

RED HAT FORUMS

APM PRIMA E DOPO IL CLOUD

Service mesh

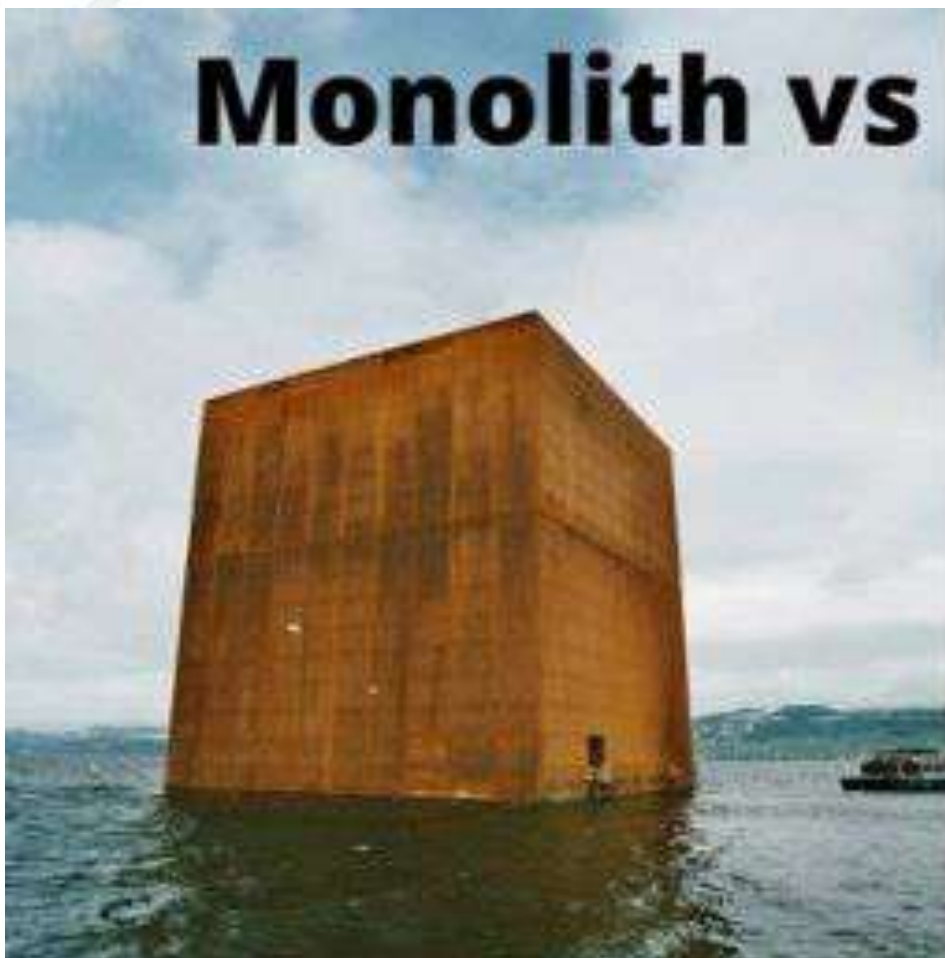
Filippo Calà Solution Architect
Giuseppe Bonocore Solution Architect

6699



```
apiVersion: redhat/v2
kind: SrSolutionArchitect
metadata:
  name: Filippo Calà
  namespace: ITI
  websites:
    linkedin: filippocala
    github: filippo_cala
    twitter: filippo_cala
  annotations:
    specialist: openshift, cloud, appdev, devops, apm
  labels:
    martial_arts: shinseikai full contact karate
spec:
  replicas: 1
  containers:
    - image: redhat.io/filippo:latest
```

