# how a hardware company supports open source software

**Ed Vielmetti & Fen Aldrich**
**Equinix**

# open source

makes **good business sense**

needs **more than just code**

thrives when it **has EVERYTHING that it needs**

# why has open source software become so important?

- **Ubiquitous**: Has become integrated in all stages of software development.

- **Foundational:** Has grown with all major technology trends (mobile, cloud, AI)

- **Influential**: IT leaders are more likely to select a vendor that contributes to OSS.

# 4 out of 5 enterprises agree!

## 82%
more likely to select a vendor who **contributes to the open source community**

## 80%
expect to **increase their use of enterprise open source software** for emerging technologies.
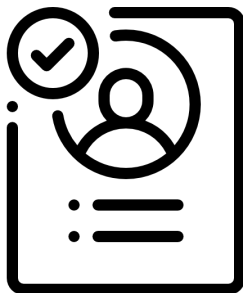
## 89%
believe enterprise open source **is as secure or more secure** than proprietary software
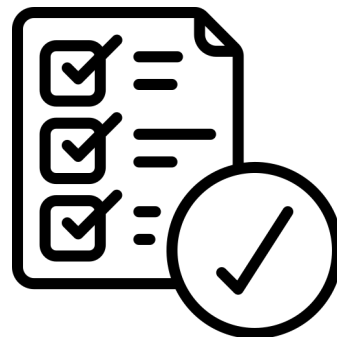
*Figures are from Red Hat's 2022 State of Enterprise Open Source Report*

# why would enterprises support open source?
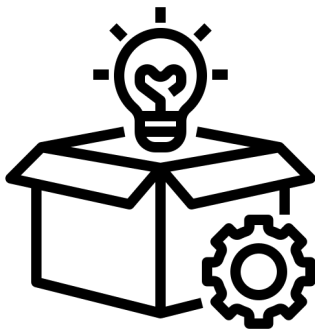


provide offerings
sooner



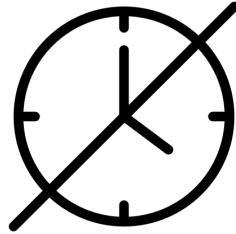quicker development
and identification of
talent



