



THE CLOUD CONNECTIVITY
COMPANY

Kuma, Service Mesh and the Future of Application Connectivity

CNCF Webinar



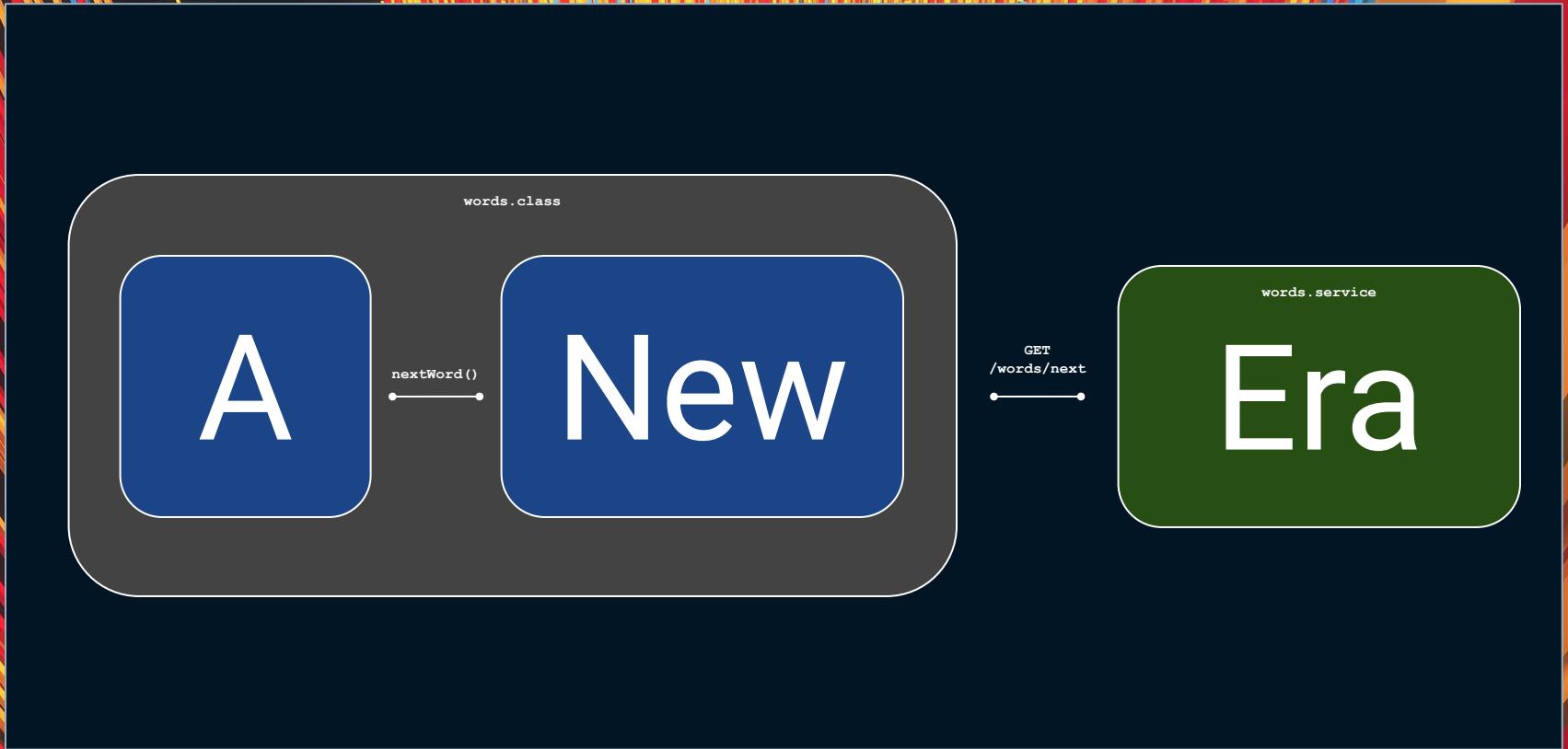
Marco PALLADINO



Kevin

CHEN







Centralized

Decentralized

STATIC

DYNAMIC

ON-PREM

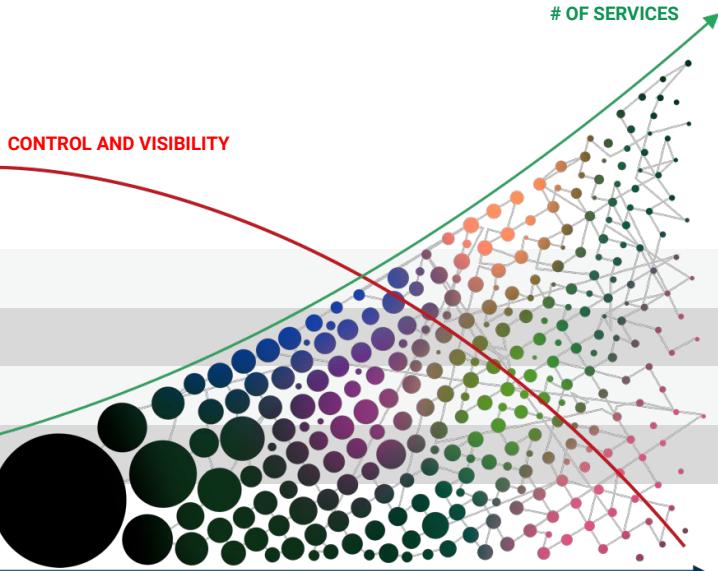