Monolith vs



Microservices

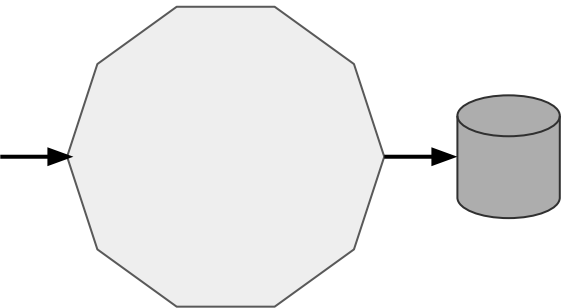


Red Hat



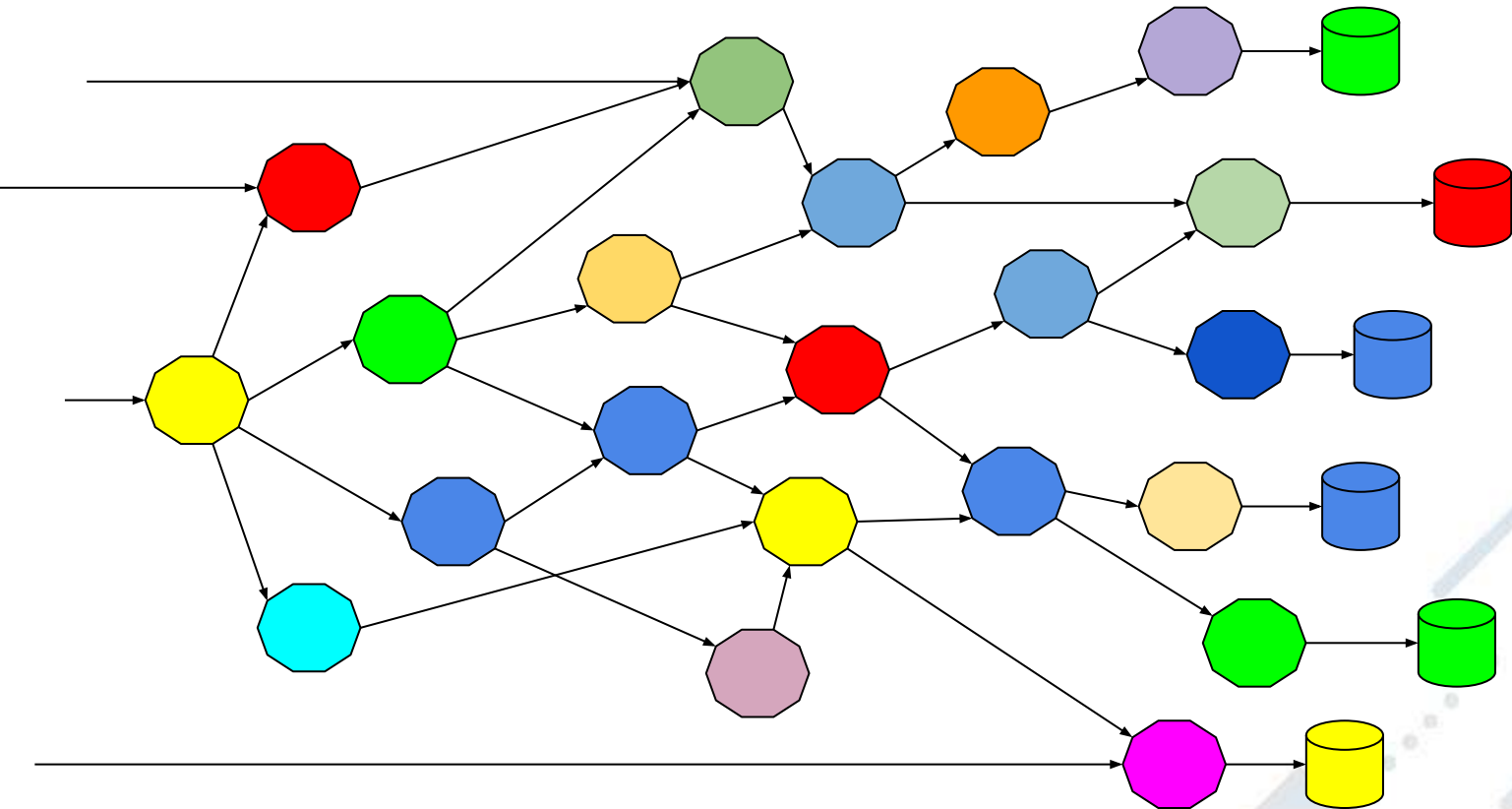
#RedHatOSD

Old School