better UX
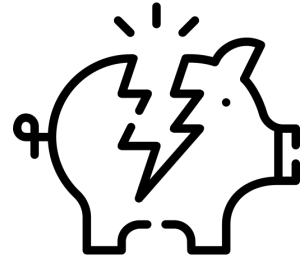through open
standards

*a rising tide lifts all boats*

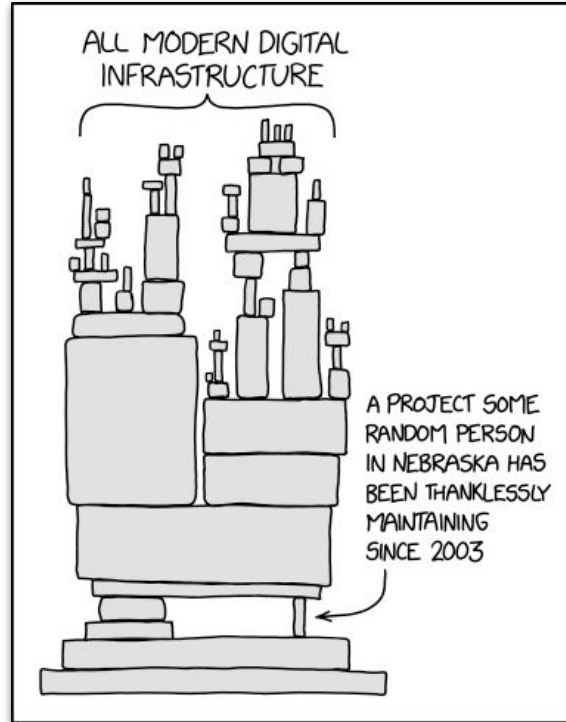# but ... sometimes you can't

no OSPO or
formal process

no time to
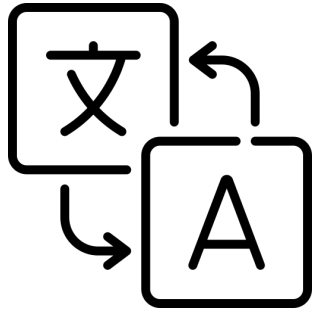contribute

financially not
possible

# and then this happens

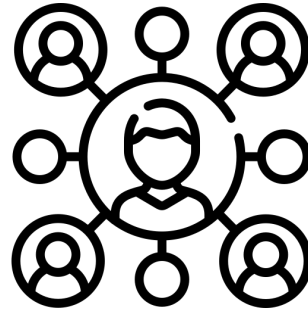# ways of contributing without coding

documentation

translation

community
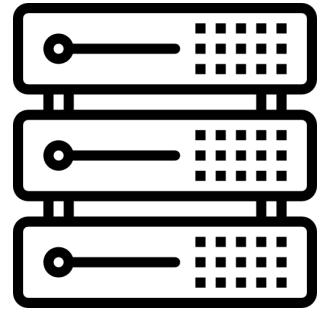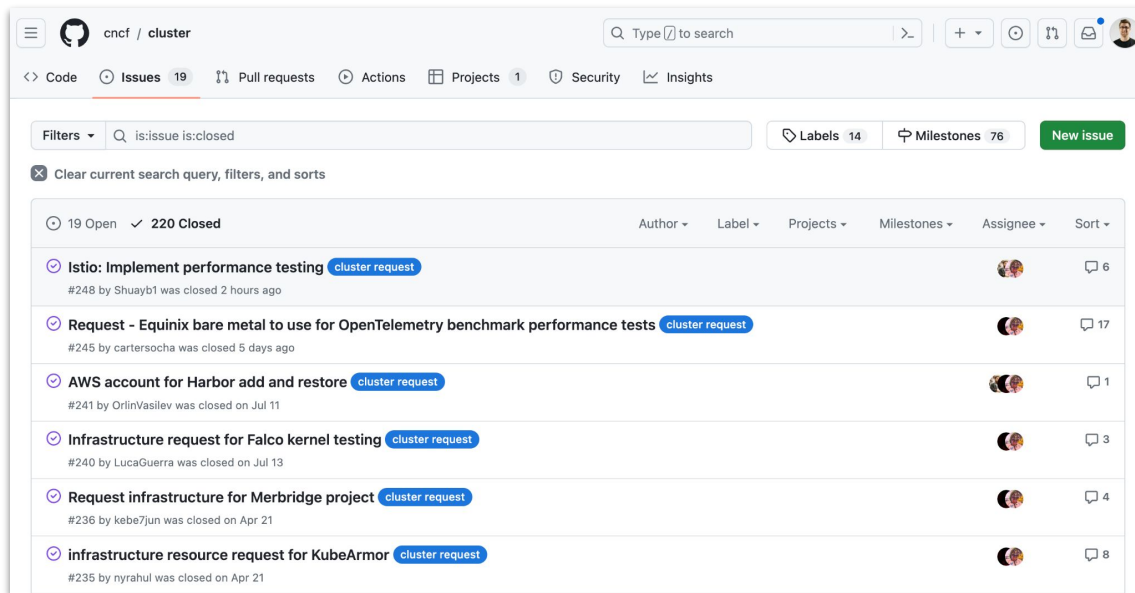
infrastructure

