



KubeCon



CloudNativeCon

North America 2017

Microservices, Service Mesh, & CI/CD Pipelines: Making it all work together

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Who am I?

Brian Redmond

Azure Cloud Architect

Been working at Microsoft
for the last 17 years

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concepts for this talk



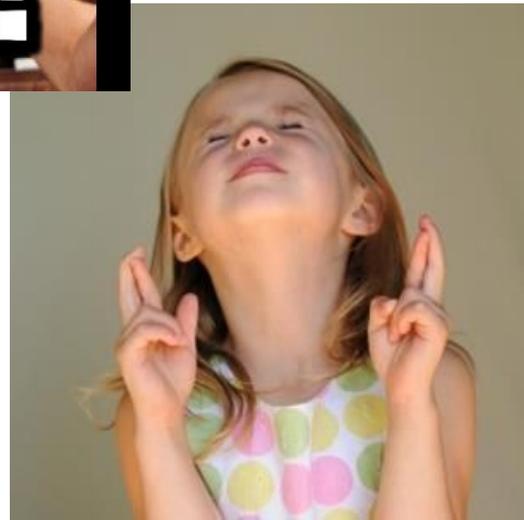
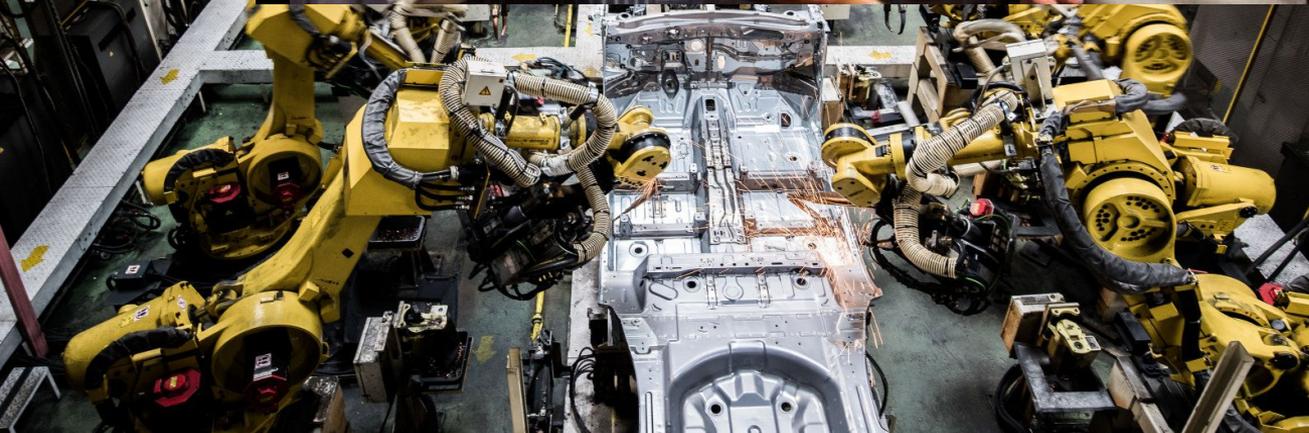
- CI - automated builds
- CD - continuous deployment
- blue/green updates
- canary testing
- pipelines as code