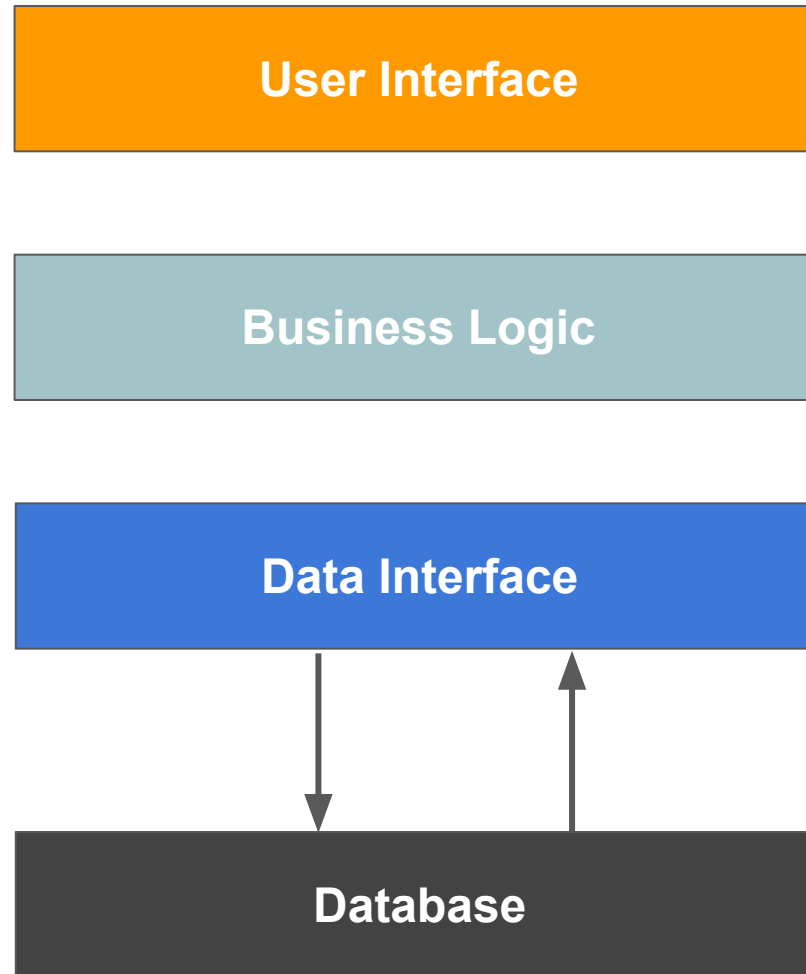
Love Thy Mono

New School

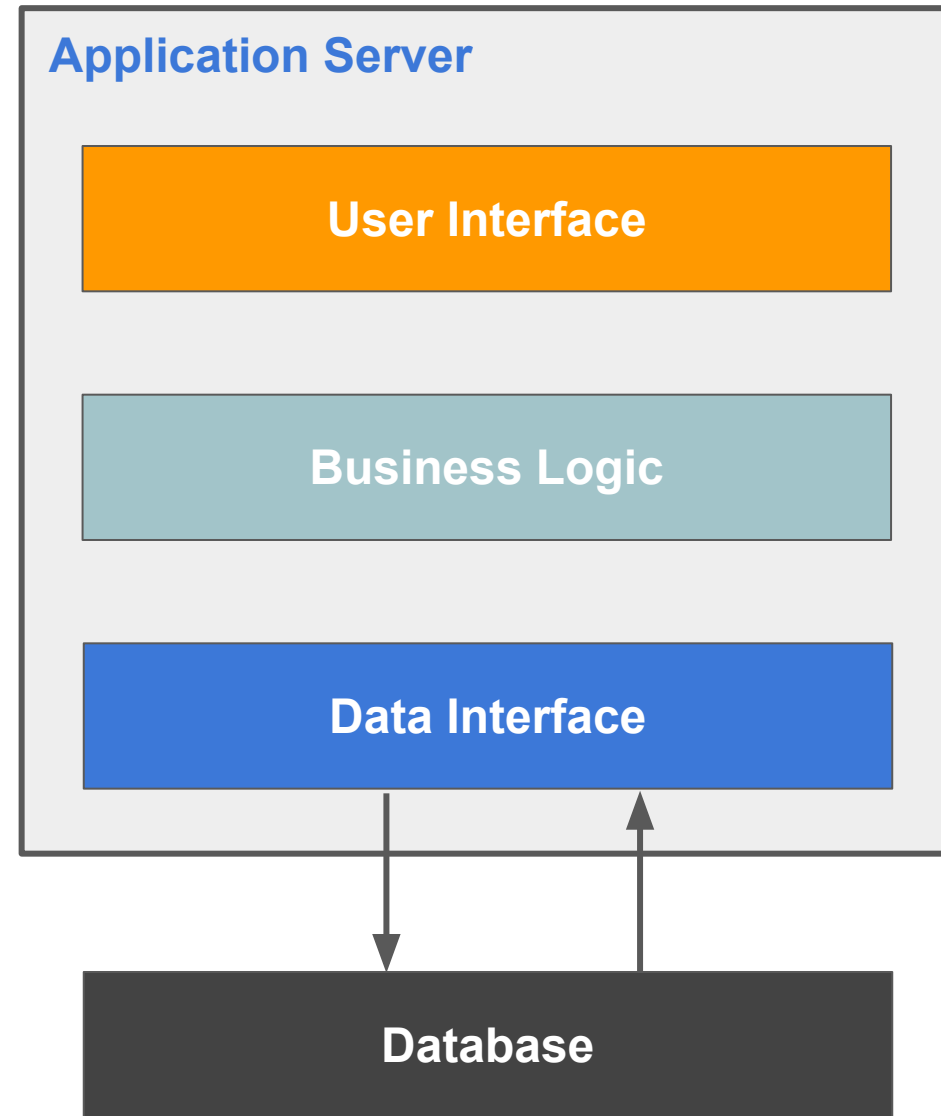


OPENSHIFT

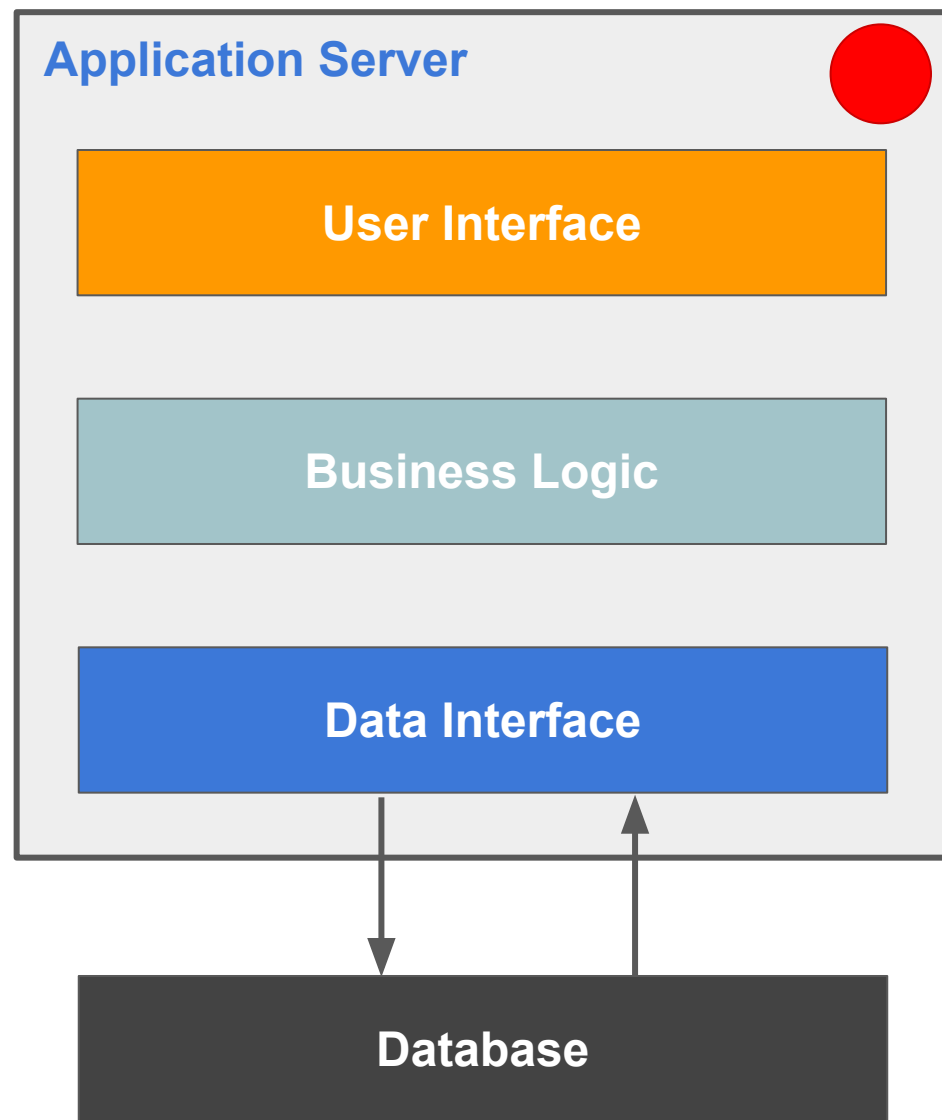