CLOUD / MULTI-CLOUD

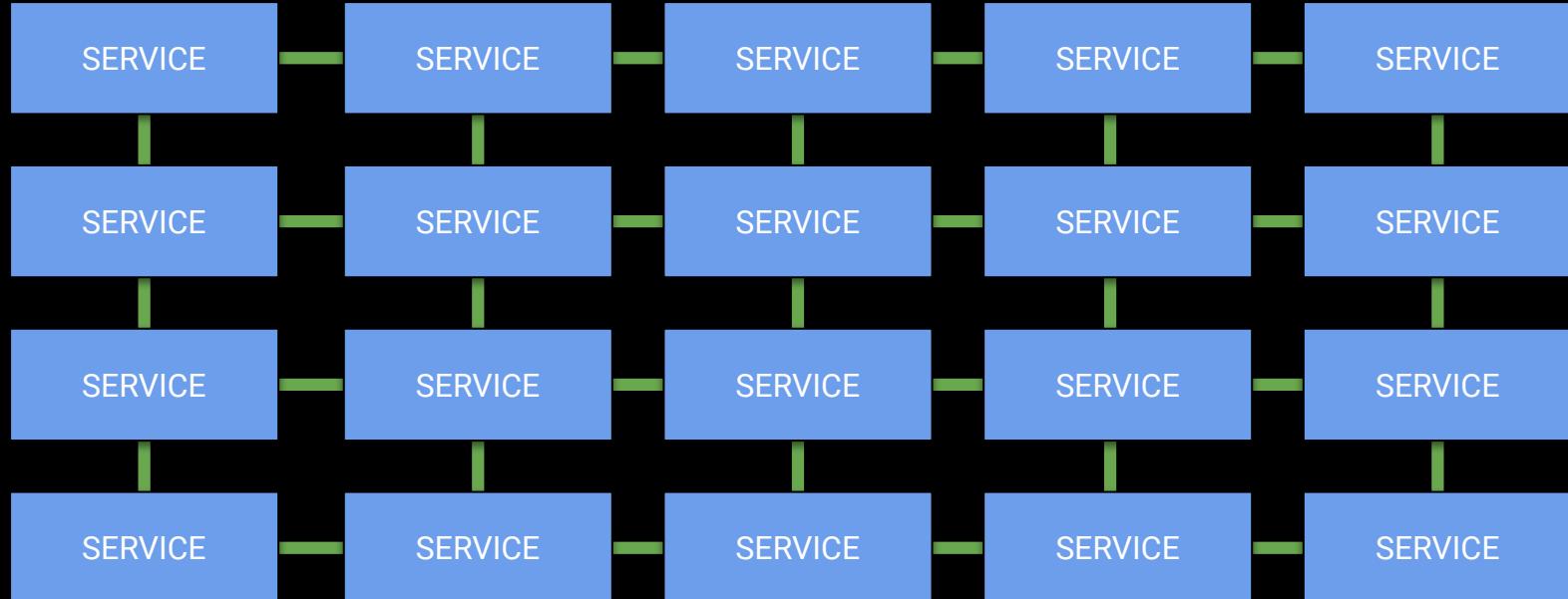
MONOLITH

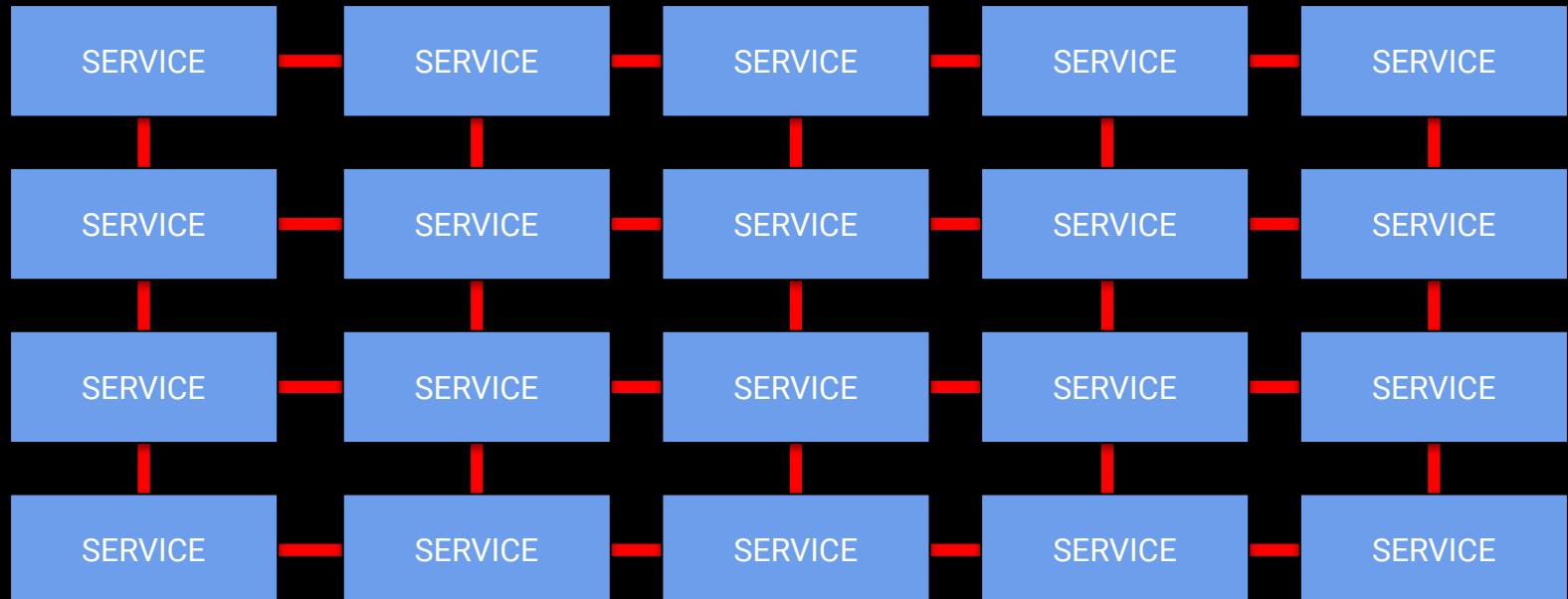
MICROSERVICES / SERVERLESS

WATERFALL

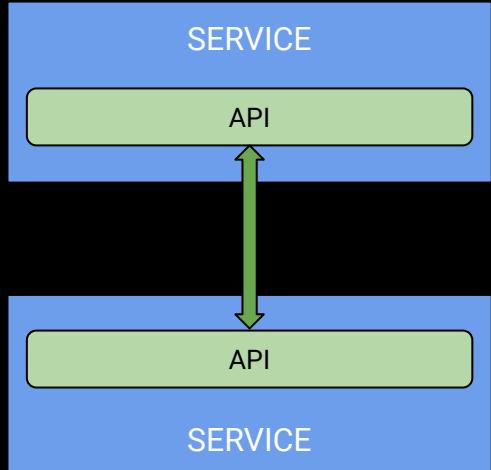
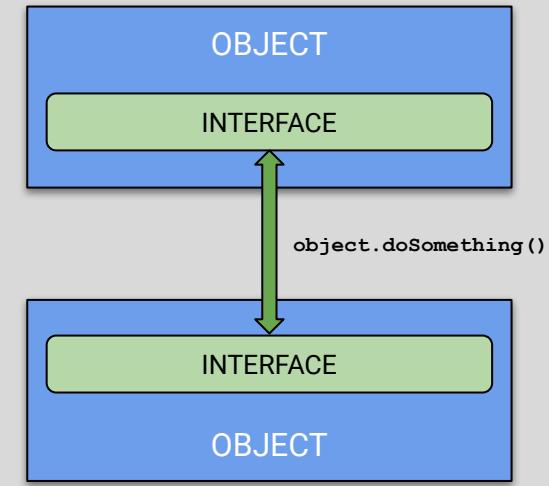
CI/CD, CONTAINERS, KUBERNETES

