Intro to

LINKERD

KubeCon + CloudNativeCon EU 2019

LINKERD

An open source *service mesh* and CNCF member project.

🔥 24+ months in production

🔥 3,000+ Slack channel members

🔥 10,000+ GitHub stars

🔥 100+ contributors

🔥 Near-weekly edge releases

CLOUD NATIVE COMPUTING FOUNDATION

Ask

CHASE ⬡

GoDaddy

⊙ KAIROS

STRAVA

BIGCOMMERCE

✈ Expedia

OfferUp

ebay

Cisco webex

COMCAST

planet.

Why use Linkerd?

👍 **Visibility:** Automatic *golden metrics*: success rates, latencies, throughput

👍 **Reliability:** Retries, timeouts, circuit breaking, deadlines, request balancing

👍 **Security:** Transparent mTLS, cert validation, policy

✨ **Goal:** Move visibility, reliability, and security primitives *into* the infrastructure layer, *out* of the application layer.
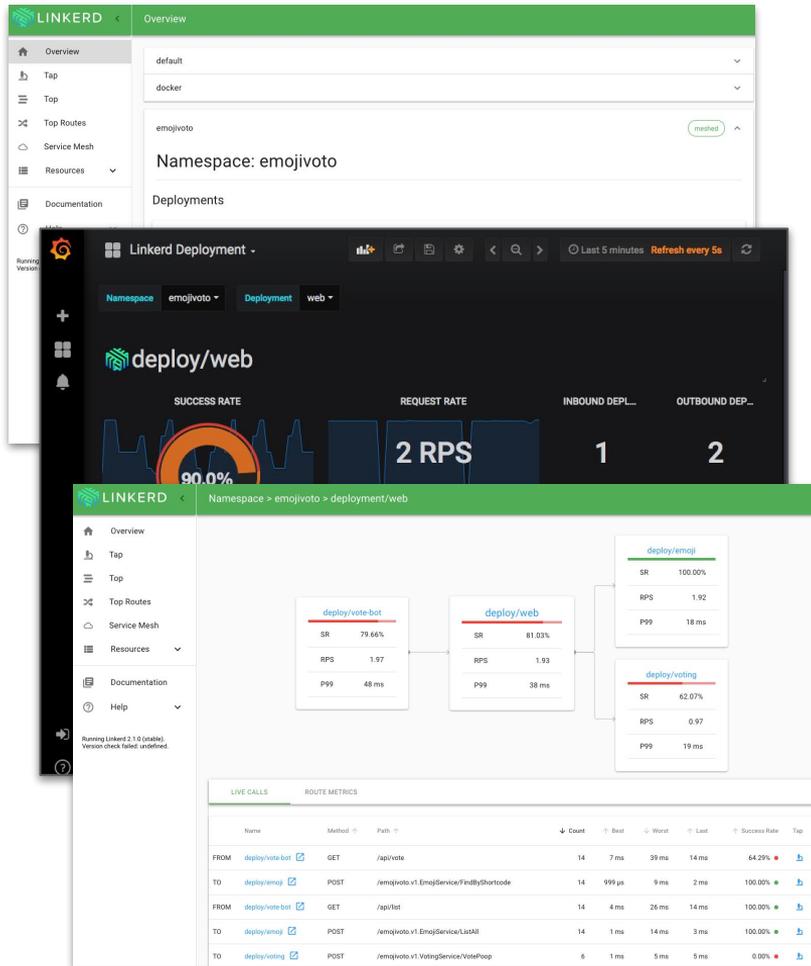
Linkerd *created* the service mesh

LINKERD 0.1 — 2/2016

CLOUD NATIVE COMPUTING FOUNDATION — 1/2017

LINKERD 2.0 — 9/2018

2013

Two parallel branches of development:

Linkerd 1.x: powerful, highly configurable, multi-platform
(K8s, ECS, Mesos, Consul/Nomad)

Linkerd 2.x: ultralight, zero-config, Kubernetes-first

Linkerd 2.x design goals

💪 **Zero-config "just works":** If you have a functioning K8s app, drop in Linkerd without configuring anything.

💪 **Really fast, really small:** proxies should introduce the bare minimum perf (and resource!) hit

💪 **Understandable:** no magic

Data plane: linkerd2-proxy. Written in Rust. <10ms RSS, <1ms p99. **(!!!!)**

Control plane: linkerd2. Written in Go. Includes small Prometheus (6 hour window), Grafana, etc.