MONOLITHICS APM



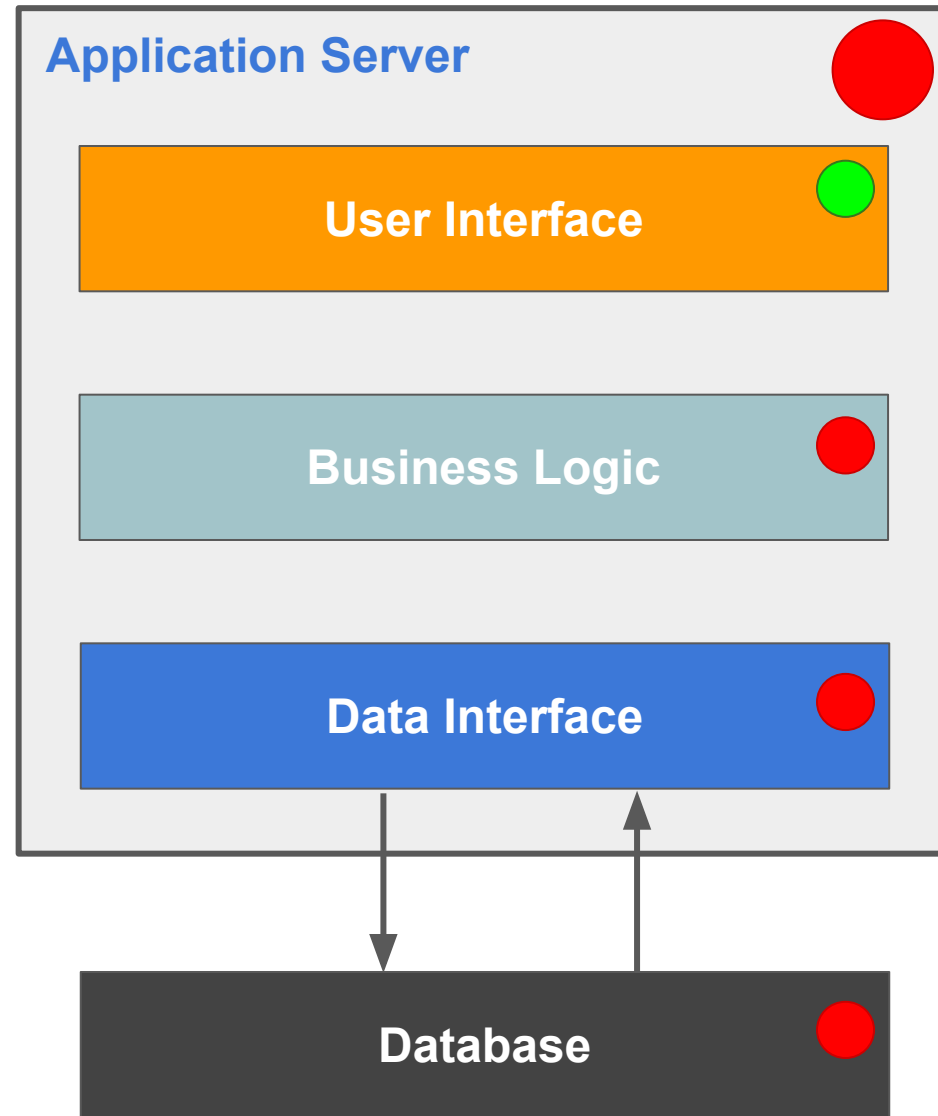
MONOLITHICS APM



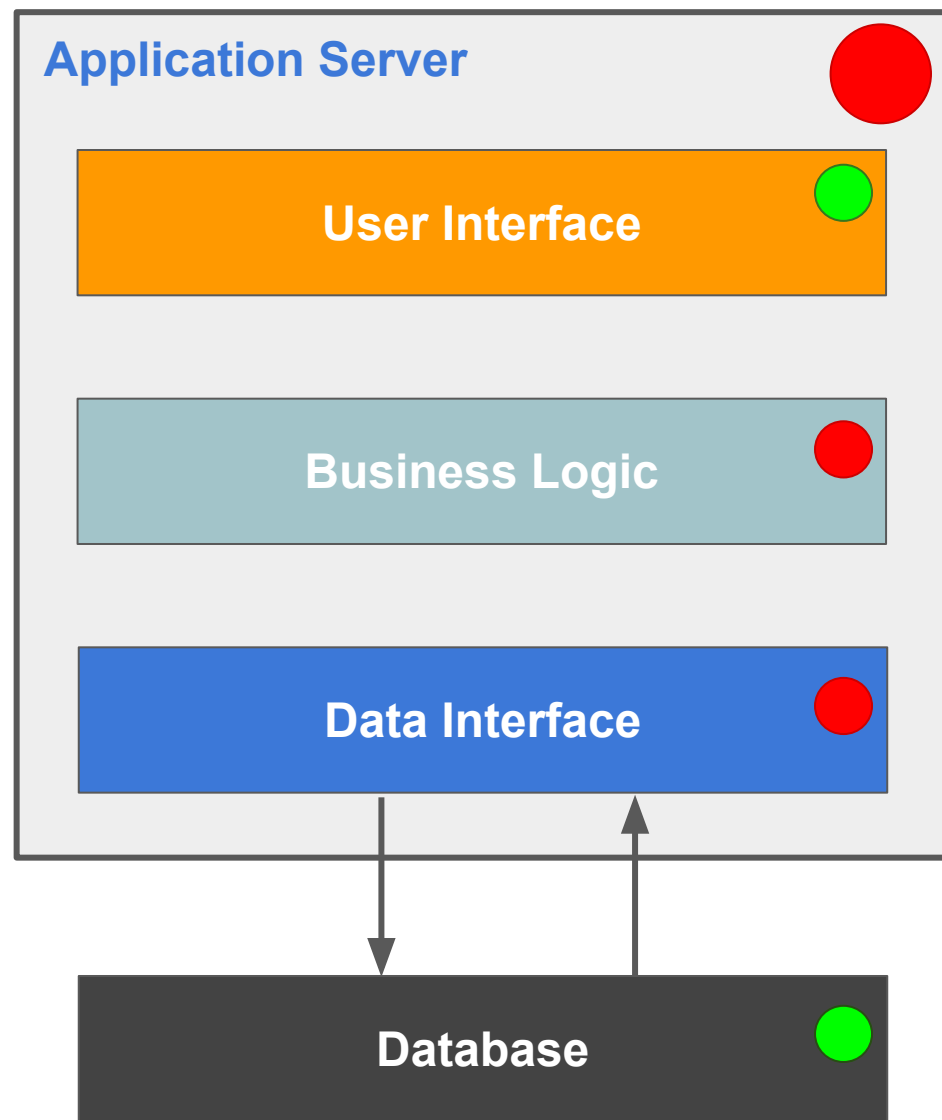
MONOLITHICS APM