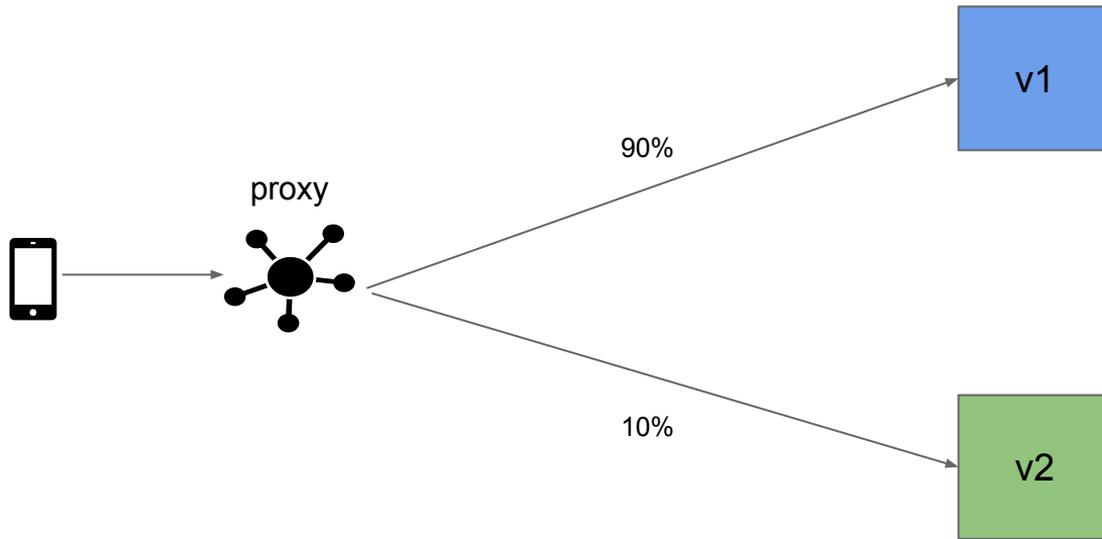
**ANGRY
CUSTOMERS!**



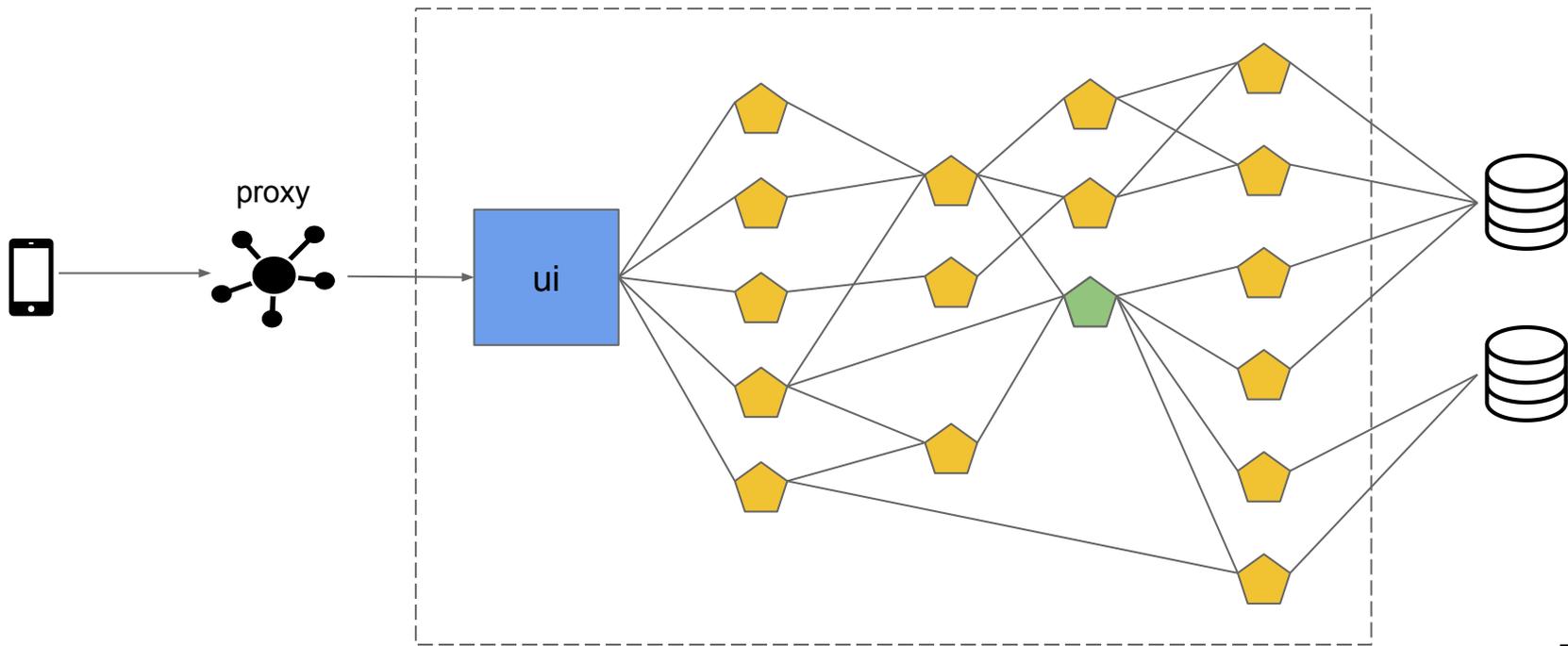
**KEEP
CALM