Linkerd 2.x architecture
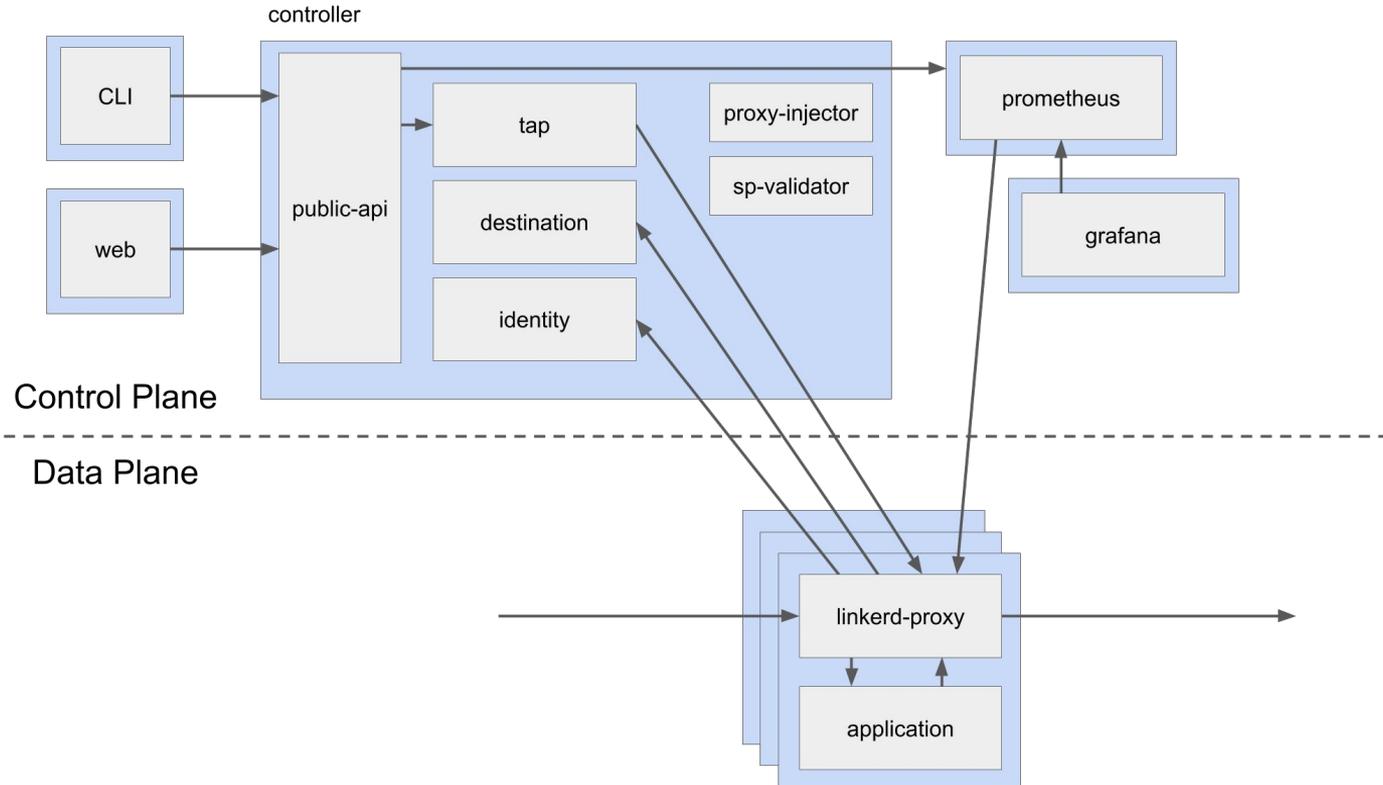
Roadmap

As of 2.3:

🗺️   Telemetry, retries, timeouts, auto-inject, mTLS on by default. All zero config.

Near term:

🗺️   Traffic shifting (blue-green, canaries), policy, mesh expansion

Mid term:

🗺️   Circuit breaking, distributed tracing, lots lots more.

At Kubecon EU 2019

😻 Expo hall: Linkerd booth! Come say hi to the maintainers!
😻 10+ talks and events throughout the week!

https://bit.ly/2LVKLtd

Get Involved!

💛 Development is all happening on GitHub

💛 Thriving community on the Linkerd Slack

💛 Formal announcements on the mailing lists

Linkerd has a friendly, welcoming community! Join us!

Cole Calistra @coleca · Feb 2
FACT: If you are considering service mesh and @linkerd isn't first on your list you're making a HUGE mistake. It just WORKS. Plain and simple. No hours of YAML configuration files to write. It just WORKS. Thank you @wm and @BuoyantIO team! @CloudNativeFdn

Site Reliability Balladeer @SethMcCombs · 8 Dec 2018
Replying to @michellenoorali
It took me a total of 5 minutes to set up @linkerd in my QA environment and BOOM metrics for days. I can't remember the last time I set up something so easy, it was almost...fun?

ZΔK @zakknill · Feb 14
Just used #linkerd2 for the first time to solve a real production issue. The observability tooling is life changingly good! Thanks @linkerd

Abhinav Khanna @Abhinav14435957 · 12 Dec 2018
Having used Linkerd, I think the team has done a fantastic job of making it feel magical. #linkerd

Michelle Noorali @michellenoorali · 8 Dec 2018
seriously the linkerd2 getting started guide is so good and the check command is just beautiful 🤗 linkerd.io/2/getting-star... @linkerd

Nigel Wright @nigelwright_nz · 18 Nov 2018
Whoa @linkerd just blew my mind a little. That was crazy easy to setup and start getting real info about my #k8s deployments.

Stephen Pope @stephenpope · 26 Oct 2018
@linkerd Very pleased with #Linkerd2 - deployed my app (with auto-proxy-injection) and #itjustworked - Had all the info I needed on the dashboard - Thanks very much (great docs too)

Darren Shepherd @ibuildthecloud · Feb 14
I'm consistently impressed with @linkerd 2.0. If you are looking at istio, try linkerd first. I takes about 5 minutes. Then you'll have something working and in place while you try to understand and deploy istio for the next 9 months.

9   63   ❤ 270