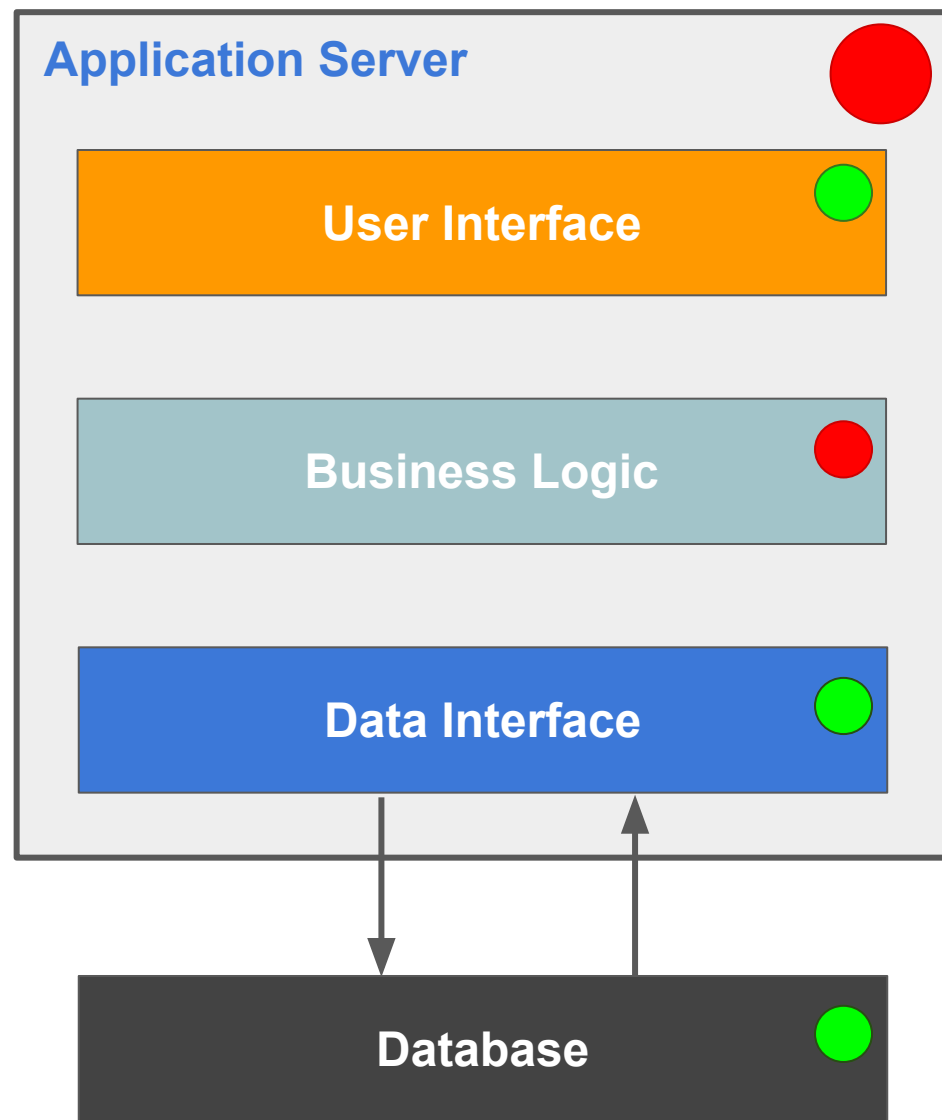
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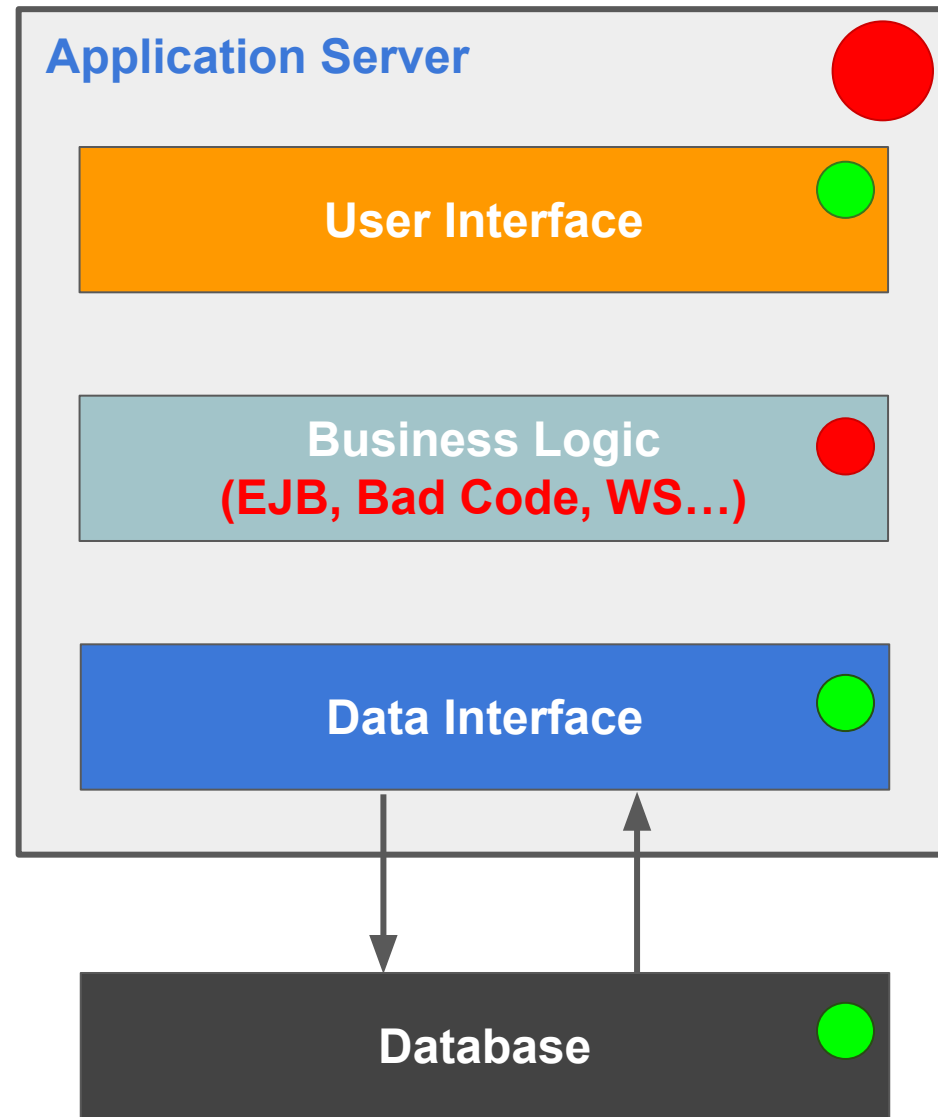
MONOLITHICS APM