AND
CROSS YOUR
FINGERS**



canary testing



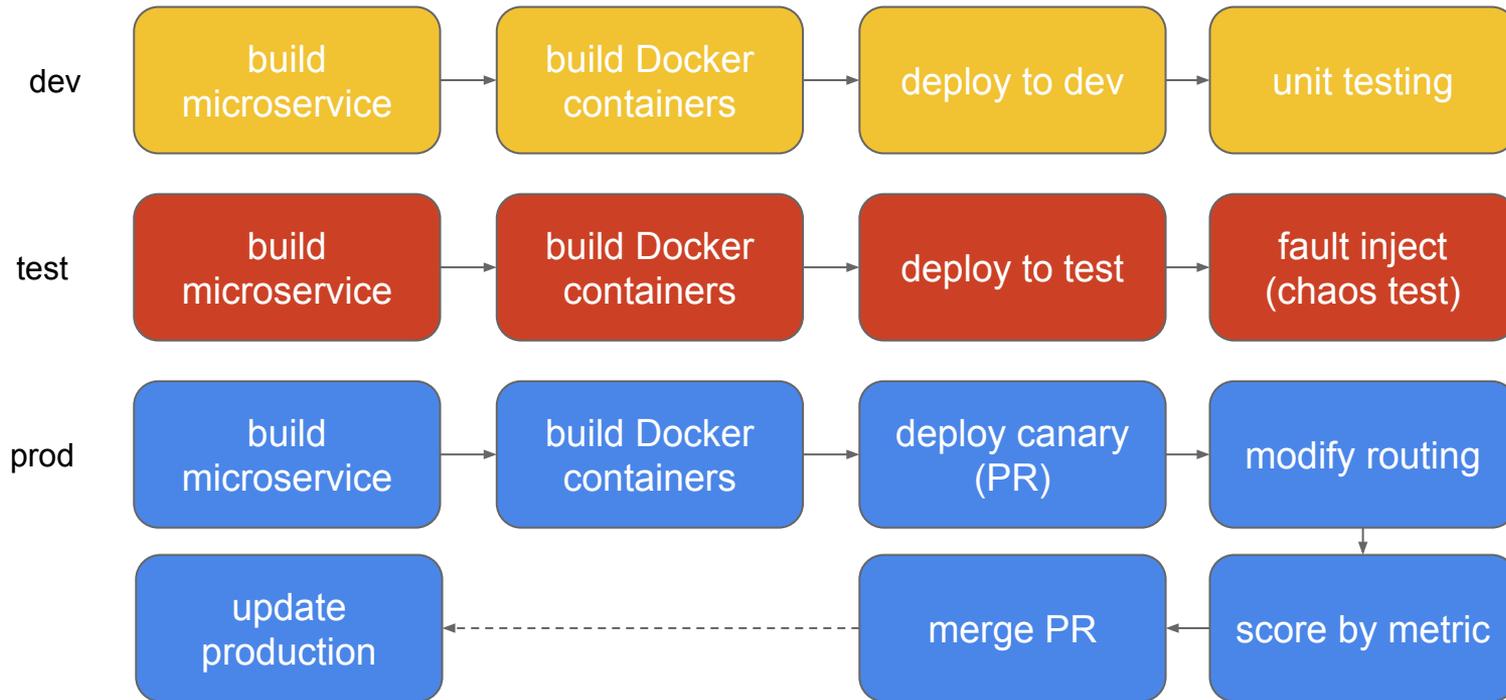
canary testing (microservices)



