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Creators of LINKERD

Backstage and Linkerd

Ben Lambert (Spotify & Maintainer of Backstage.io)
Flynn (Tech Evangelist for Linkerd)

Tell us how we can improve!

Your feedback matters!

It won't take you more than a few minutes …promise!
And it would help us tremendously — thank you!



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AGENDA

- **Quick** introductions:
  - The problems
  - Service Mesh
  - Internal Developer Platform
  - Linkerd
  - Backstage
- **DEMO**!



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What You Need to Follow Along

- A cluster (we've done this with `k3d` and Civo but anything should work)
- The `npm` command installed (really `npx` is what you'll use)
- `kubectl`
- `linkerd`
- `docker` (to build the Backstage image)



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The Problem(s)

- Getting things done with microservices requires a lot of stuff
  - You have to know which microservices are running!
  - You have to know what code they're running
  - You have to know what each microservice can do and how to use it
  - You have to trust the microservices
  - You have to be able to tell when a microservice is misbehaving
  - You have to know who to talk to when a microservice is misbehaving

The Problem(s)

- In small organizations this isn't all that hard
- In large organizations, even knowing which microservices exist can be very hard

The Solutions

- Service meshes help you trust the microservices
- Internal Developer Platforms help you know things about them

Service Mesh

- In microservices applications, microservices communicate over the network
  - Unfortunately, the network is insecure and unreliable!
- A service mesh is an infrastructure component that adds **security**, **reliability**, and **observability** to your application
  - at the *platform* level
  - *uniformly* across the entire application
  - for *all* the communications between your microservices

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Internal Developer Platform

- What is an IDP?
  - ‘Single pane of glass’ for your engineers at your company
- Highly customized to your Organization’s needs
  - Integrations with all the tools in your organization
- Service Catalogs
  - Centralize all of your software in one place
- Increasing developer productivity
  - Make it easier for engineers to work
  - Removing the complexities of your organizations tech stack

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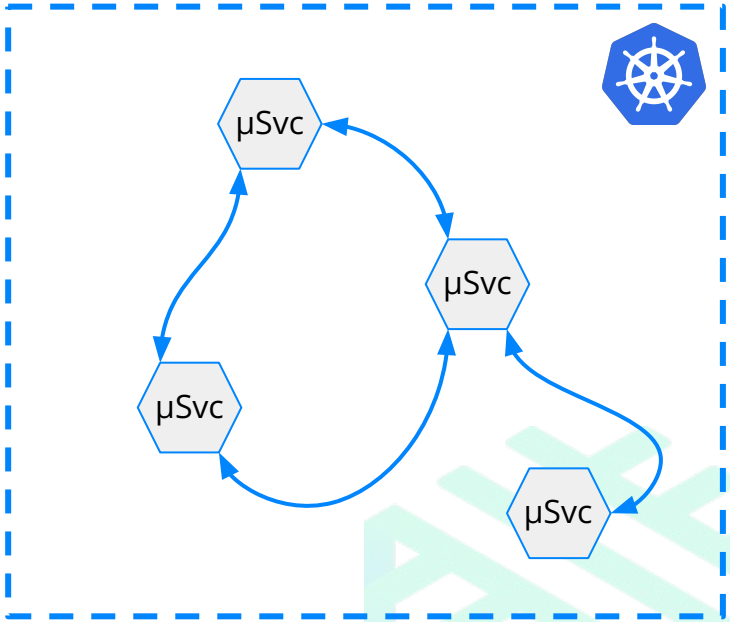
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Self Service

- Both the service mesh and the IDP help developers help themselves
- This is a *huge* factor when you're trying to *develop* at scale, rather than simply *operate* at scale

Linkerd

- Infrastructure component offering **security**, **reliability**, and **observability** at the platform level