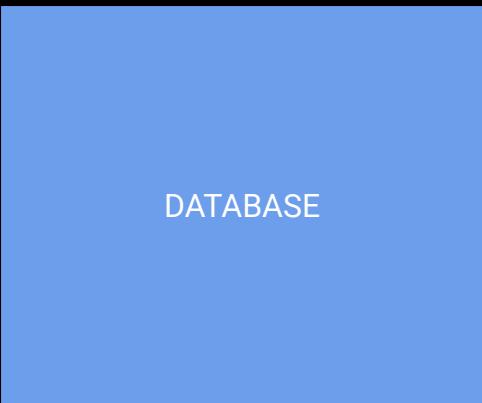


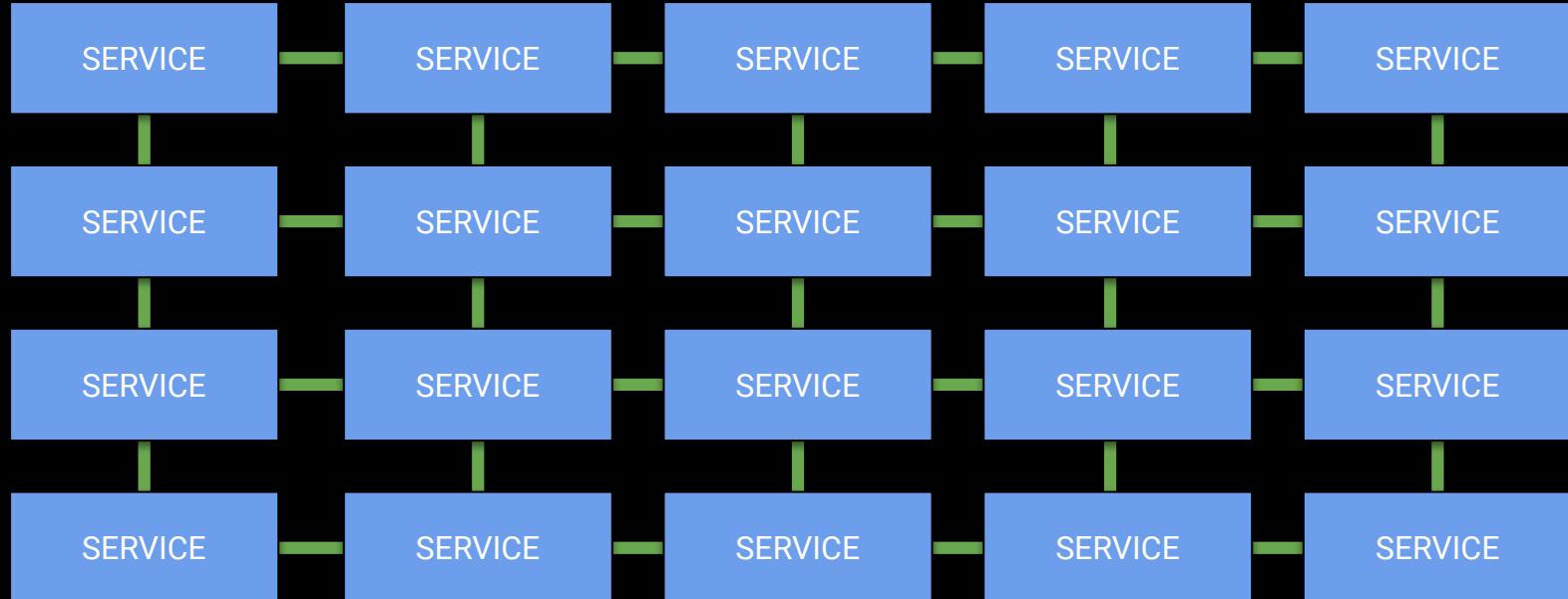




PROCESS







ENCRYPTION

IDENTITY

TRAFFIC ACL

ROUTING

VERSIONING

DEPLOYMENTS

OBSERVABILITY

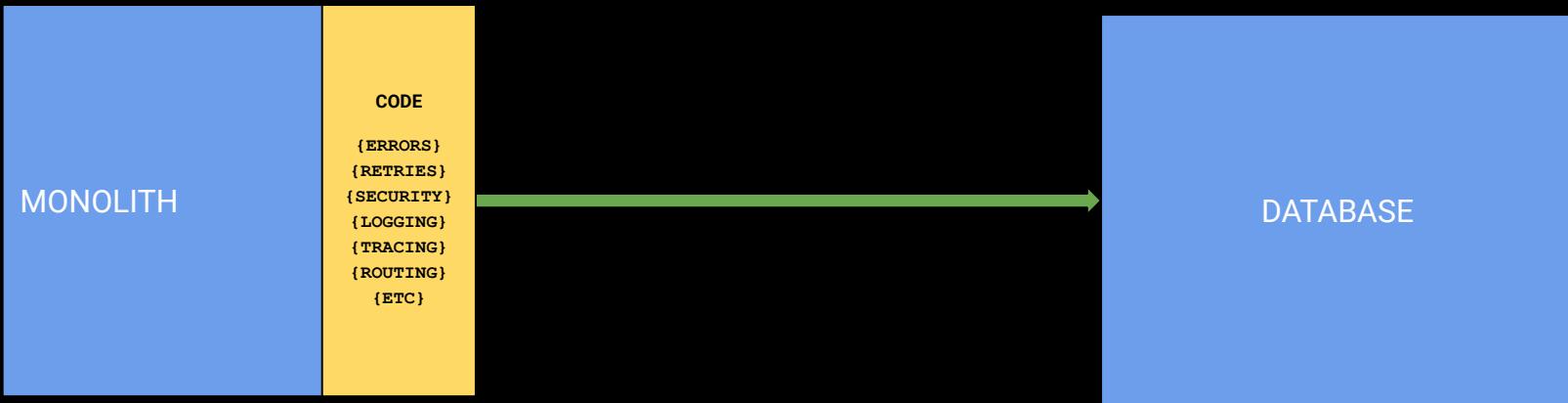
LOGGING

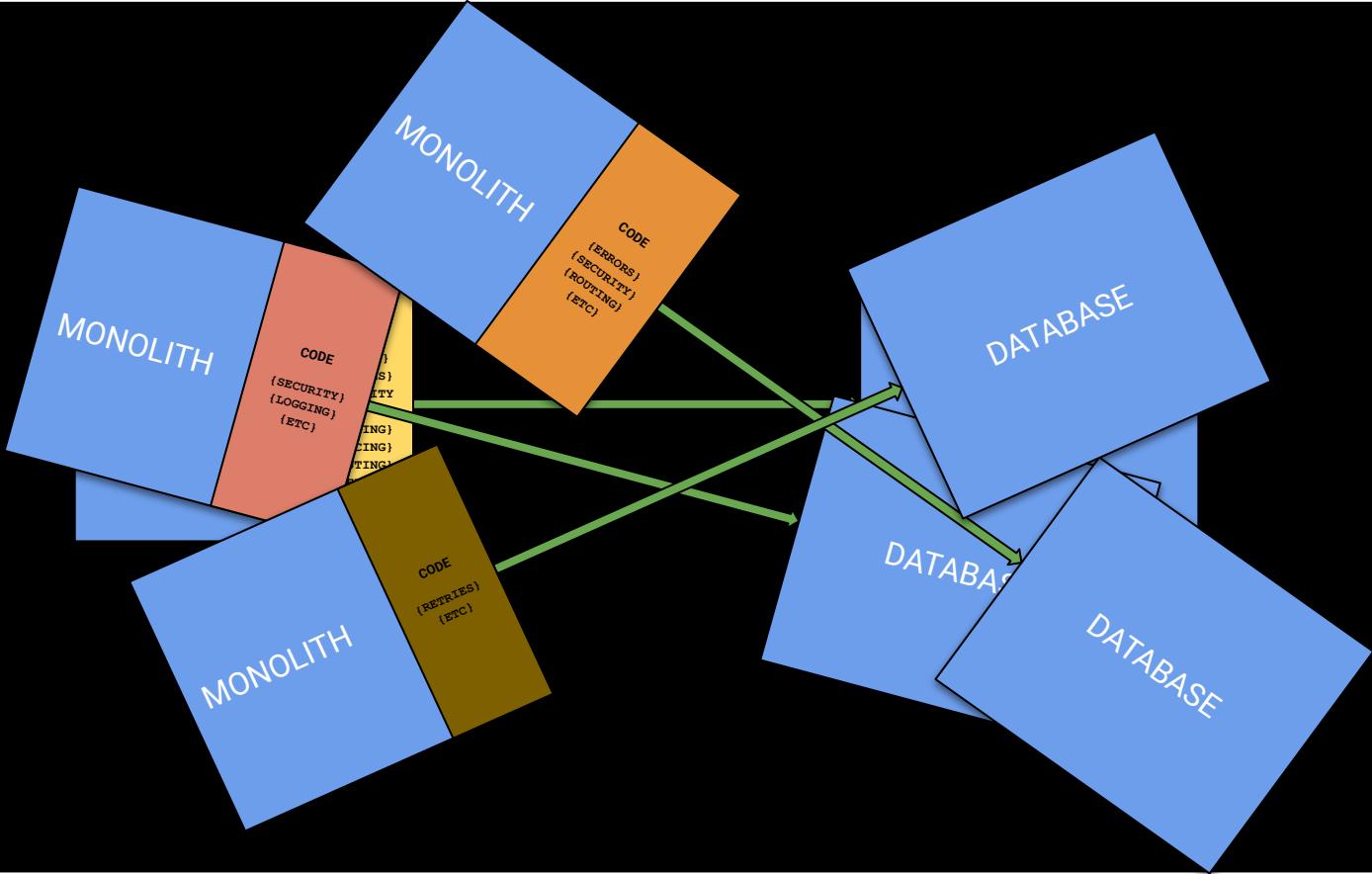
TRACING

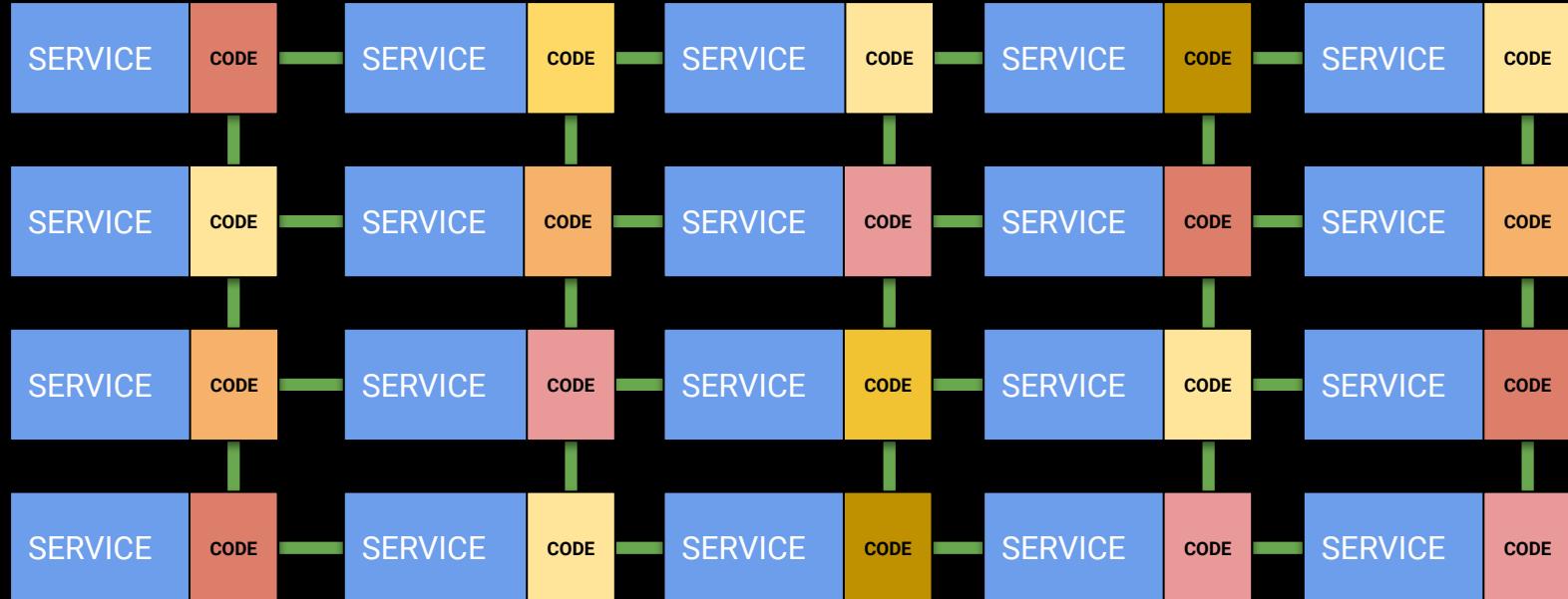