**what's
missing?**

advanced routing
observability
chaos testing

complete pipeline example



enter Istio

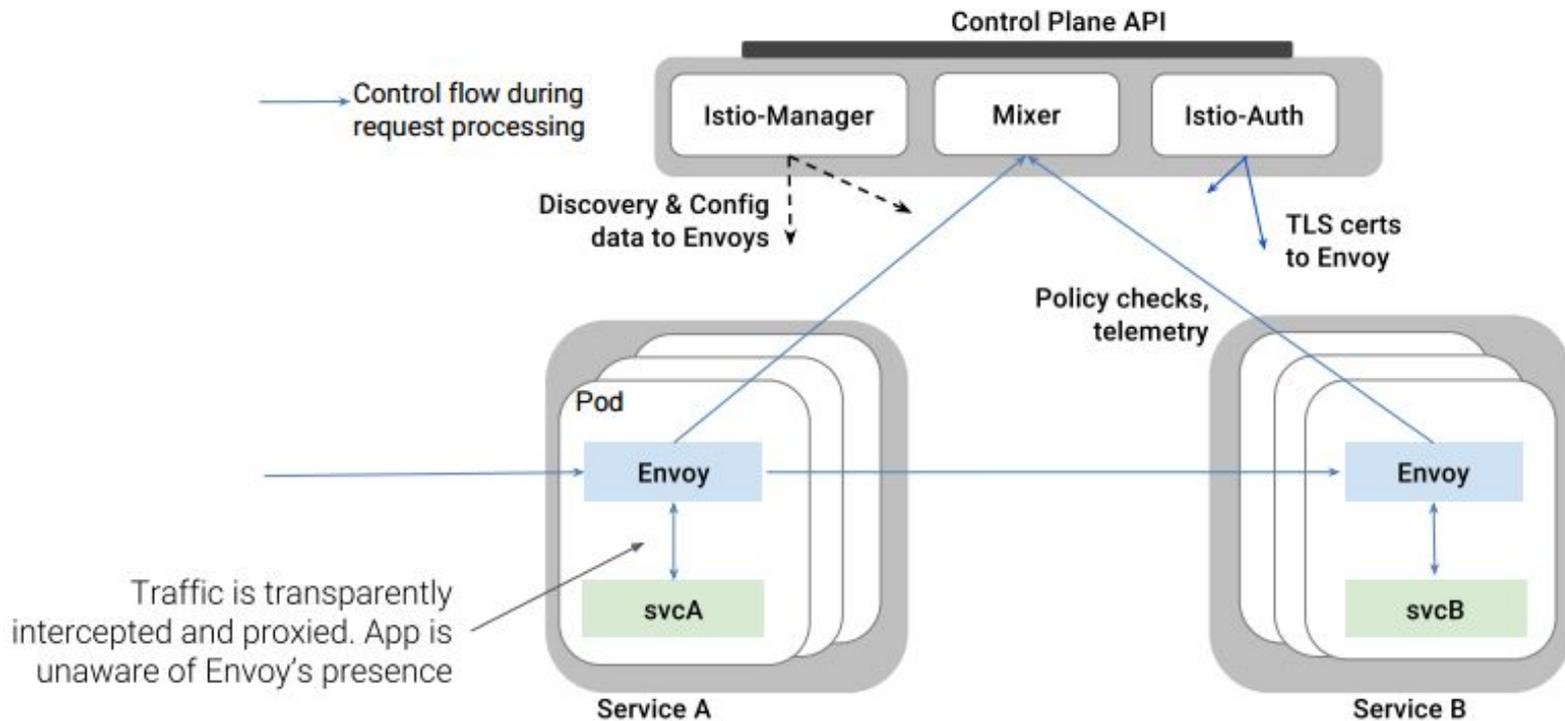
service discovery and routing
health checking
observability
authentication and authorization
resiliency
policy enforcement

Istio



An open platform to connect, manage, and secure microservices

istio



what can I do with istio?