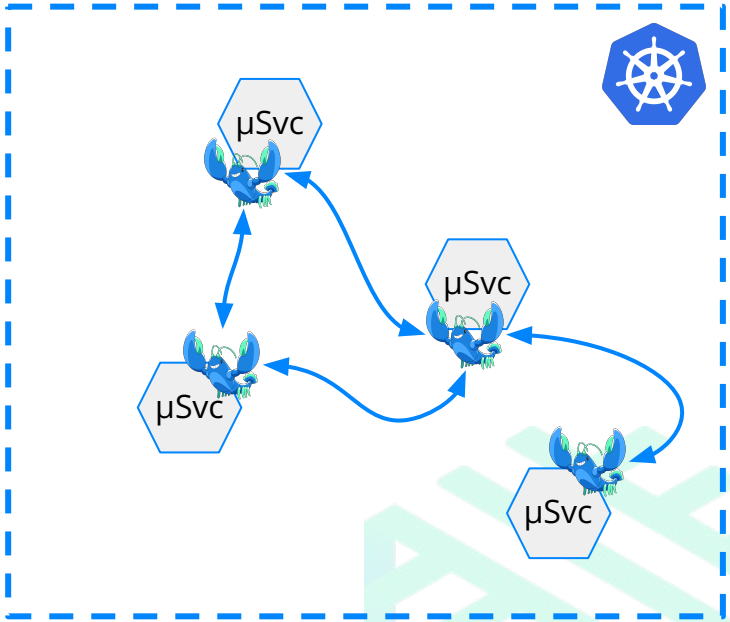


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Linkerd

- Infrastructure component offering **security**, **reliability**, and **observability** at the platform level
- Linkerd adds a proxy next to each application Pod
- Proxies mediate and measure all communication, adding
  - security (via mTLS)
  - reliability (retries, timeouts, etc.)
  - observability (golden metrics, request taps, etc.)



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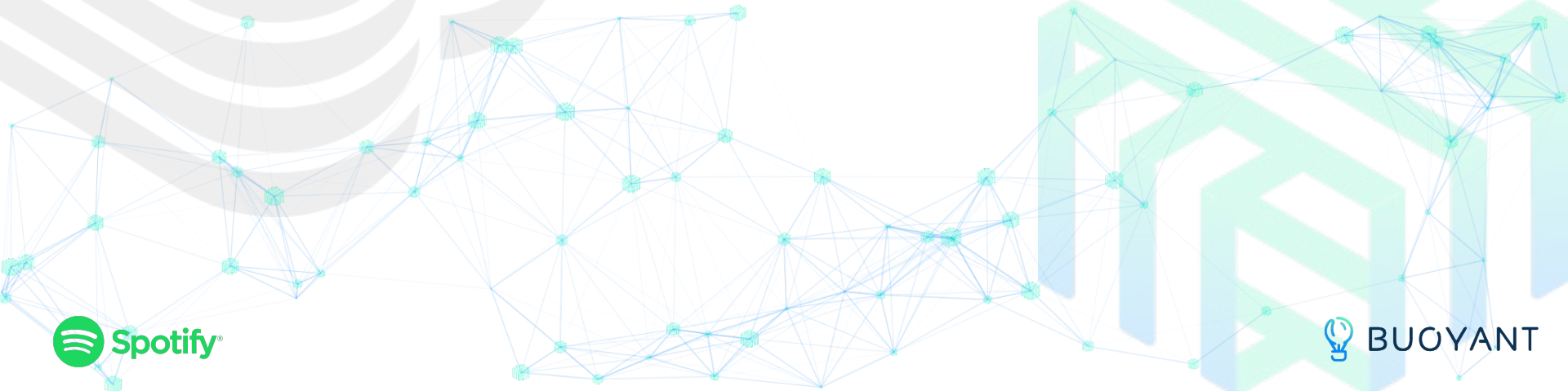
Backstage

- Open source framework for building your IDP
  - 2,5k+ Adopters
- Incubating CNCF project, donated by Spotify
- Core / Plugins / App
- 100+ open source plugins / modules
- Software Catalog, Scaffolder Templates, TechDocs, Kubernetes, Builds, Test Coverage etc...