1. **Start small**

2. **Identify dependencies**

3. **Look for a surplus**

# case study: equinix's open source partner program (OSPP)

*a program for open source infrastructure projects to request free compute and networking resources on bare metal servers*
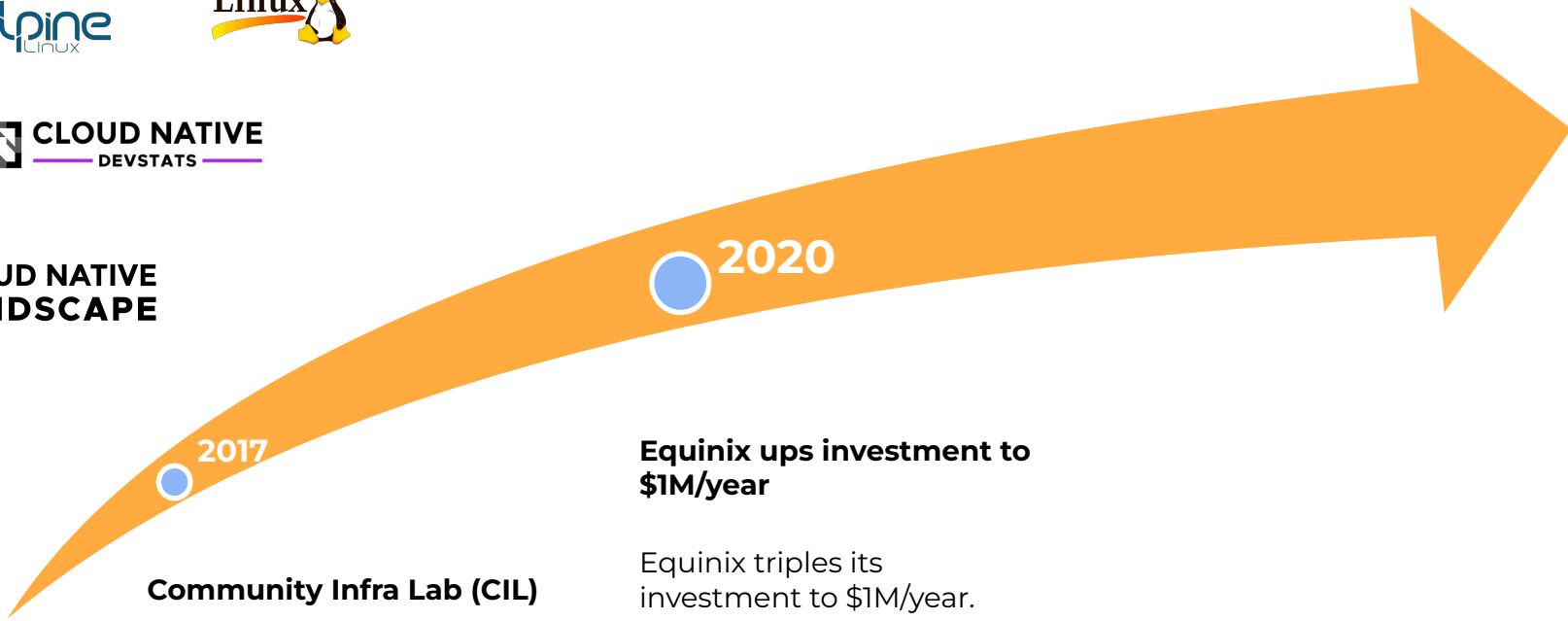
# start small

# OSPP timeline

**2020**

**2017**

**Community Infra Lab (CIL)**

Support started in 2017 with Packet with $25k/month.
Source

**Equinix ups investment to $1M/year**

Equinix triples its investment to $1M/year.
Source

# OSPP today

**NTP Pool**

**Gitea**

**cri-o**

**Rocky Linux™**

**etcd**

**argo**

**archlinux™**

**alpine** Linux

**AlmaLinux**

**FLAT CAR**

**K3S**

**NixOS**

**Linux**

**WireGuard**
FAST, MODERN, SECURE VPN TUNNEL

**2023**

**CLOUD NATIVE**
DEVSTATS

**debian**

**2020**

**CLOUD NATIVE**
**LANDSCAPE**

**2017**

**Equinix OSPP crosses $2M/year**

Equinix now supports over 100 projects through its OSPP. Providing more than $2M/year in investment. Source