- route rules, traffic shaping
- metrics, logs, and tracing
- fault injection (delays or http faults)

- timeouts and retries
- circuit breakers
- rate limiting
- load balancing policies, health checks
- secure services end-to-end

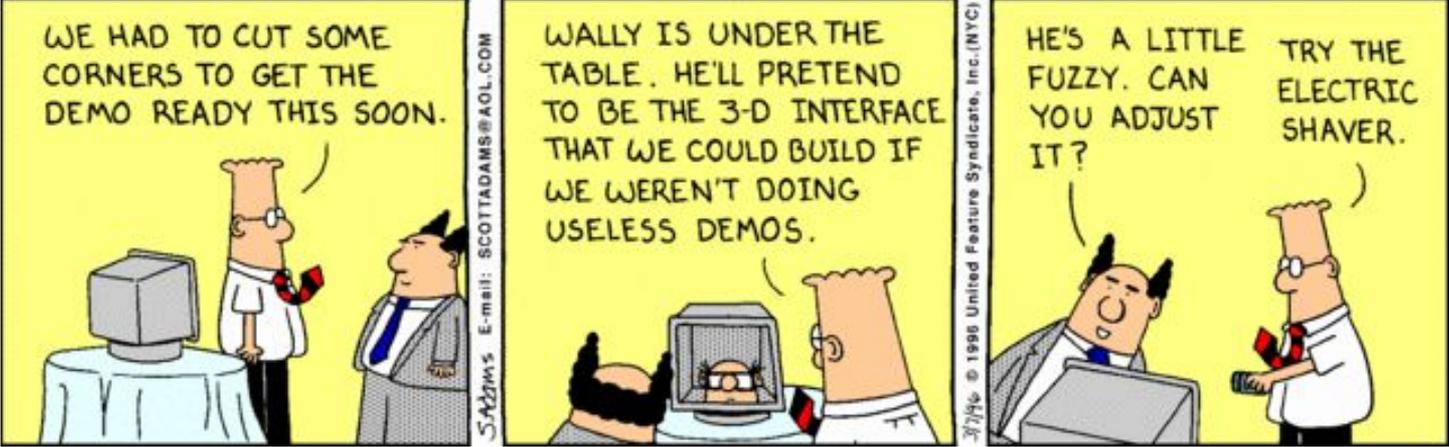
**what about a
CI/CD tool?**

ci/cd pipeline: why brigade?

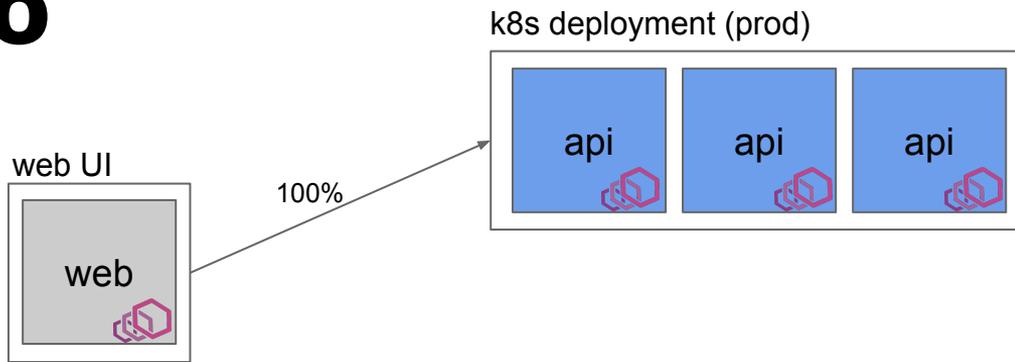


- event based workflow engine
- built on kubernetes
- encapsulate tooling in containers
- javascript
- well suited for CI/CD (pipelines)