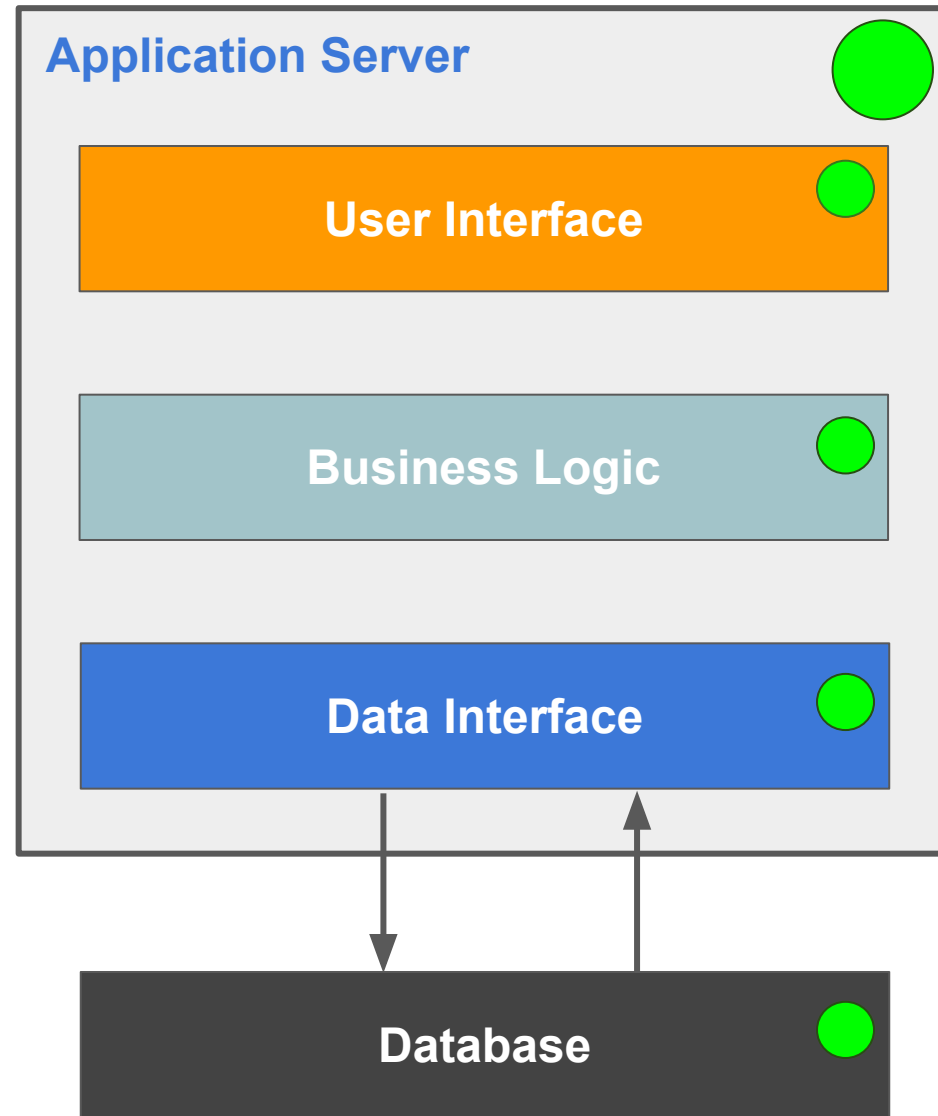
MONOLITHICS APM



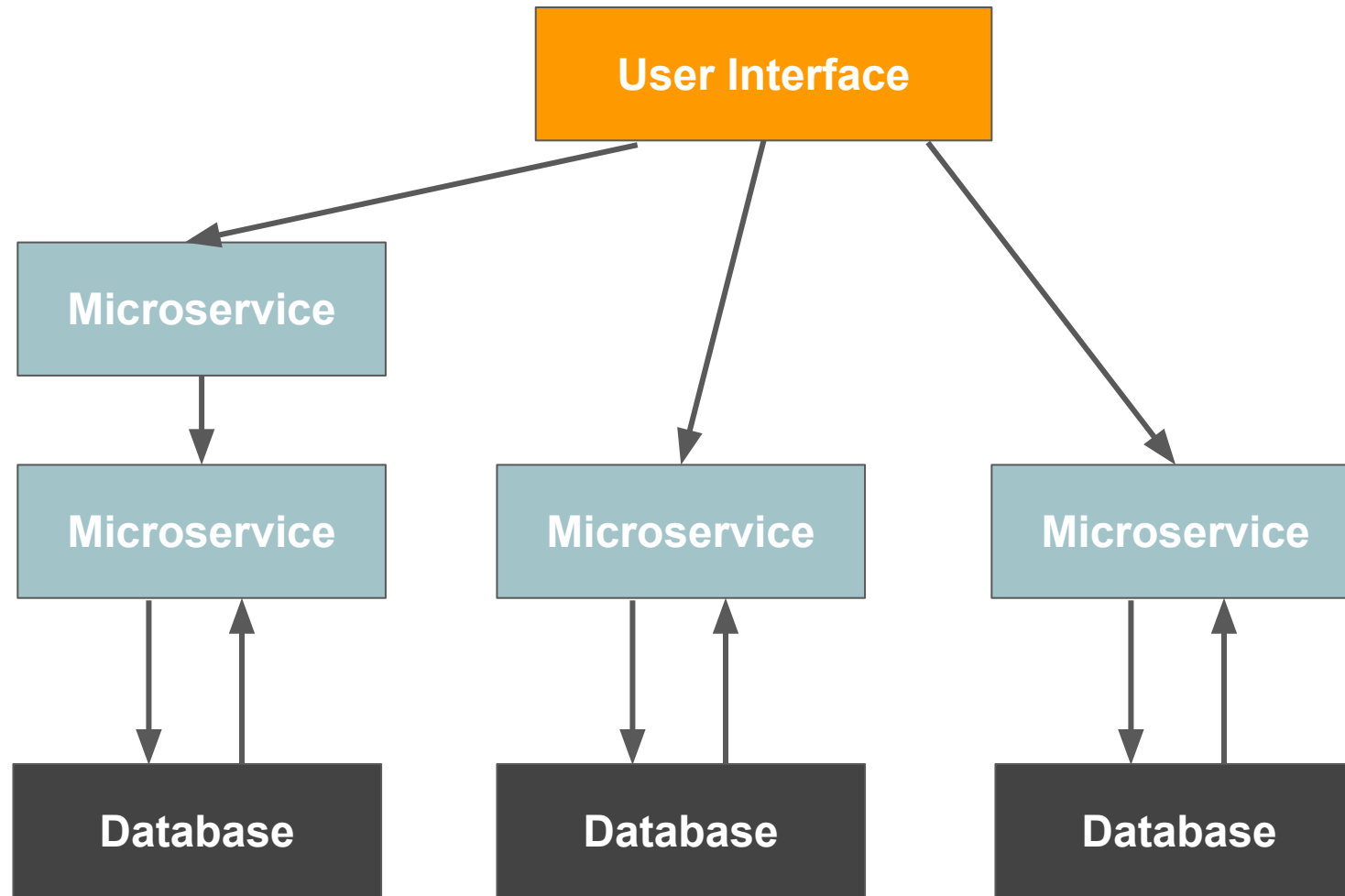
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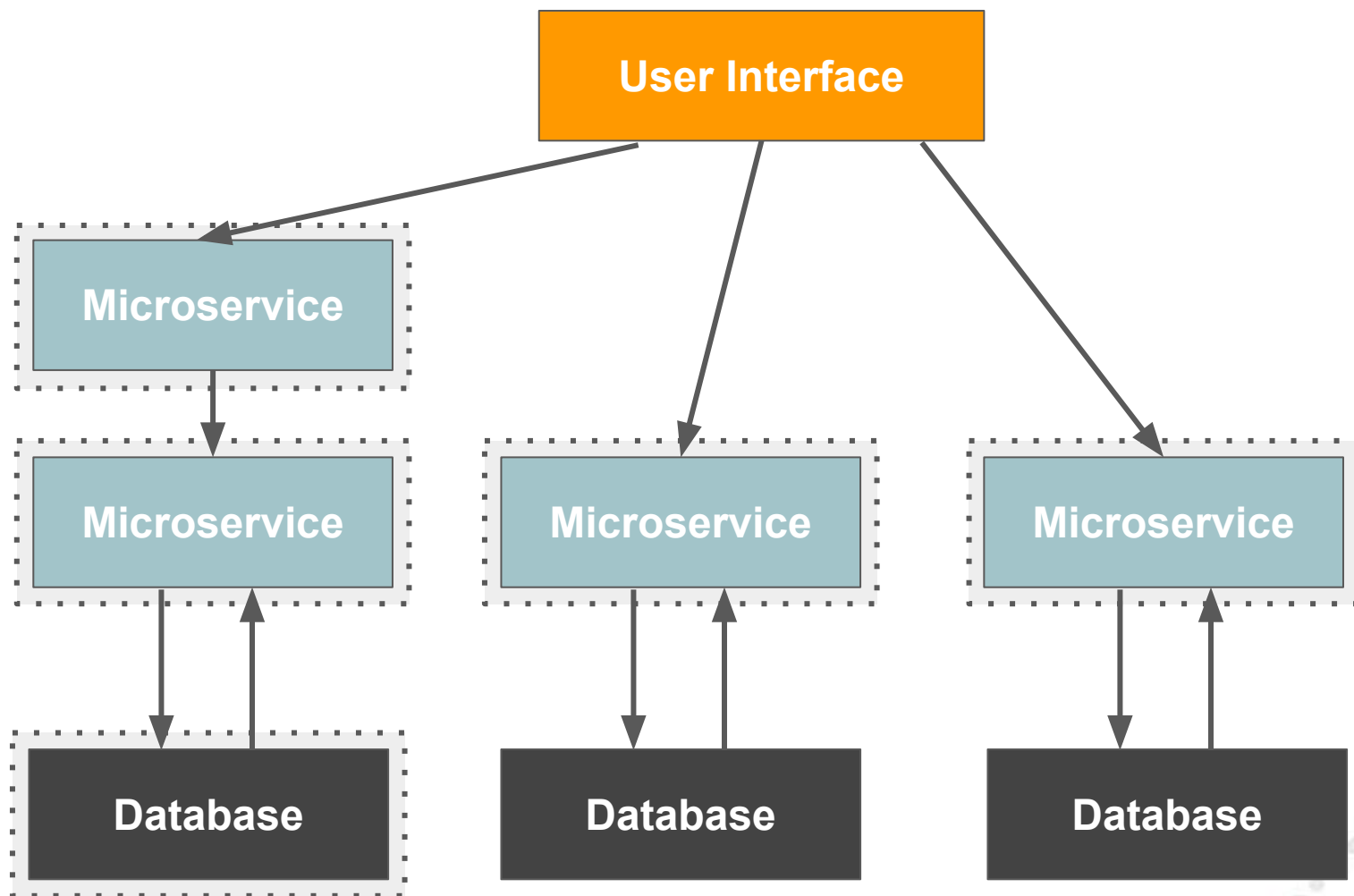
MONOLITHICS APM