**Equinix ups investment to $1M/year**

Equinix triples its investment to $1M/year. Source

**Community Infra Lab (CIL)**

Support started in 2017 with Packet with $25k/month. Source

**EQUINIX**

# identify dependencies

# operating system deployments

## Choose Your Operating System

| | Distribution | Version | |
|---|---|---|---|
| ○ | alma | AlmaLinux OS 9 ▾ | ⚡ Deploys in 60 seconds |
| ○ | alpine | Alpine 3 ▾ | ⚡ Deploys in 60 seconds |
| ● | custom_ipxe | IPXE Script URL | Always PXE ⬤ |
| ○ | debian | Debian 12 ▾ | |
| ○ | flatcar | Flatcar Container Linux - Stable ▾ | |
| ○ | freebsd | FreeBSD 13 ▾ | |
| ○ | nixos | NixOS 23.05 ▾ | |
| ○ | rocky | Rocky Linux 9 ▾ | ⚡ Deploys in 60 seconds |
| ○ | talos | Talos v1 ▾ | |
| ○ | ubuntu | Ubuntu 22.04 LTS ▾ | ⚡ Deploys in 60 seconds |

**look for surplus**

# Equinix, we have a lot of hardware



250
data centers

25
metros supported by Equinix
Metal (bare metal through API)

*https://deploy.equinix.com/locations*

# and lots connections



PORT LOCATION | **255** Active Outgoing Connections | **885** Active Incoming Connections | Learn more

Google Cloud
ORACLE Cloud
EQUINIX
aws
salesforce
Azure
IBM Cloud

image display Popup Title image

*https://www.equinix.com/products/digital-infrastructure-services/equinix-fabric*
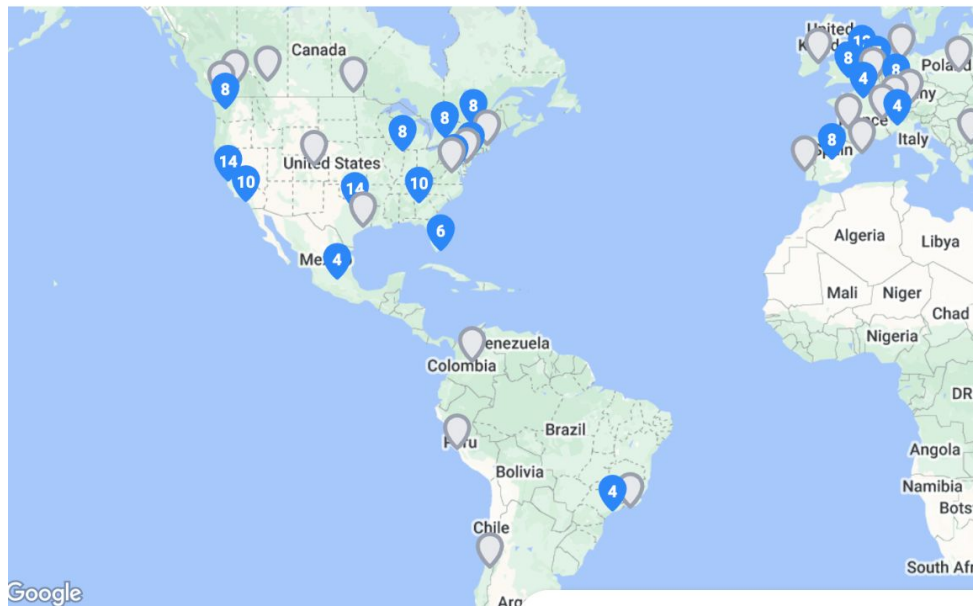
# (check out our video on under sea cables)