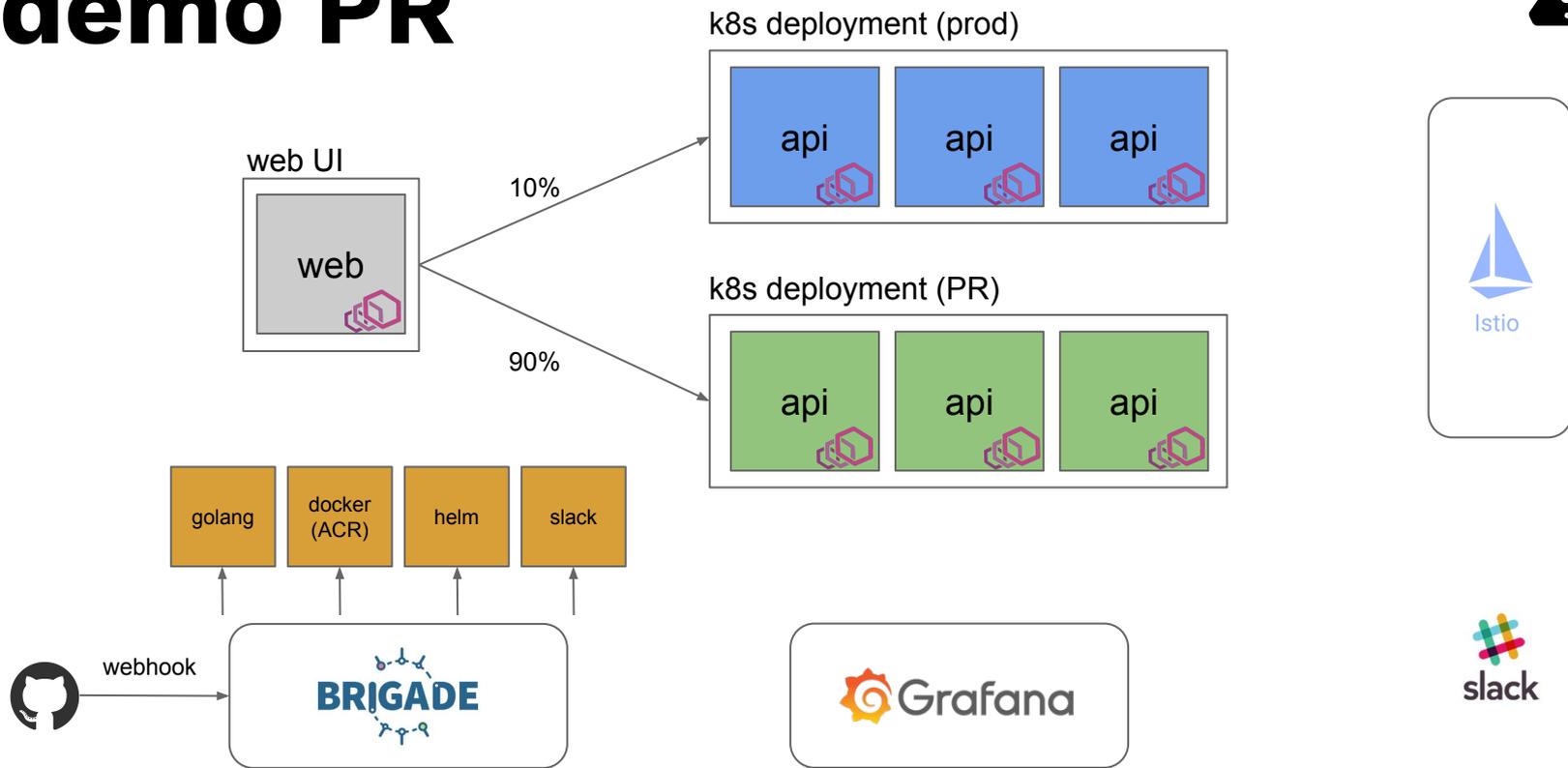
microsmack demo



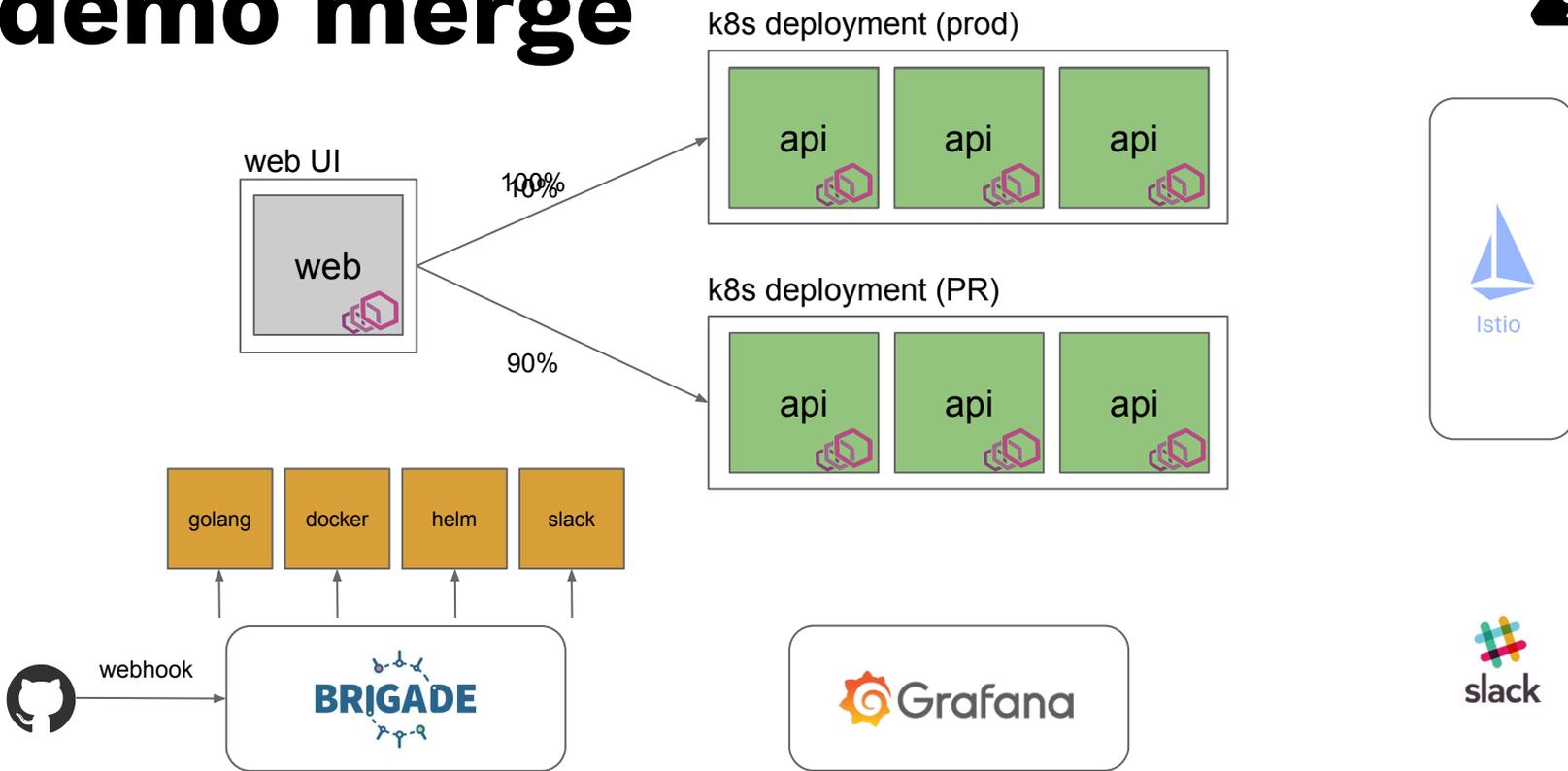
demo



demo PR



demo merge



BRACE YOURSELF



IT'S A LIVE DEMO

memegenerator.net

thanks!



any questions?

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