RESILIENCY

ZERO-TRUST

CHAOS

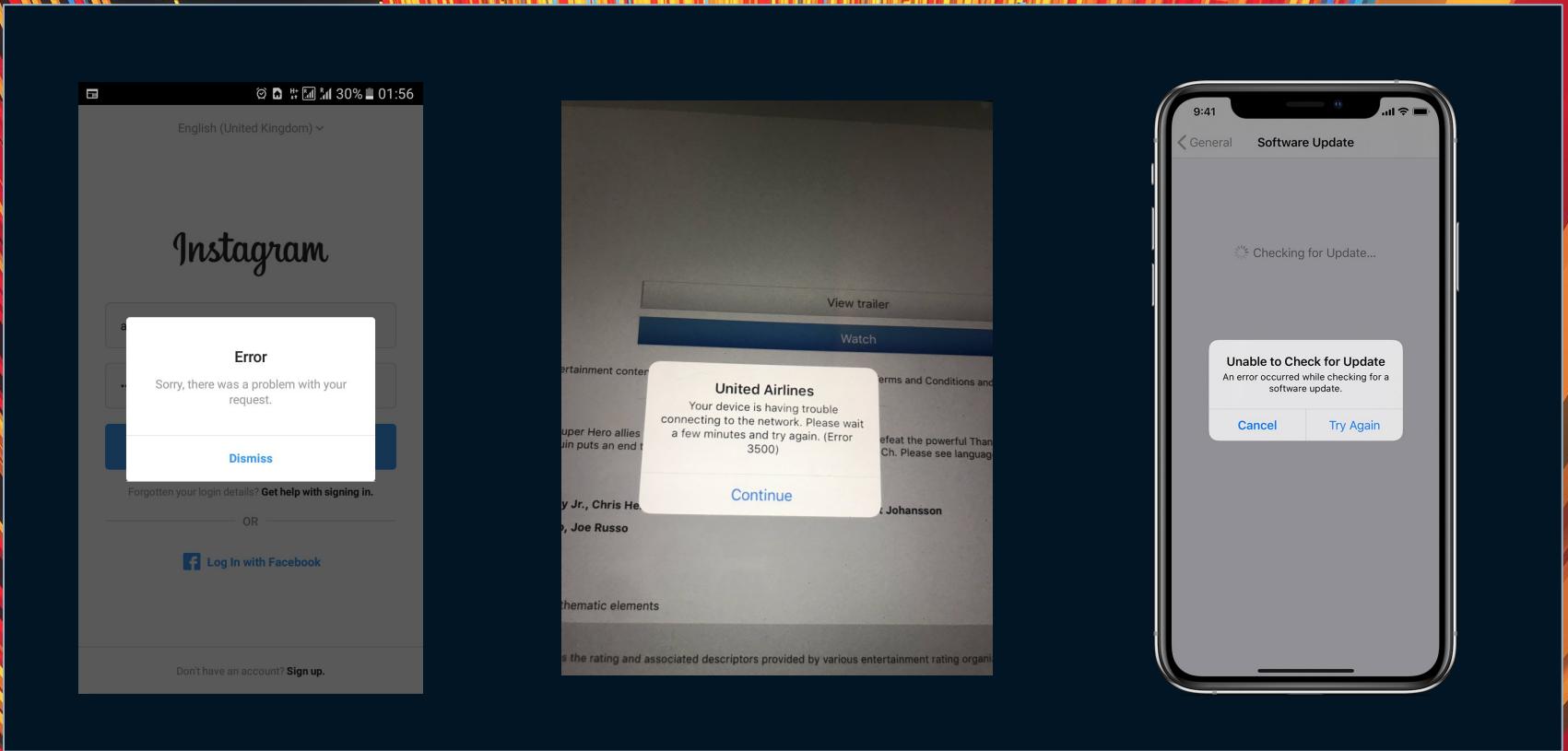








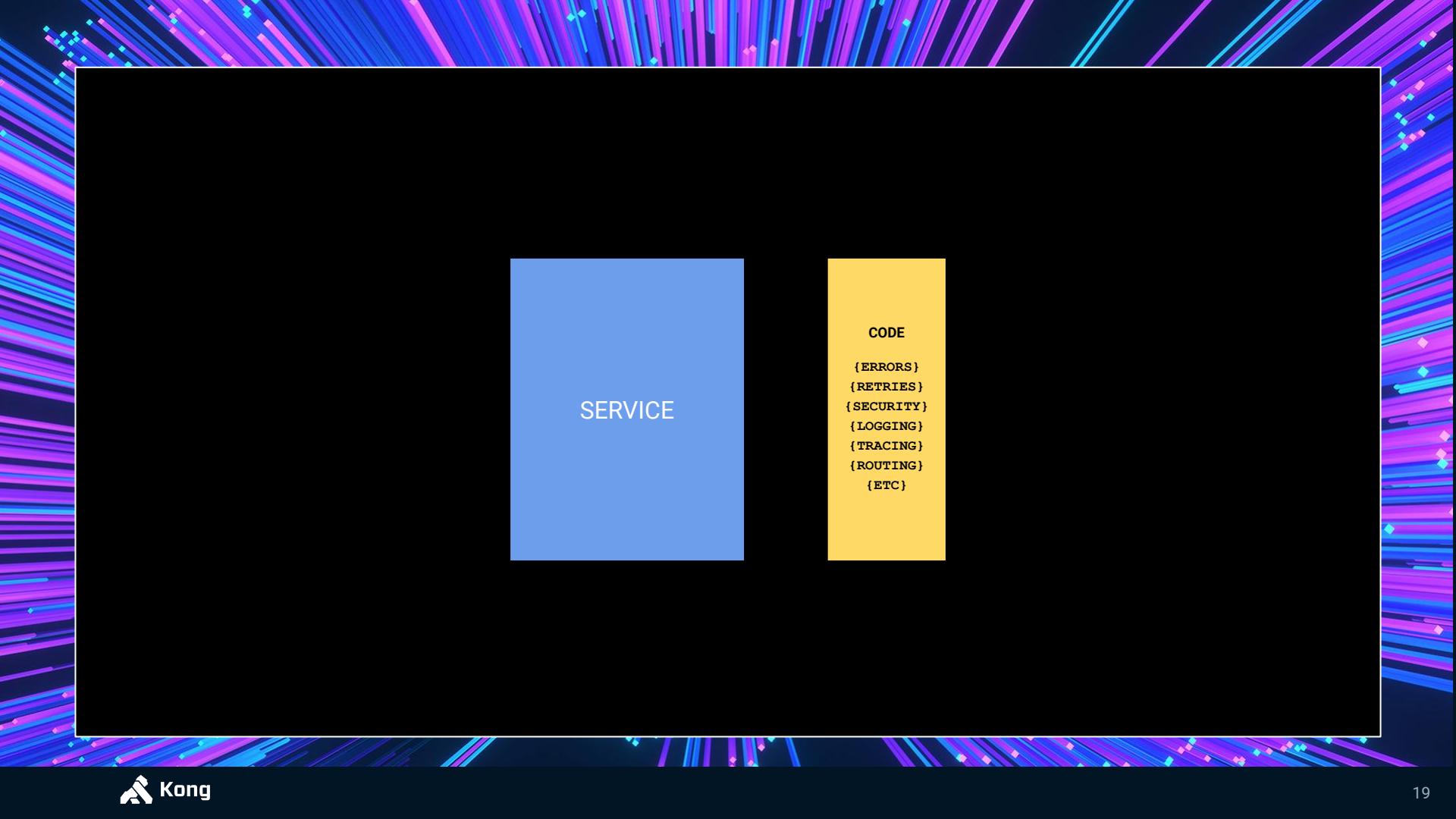
FRAGMENTATION
&
POOR IMPLEMENTATIONS



SERVICE

CODE

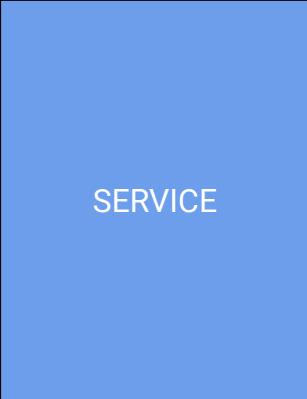
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{RETRIES}
{SECURITY}
{LOGGING}
{TRACING}
{ROUTING}
{ETC}