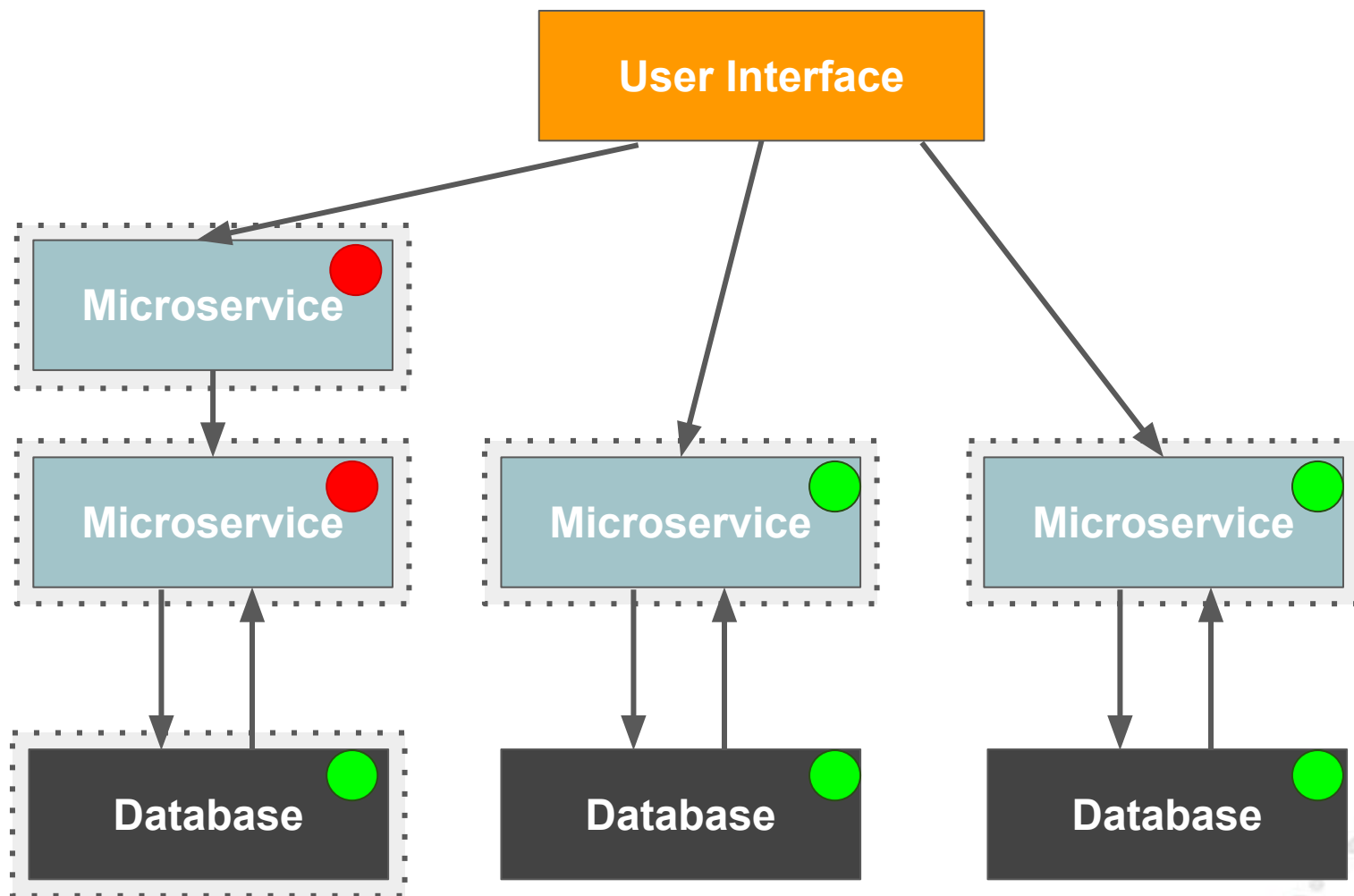
MICROSERVICE APM



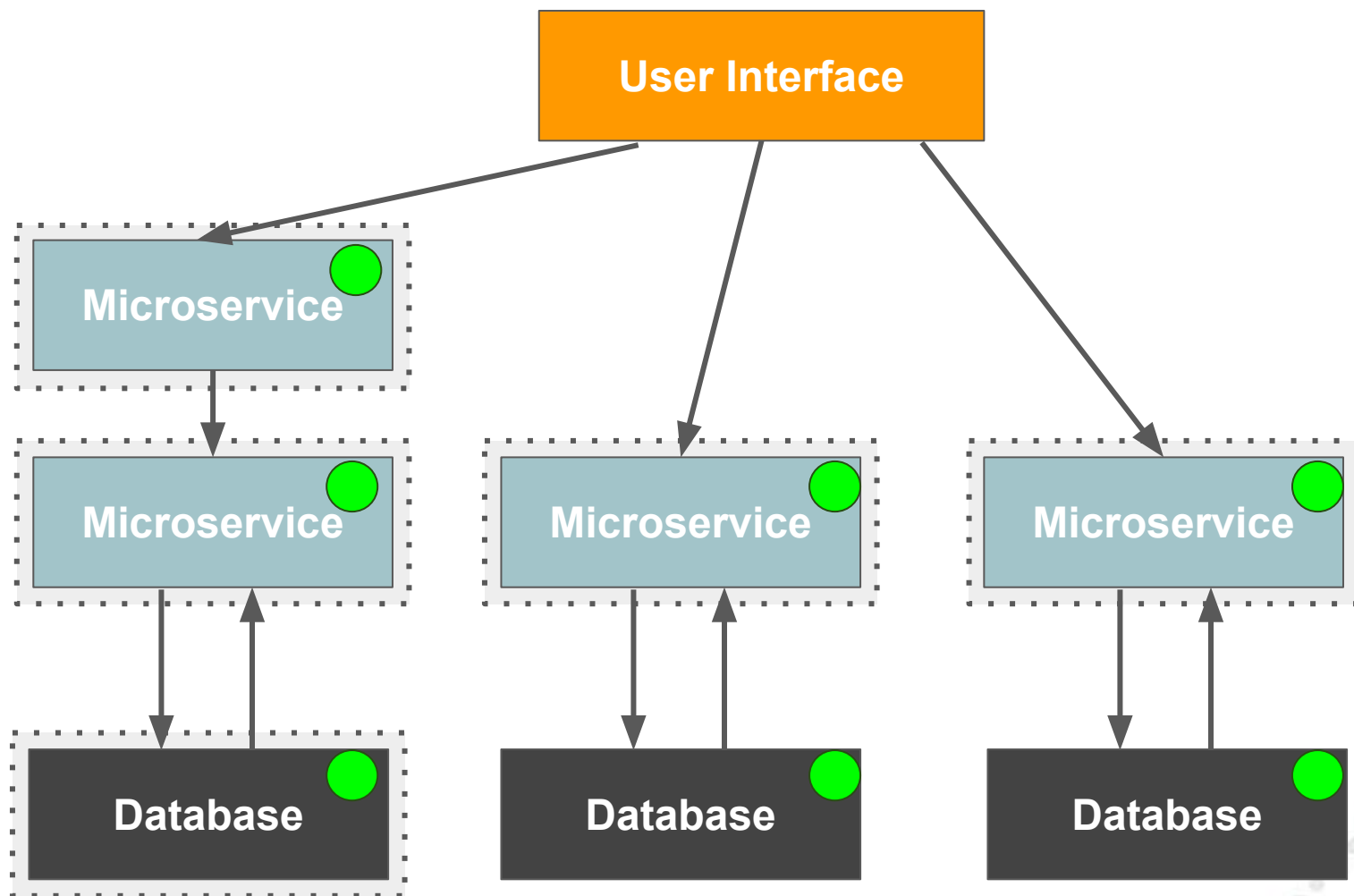
MICROSERVICE APM



MICROSERVICE APM



MICROSERVICE APM



Cloud Native (CNCF)

/klood nādiv/ :

Cloud native technologies empower organizations to build and run scalable applications in modern, dynamic environments such as public, private, and hybrid clouds. Containers, service meshes, microservices, immutable infrastructure, and declarative APIs exemplify this approach¹

1. CNCF Definition

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1. CNCF Definition

Red Hat OpenShift Service Mesh is now available: What you should know

SEPTEMBER 11, 2019 BY BRIAN "REDBEARD" HARRINGTON

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Today, Red Hat OpenShift Service Mesh is now available.