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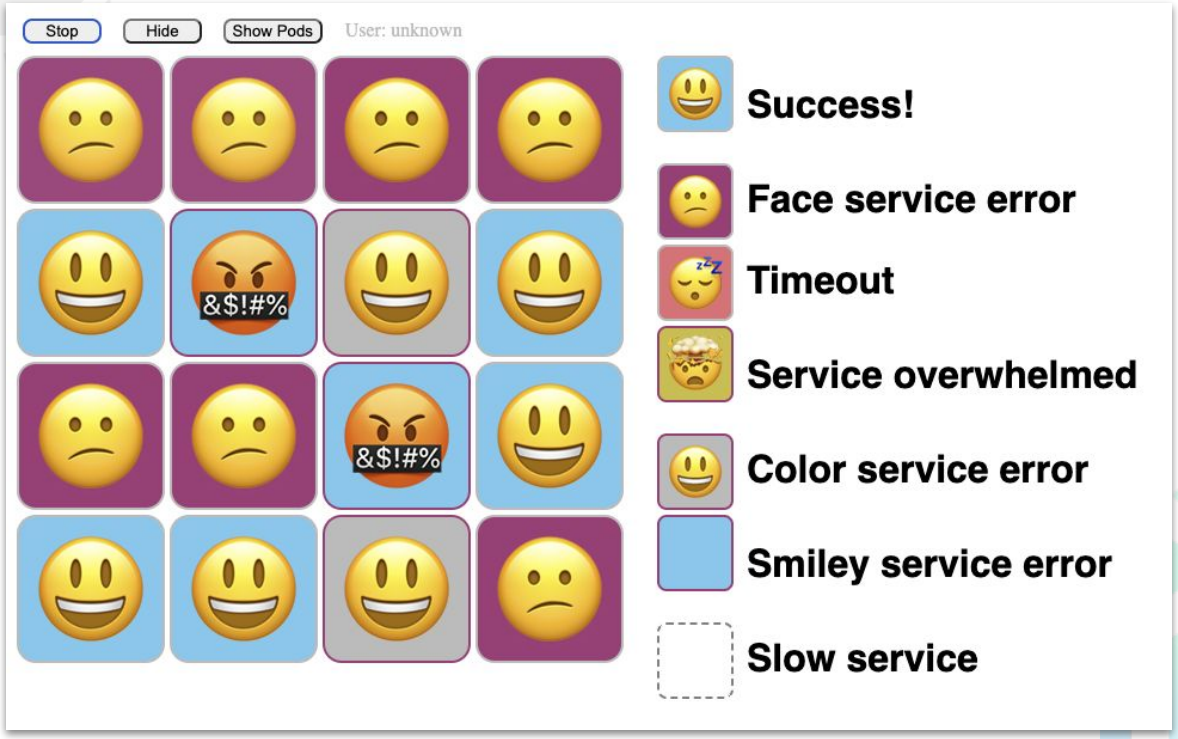
THE DEMO



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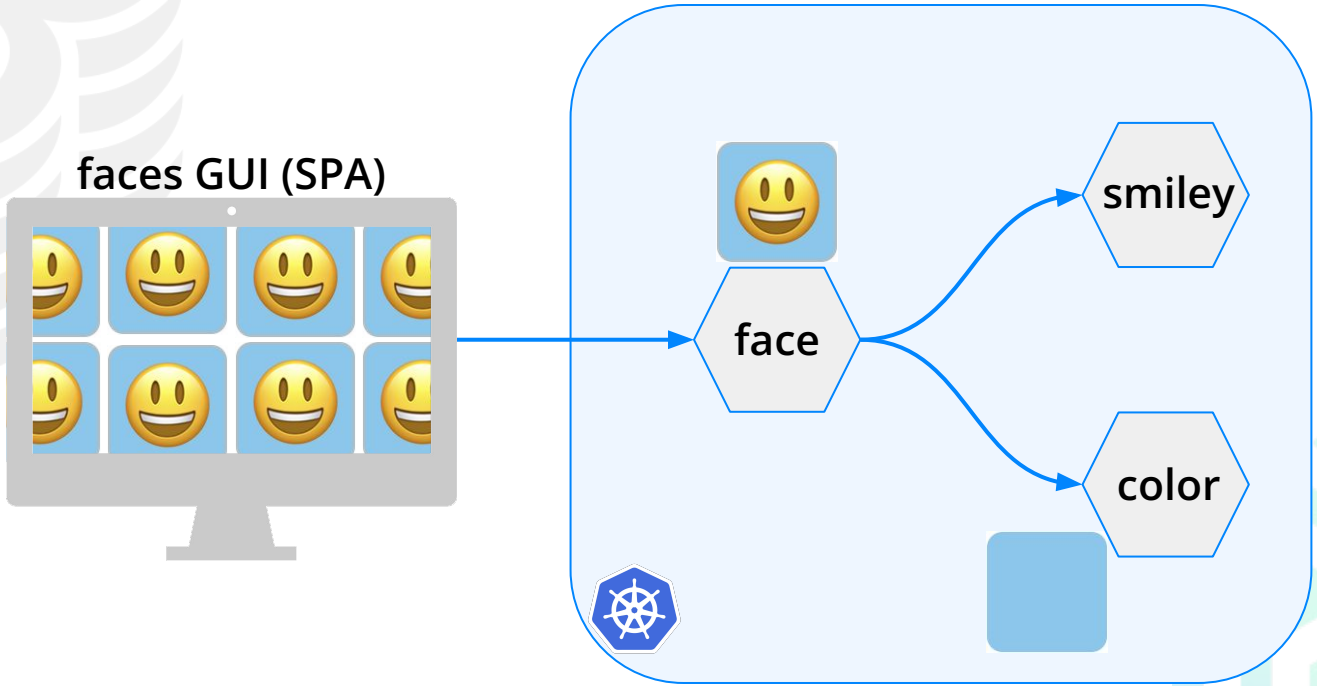
Faces (https://github.com/BuoyantIO/faces-demo)