SERVICE

CODE

{ERRORS}
{RETRIES}
{SECURITY}
{LOGGING}
{TRACING}
{ROUTING}
{ETC}



SERVICE

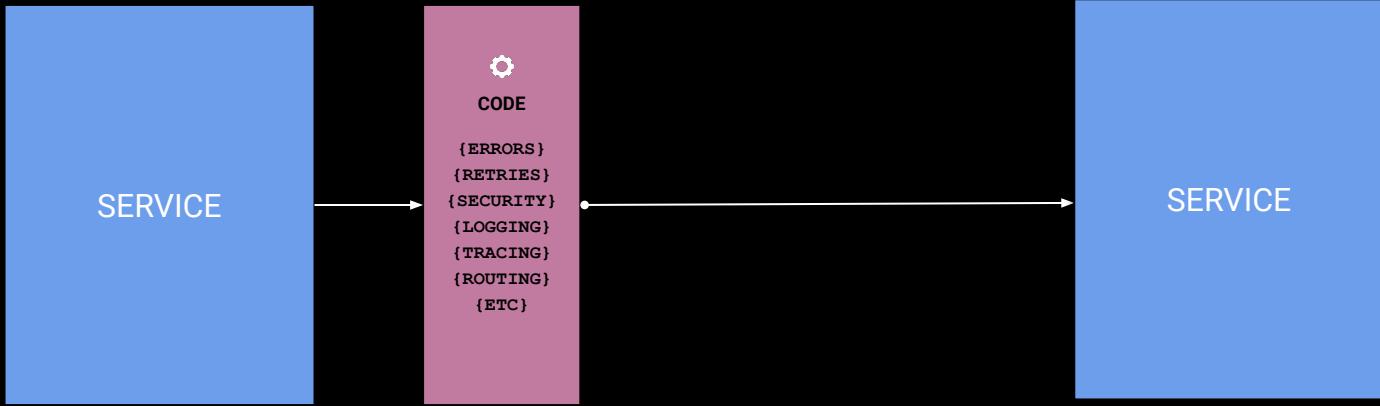


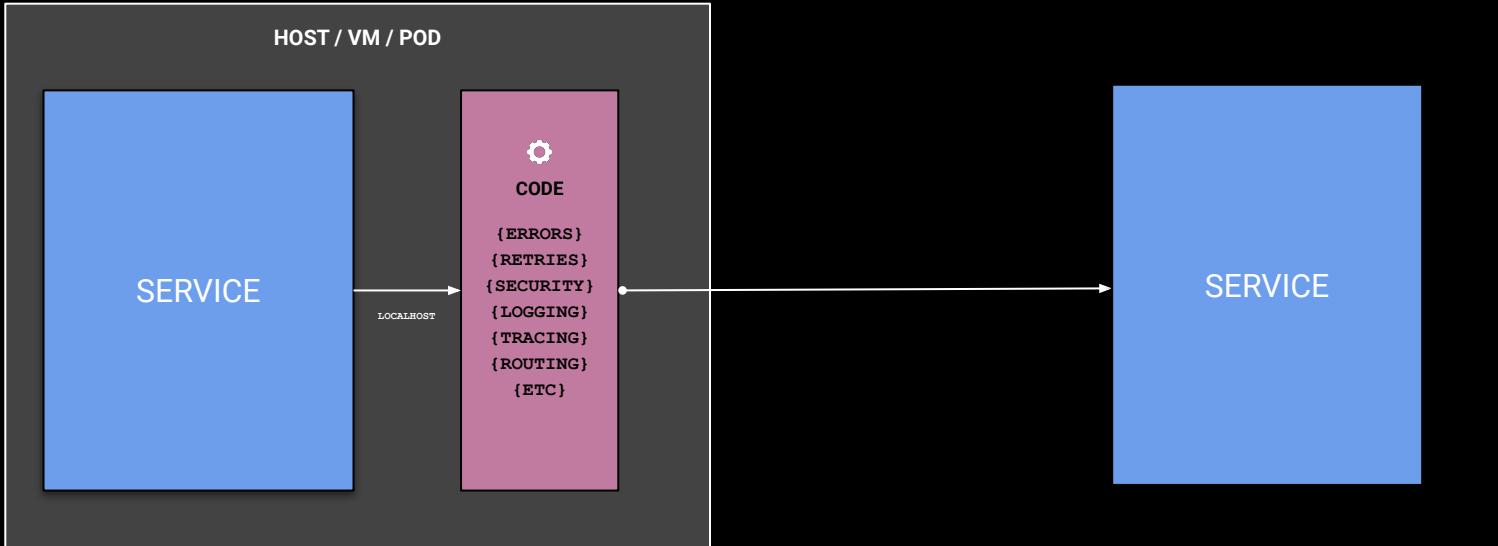
CODE

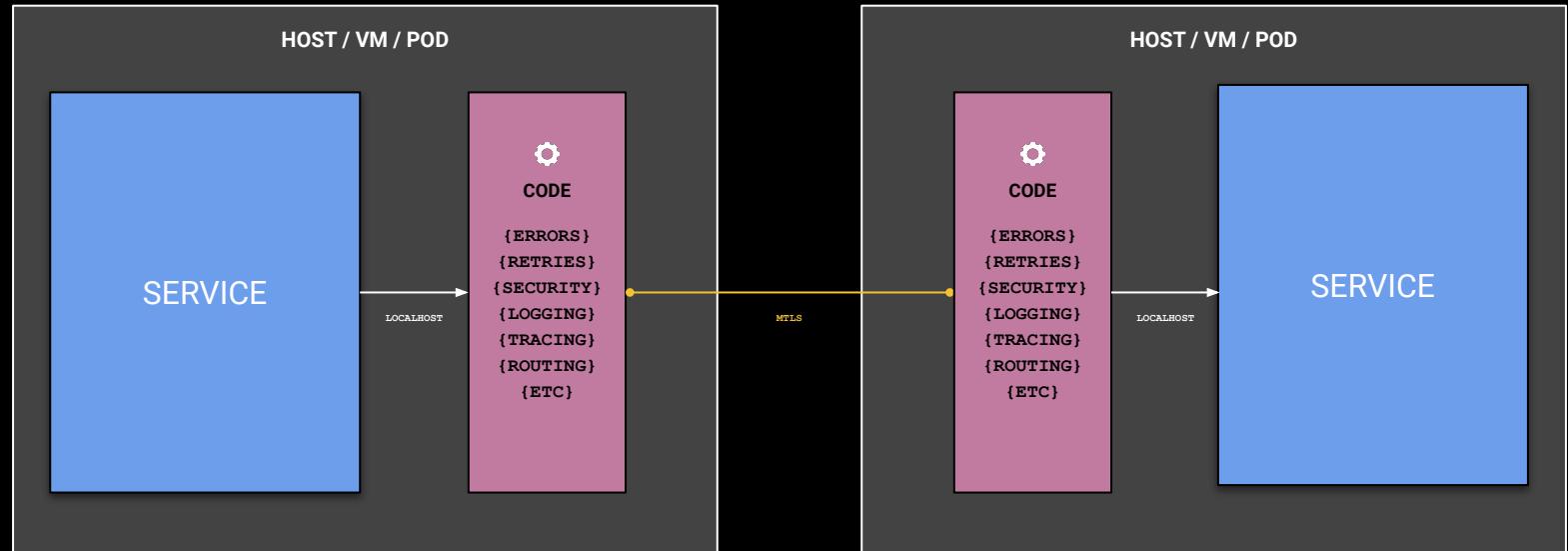
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{RETRIES}
{SECURITY}
{LOGGING}
{TRACING}
{ROUTING}
{ETC}