https://equix.co/29MT8
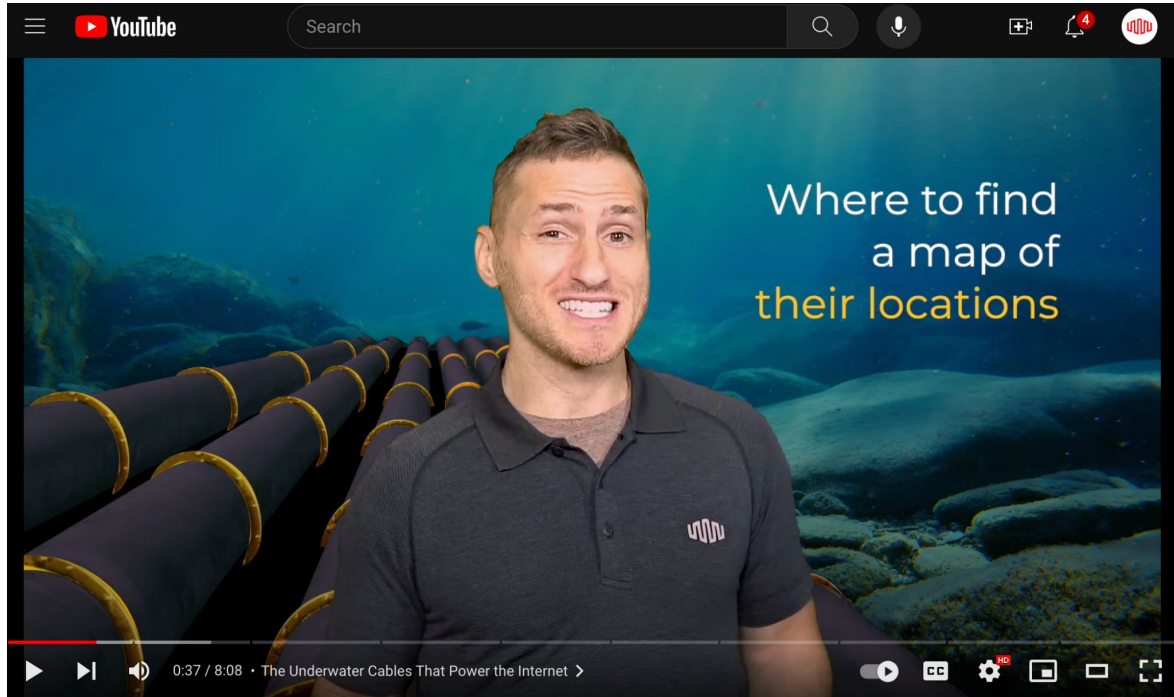
# success stories

# what kind of workloads do projects run?
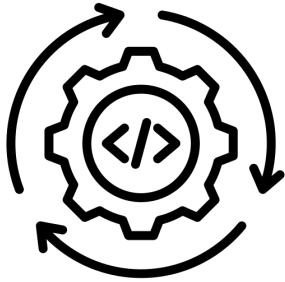
testing
(ci/cd, benchmarking)

short-term needs
(labs, workshops, POCs)
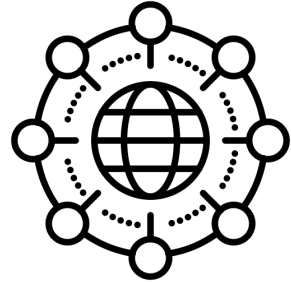
Hosting
(kernels, patches, binaries)

# success story: alpine linux

4288
downloads per day

100 TB
approx. total download volume per day

- Running GitLab-based pipelines to build images
- Building 32 and 64-bit images for both x86 and ARM
- And, using Equinix Metal as a CDN

*"Equinix and the OSSP have been a lifesaver, there is virtually no other provider who could give us all the features we get from Metal." - Carlo Landmeter*

*https://deploy.equinix.com/customers/alpine-linux/*

# success story: kernel.org

- git.kernel.org uses Equinix to route requests. Indispensable.
- mirrors.kernel.org and archive.kernel.org on Equinix.