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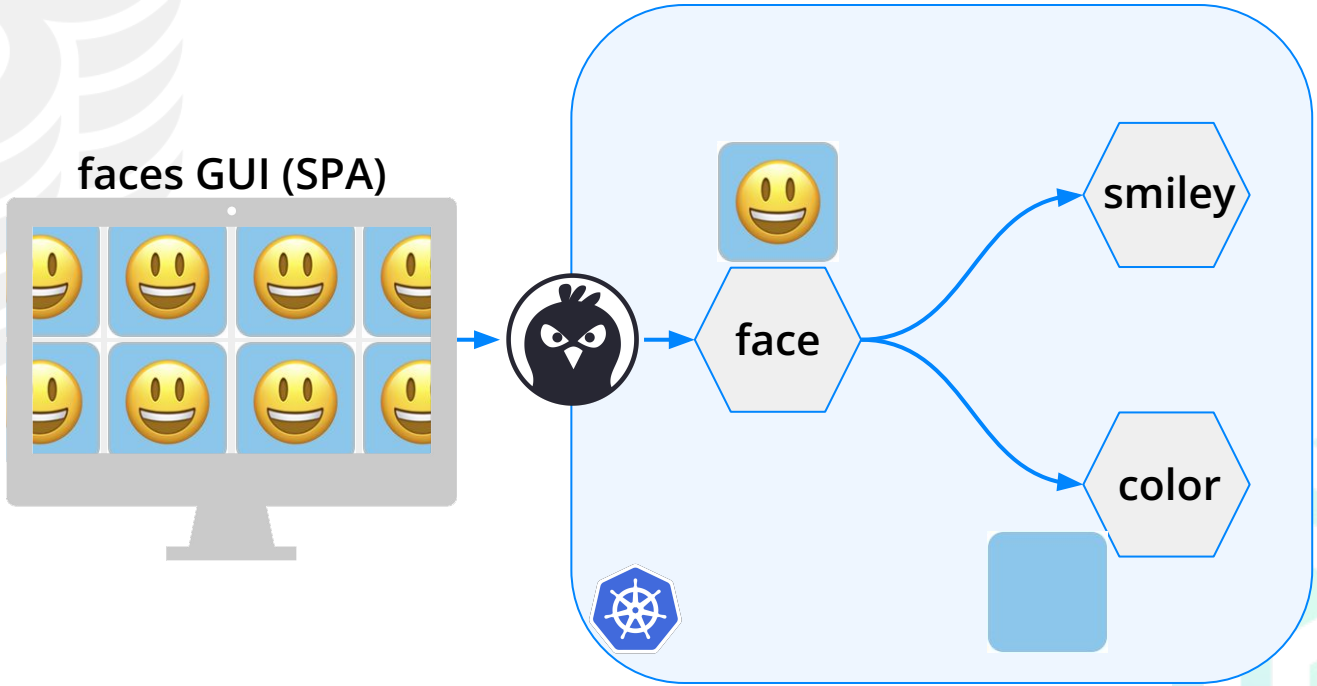
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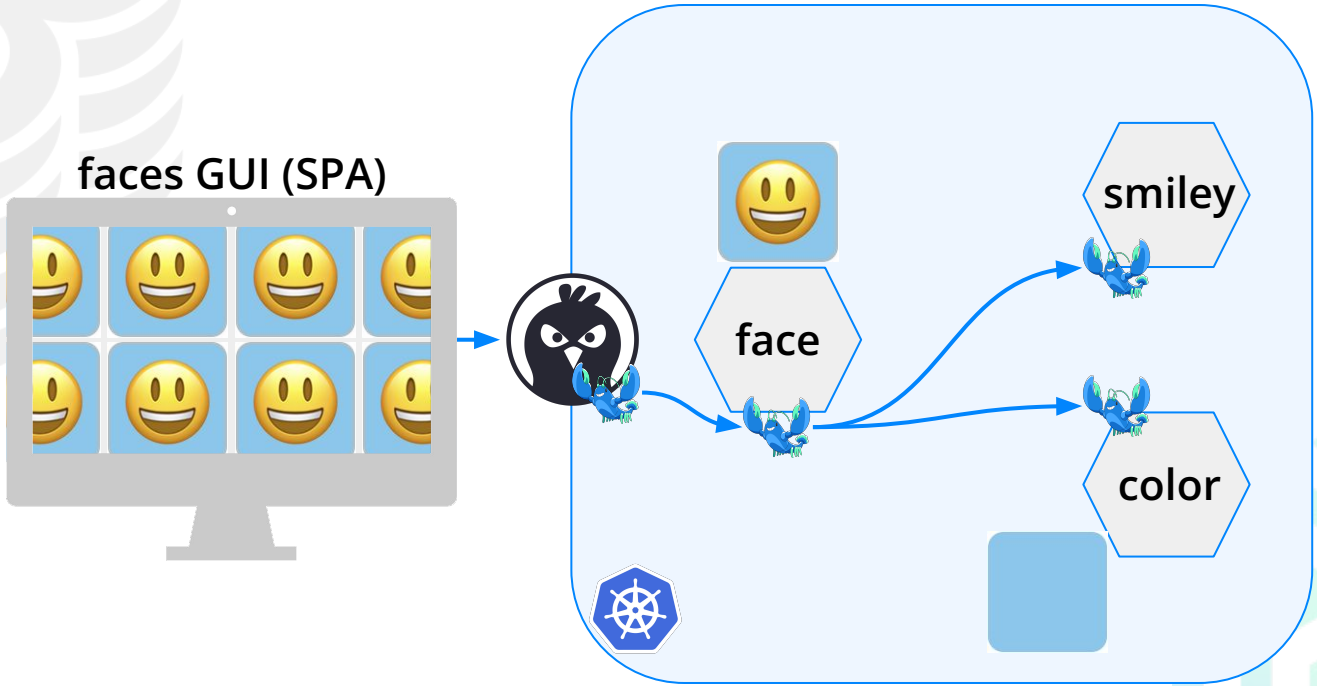
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What you should always see



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What you might see











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DEMO



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Getting Started with Backstage:

https://backstage.io/docs/getting-started

Backstage and Linkerd Workshop Demo Repo:

https://github.com/benjdlambert/backstage-linkerd-workshop

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Updated Course!

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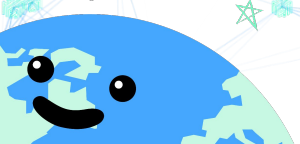


Get Certified!
Service Mesh 101, Online Course

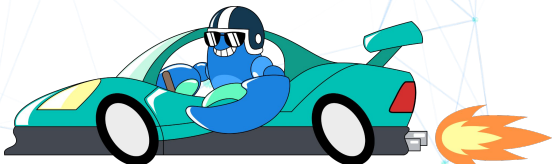
With hands-on LINKERD labs at learn.buoyant.io











Buoyant Enterprise for LINKERD

Rust-based network security and reliability for modern applications. Built on open source and designed for the enterprise.

- ➔ Zero-trust security and compliance across your entire network
- ➔ Global traffic management and control
- ➔ Full L7 application observability
- ➔ Built for the enterprise

Learn more & get a free trial at buoyant.io/**enterprise-linkerd**

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Thank you!

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