Separate Executable

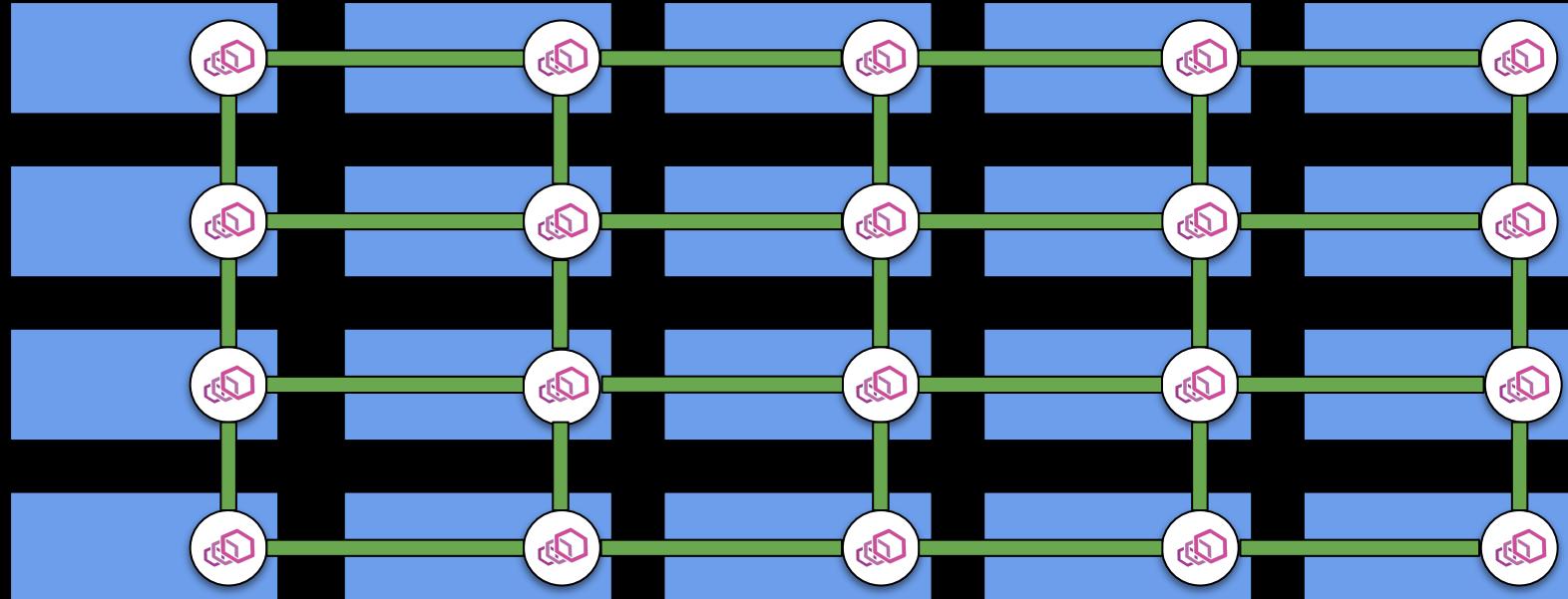


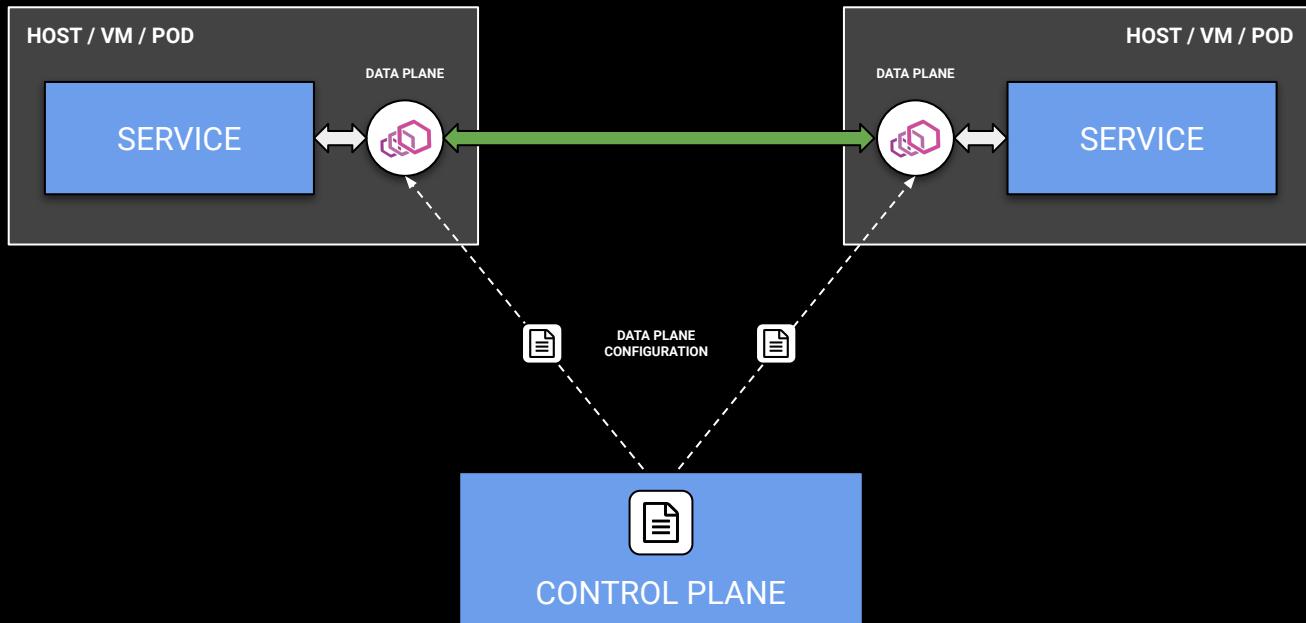




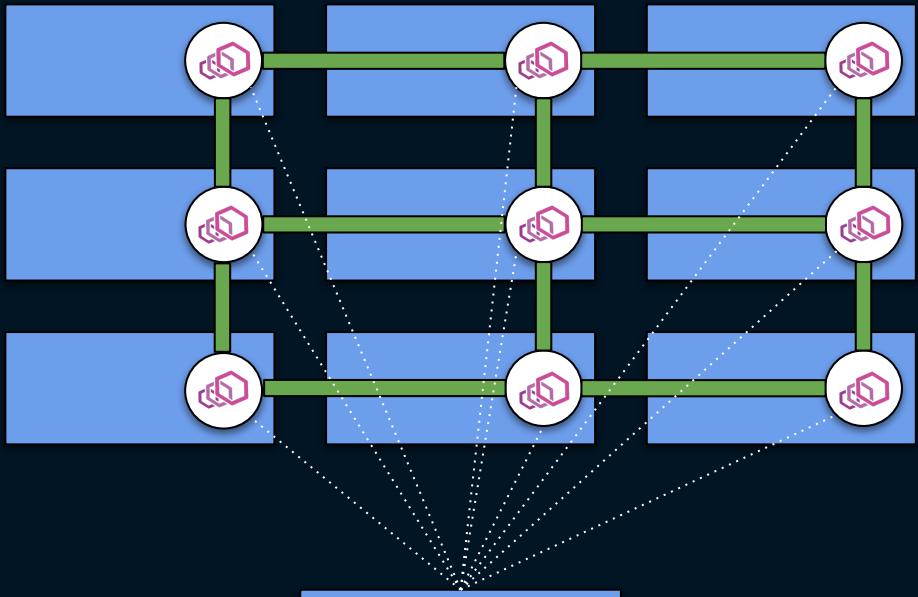


 envoyproxy.io

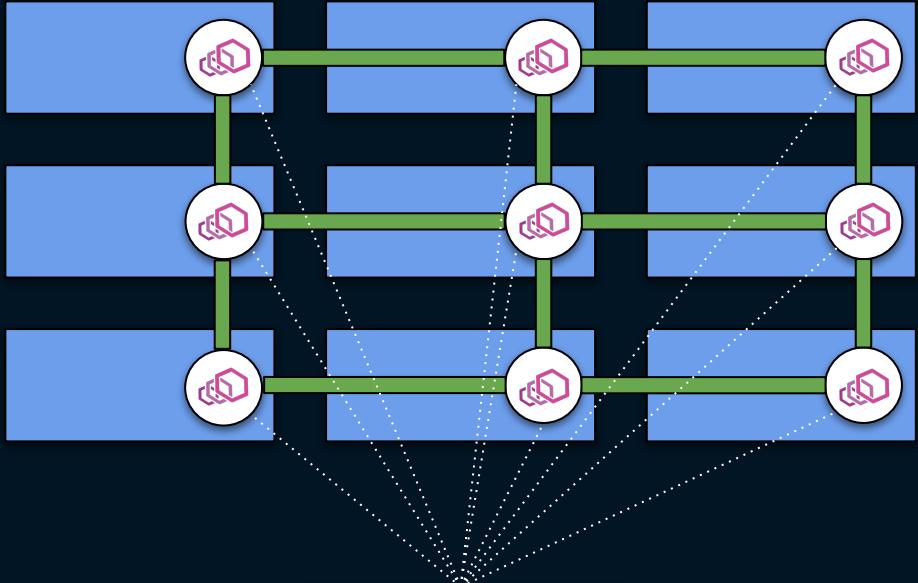




SERVICE MESH

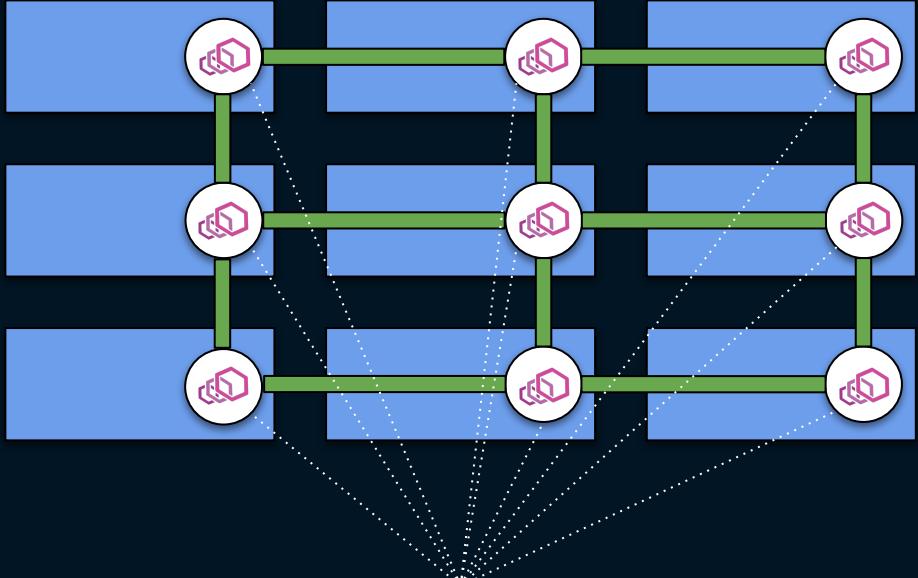


SERVICE MESH



Kuma

SERVICE MESH



 Kuma



Kuma



OPEN SOURCE

Released on September 10, 2019 by Kong

~ 1,400 GitHub stars

Apache License 2.0



By [Marco Palladino](#) on September 10, 2019

Introducing Kuma: The Universal Service Mesh

[Community](#) | [Kuma](#) | [Product Announcements](#) | 2 MIN READ

We are excited to announce the release of a new open source project, [Kuma](#) – a modern, universal control plane for service mesh! Kuma is based on Envoy, a powerful proxy designed for cloud native applications. Envoy has become the de-facto industry sidecar proxy, with service mesh becoming an important implementation in the cloud native ecosystem as monitoring, security and reliability become increasingly important for microservice applications at scale.