*"Equinix is indispensable, without it, half the internet breaks." - Robert Reeves, VP Linux Foundation*
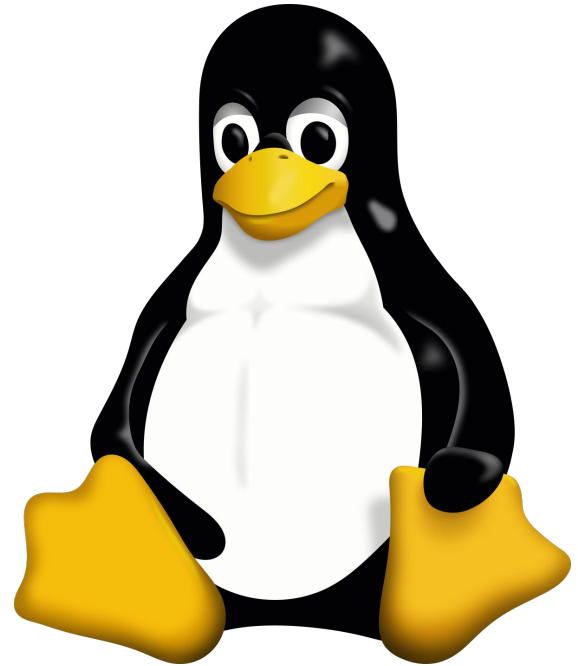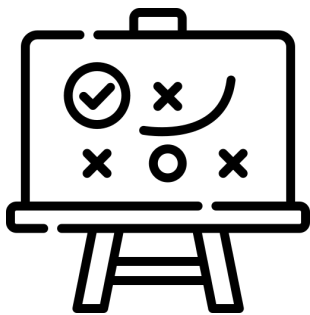
# success story: flatcar linux

- Uses Equinix Metal hardware catalog for building and testing images.
- And, as a CDN.
- Noticing a pattern?

*"Metal allows us to test not just our bare metal releases but also multiple virtualisation vendors." - Thilo Fromm*
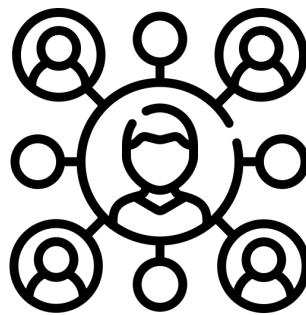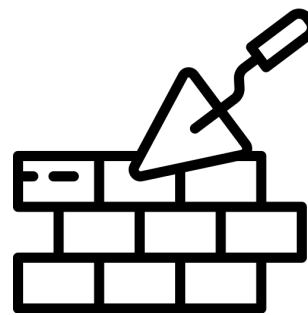
# impact

# impact of the OSPP

weaved into product strategy

customer success stories

collaborate with experts

work with foundations

# success for Equinix: supply chain insight

| Server Type | Supported operating systems | P |
|---|---|---|
| ○ t3.small.x86 ⓘ | | $ |
| ○ c3.small.x86 ⓘ | | $ |
| ○ m3.small.x86 ⓘ | | $ |
| ○ c2.medium.x86 ⓘ | | $ |
| ○ c3.medium.x86 ⓘ | | $ |
| ○ c3.large.arm64 ⓘ | | $ |
| ○ s3.xlarge.x86 ⓘ | | $ |
| ○ m3.large.x86 ⓘ | | $ |
| ○ n2.xlarge.x86 ⓘ | | $ |
| ○ n3.xlarge.x86 ⓘ | | $ |
| ○ g2.large.x86 ⓘ | | $ |

# open source program office

# how to start your own ospp-like initiative

1. **Start small:** As with any project, start small. Equinix's OSPP was not an overnight success, it took *years*.

2. **Identify dependencies:** Identify critical paths in your system that have open source dependencies on open source components.

3. **Look for a surplus**: Look for things that are surplus to you, but would be scarce to someone else.

4. **Supply chain insights**: Your open source dependencies are your suppliers, make sure you have insight into and support for your supply chain.

5. **Work with your OSPO**: If you have an OSPO, figure out what worries them.

# thank you!
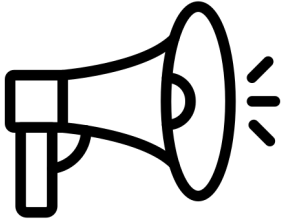


raise awareness



sponsor projects

*Every organization can find unique ways to support open source, beyond code contributions*



Ed: **@w8env@hachyderm.io**
fen: **@crayzeigh@hachyderm.io**

# homework



try contributing
- it doesn't have
to be a huge
change



learn more about
open source
(licensing &
history)



can you build a
business with
open source?