policy & Legislation Reform
  - Truth Loop
  - Five Fifths Voter
  - Legit-Info
- Diverse Representation
  - TakeTwo

Special Guest:
Jo Ann Hill
Open Sentencing Project & IBM
Mobile Native Foundation

Bringing developers together to improve processes and technologies that support large-scale Android and iOS applications.

Special Guest:

Keith Smiley

Lyft
Servo Project

- Modern and open web engine for building applications and immersive experiences using web technologies.
- Started by Mozilla in 2012 and brought to the Linux Foundation in November 2020 to expand the contributor community

Special Guest:
Alan Jeffrey
Servo Project technical chair
OpenChain ISO 5230 Update

Special Guest: Shane Coughlan
General Manager
OpenChain Project
Sigstore Announcement

Linux Foundation Announces Free sigstore Signing Service to Confirm Origin and Authenticity of Software

sigstore improves the security of the software supply chain by enabling the easy adoption of cryptographic software signing backed by transparency log technologies.

Special Guest:

**Luke Hinds**
*Red Hat*
Thank you.