"It's been gratifying to see how quickly Envoy has been adopted by the tech community, and I'm really excited by Kong's new 'Kuma' project," said Matt Klein, creator of the Envoy proxy. "Kuma extends Envoy's use cases and will make it faster and easier for companies to create cloud native applications and manage them in a service mesh."

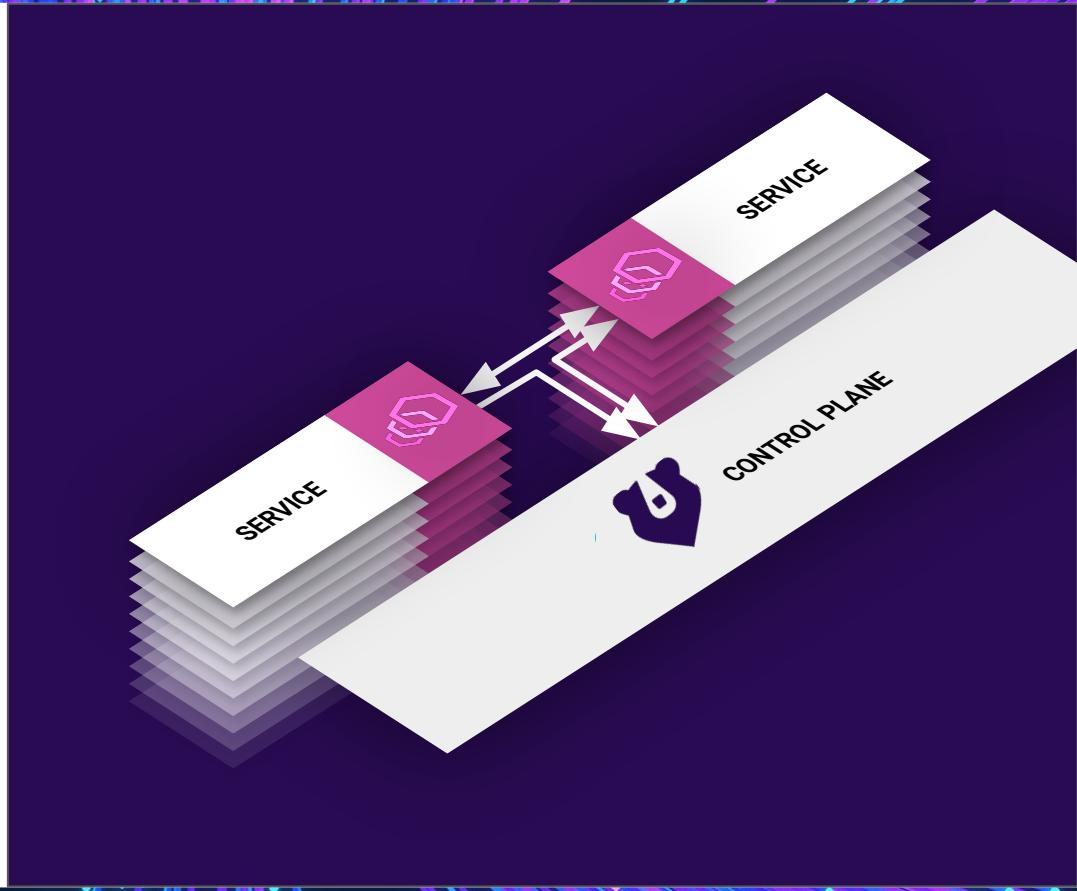
Kuma addresses limitations of first-generation service mesh technologies by enabling seamless management of any service on the network, including L4 and L7 traffic, as well as microservices and APIs. Its fast data plane and advanced control plane makes it significantly easier to use and adopt across every team. Kuma runs on any platform, including Kubernetes, virtual machines, containers, bare metal and legacy environments, to enable a more practical cloud native journey across an entire organization.

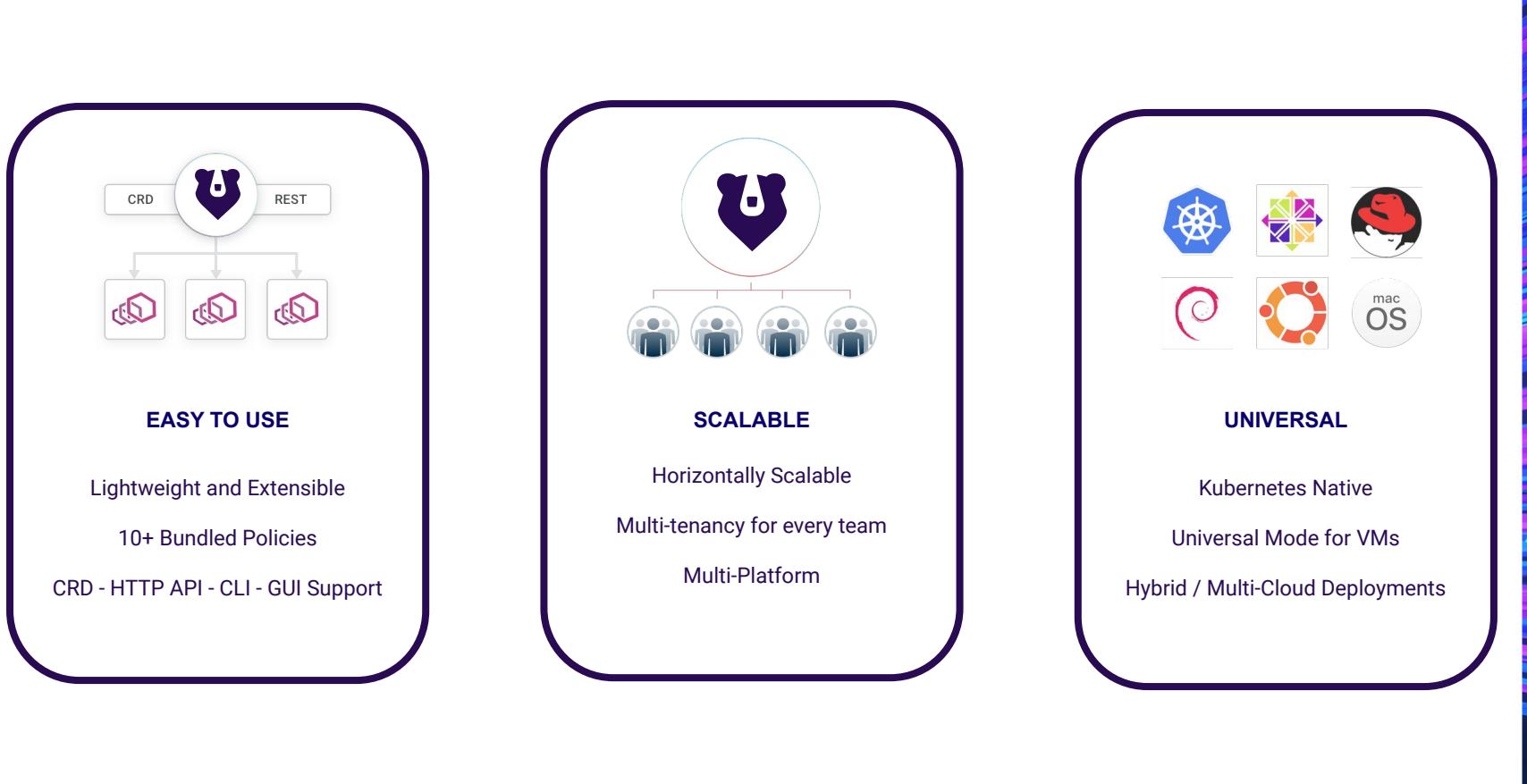
MODERN

Written in GoLang

Native Envoy Integration

Clean Design





EASY TO USE

Native CRDs

Universal CLI

HTTP API

Built-in GUI



Filter by Mesh:

All Meshes

Overview

Meshes

Dataplanes

POLICIES

Fault Injections

Health Checks

Proxy Templates

Traffic Logs

Traffic Permissions

Traffic Routes

Traffic Traces

RESOURCES

Kuma Documentation

Kuma Community Chat

Kuma GitHub Repository

Collapse Sidebar

Meshes > all > Dataplanes >

Dataplanes for all

	Status	Name	Mesh	Tags
✓	● Online	billing-1	default	ENV production REGION us SERVICE billing VERSION 1.1-prod
View	● Online	billing-2	default	ENV production REGION eu SERVICE billing VERSION 1.1-prod
View	● Offline	billing-3	default	ENV production REGION us SERVICE billing VERSION 1.1-prod
View	● Offline	billing-4	default	ENV production REGION eu SERVICE billing VERSION 1.1-prod
View	● Offline	dp-echo-1	default	ENV staging REGION us SERVICE echo
View	● Offline	mongo-1	default	ENV production REGION us SERVICE mongo VERSION 4.2.6

Dataplane: billing-1

Overview [YAML](#)

Entity Overview for billing-1

```
type: Dataplane
mesh: default
name: billing-1
networking:
  inbound:
    - interface: '127.0.0.1:10000:9000'
  tags:
```

COMMUNITY FRIENDLY

Open Governance

Bi-Weekly Community Calls

1st Envoy-based CP to be donated

github.com/cncf/toc/issues/436



By Marco Palladino on April 14, 2020

Kuma Open Governance and Community Calls

[Community](#) | [Kuma](#) | [Open Source](#) | < 1 MIN READ

We are very proud to announce some very important community updates for Kuma, with the goal of making Kuma more open and more inclusive to the broader open source ecosystem:

1. An open governance policy
2. Bi-weekly community calls

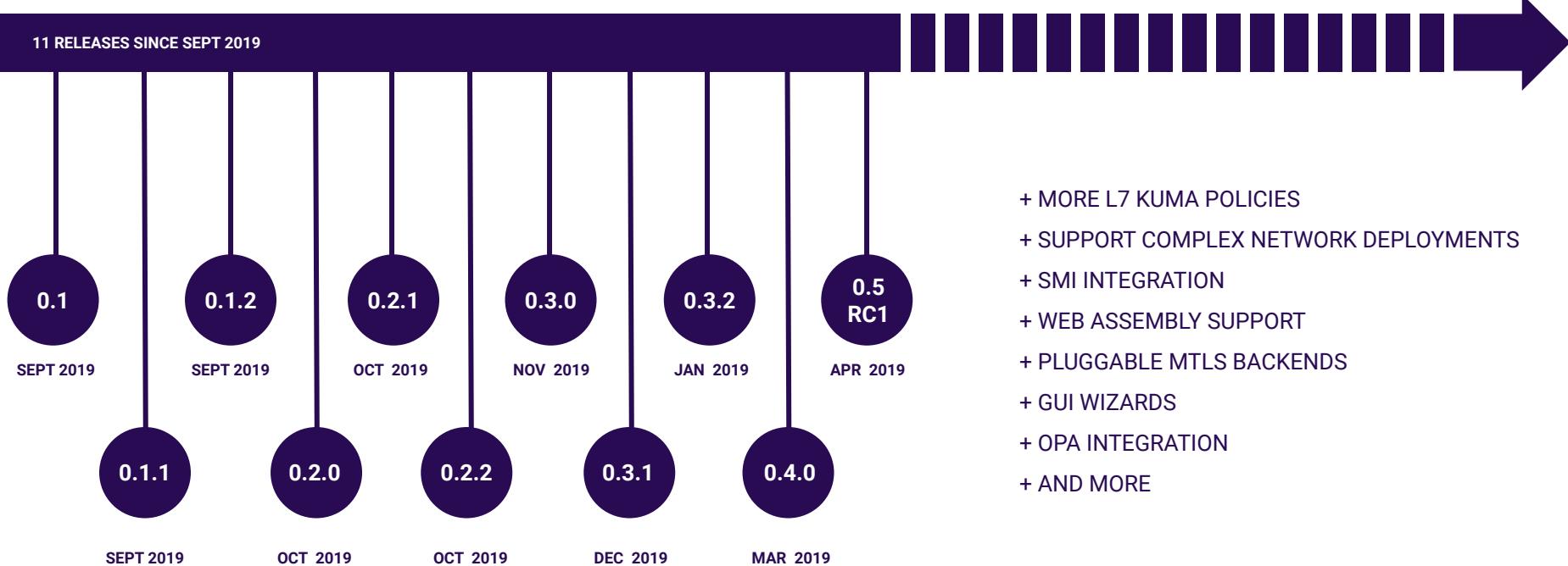
Open Governance

The Kuma project now ships with open governance guidelines! This makes Kuma the **only** Envoy-based control plane for service mesh with an open governance policy in the CNCF landscape.

The open governance policy was merged last week into "master" and provides guidelines to elect new maintainers of the project from the community. You can read the new governance policy [here](#).

With this change, we commit to making Kuma a good OSS citizen in the community and providing a path to become maintainers to anybody who is a contributor to the Kuma project's success and a citizen helping the project succeed.

11 RELEASES SINCE SEPT 2019



mTLS



Traffic Permissions



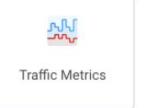
DP/CP Security



Traffic Route



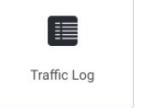
Fault Injections



Traffic Metrics



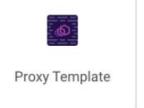
Traffic Trace



Traffic Log



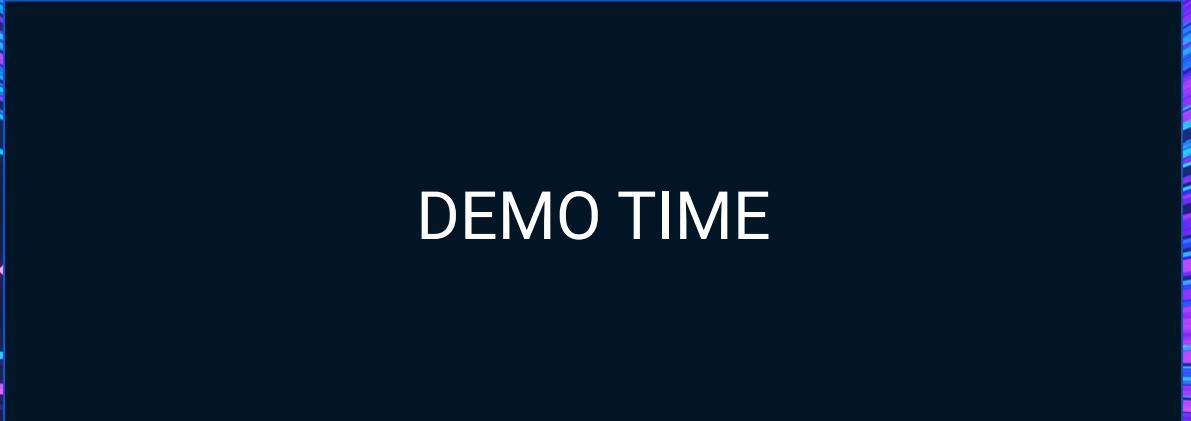
Mesh/Multi-tenancy



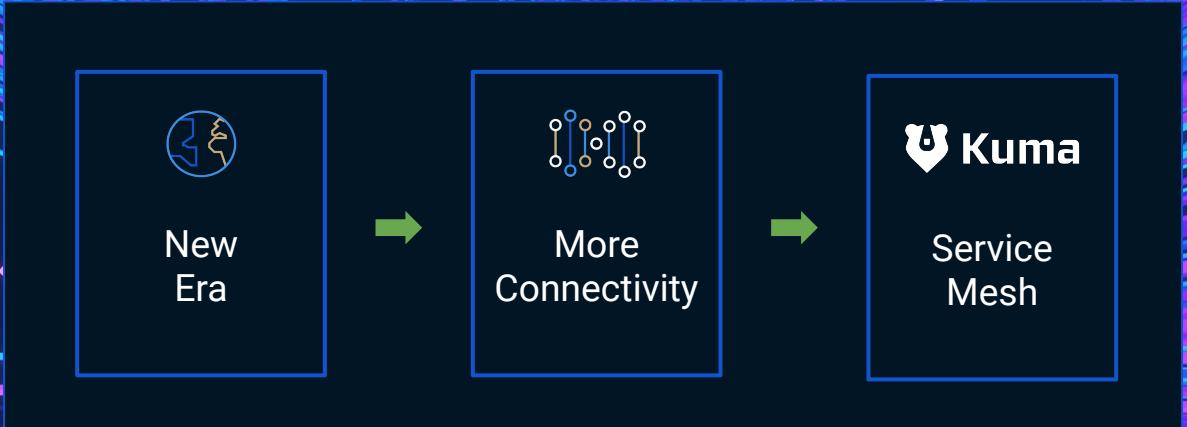
Proxy Template



Healthcheck



DEMO TIME





KUMA.IO



GITHUB.COM/KONG/KUMA

GITHUB.COM/KONG/KUMA-GUI

GITHUB.COM/KONG/KUMA-WEBSITE



KUMA-MESH.SLACK.COM



@KUMAMESH