As Kubernetes and Linux-based infrastructure take hold in digitally transforming organizations, modern applications frequently run in a microservices architecture and therefore can have complex route requests from one service to another. With Red Hat OpenShift Service Mesh, we've gone beyond routing the requests between services and included tracing and visualization components that make deploying a service mesh more robust. The service mesh layer helps us simplify the connection, observability and ongoing management of every application deployed on Red Hat OpenShift, the industry's most



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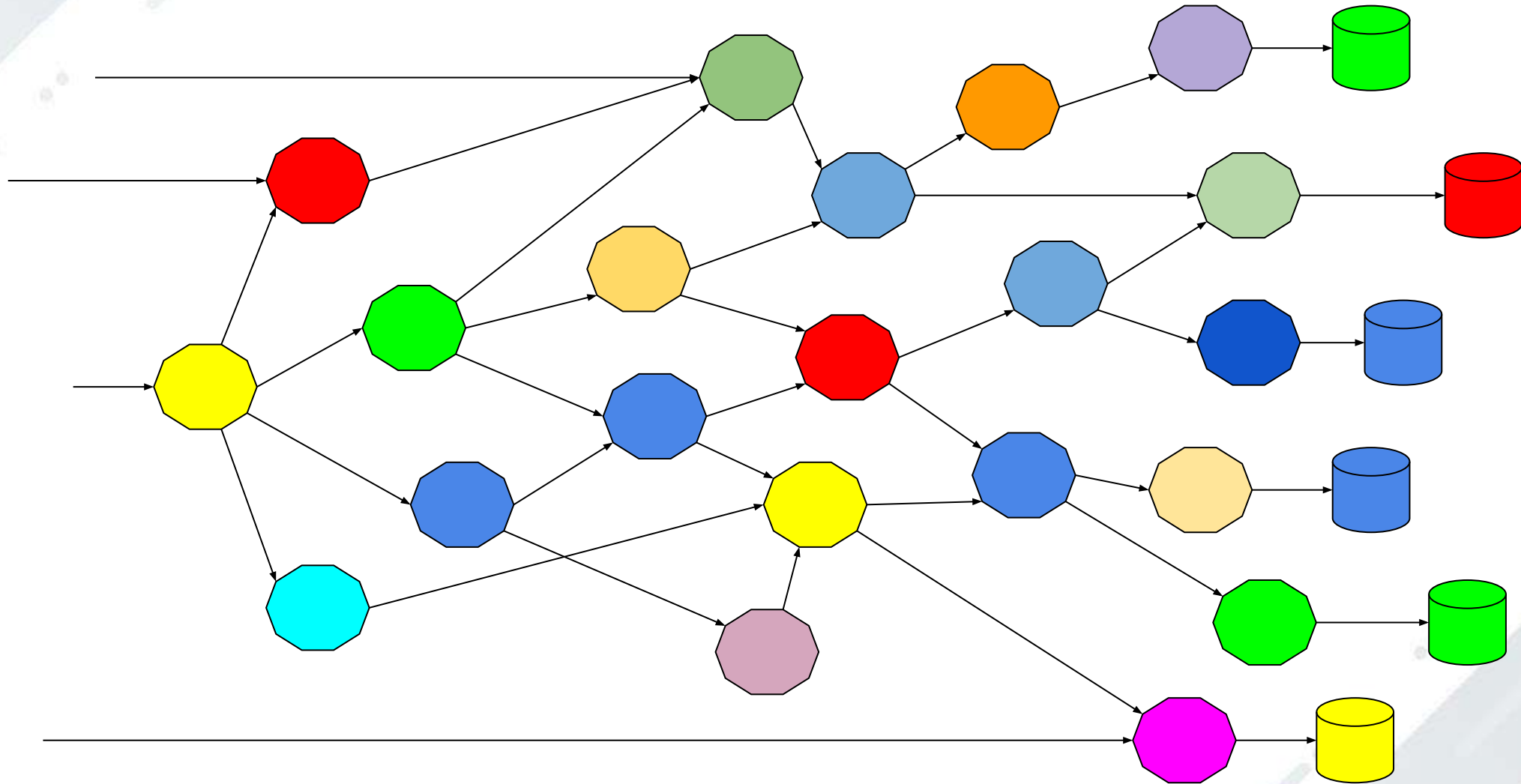
[Serverless \(5\)](#)

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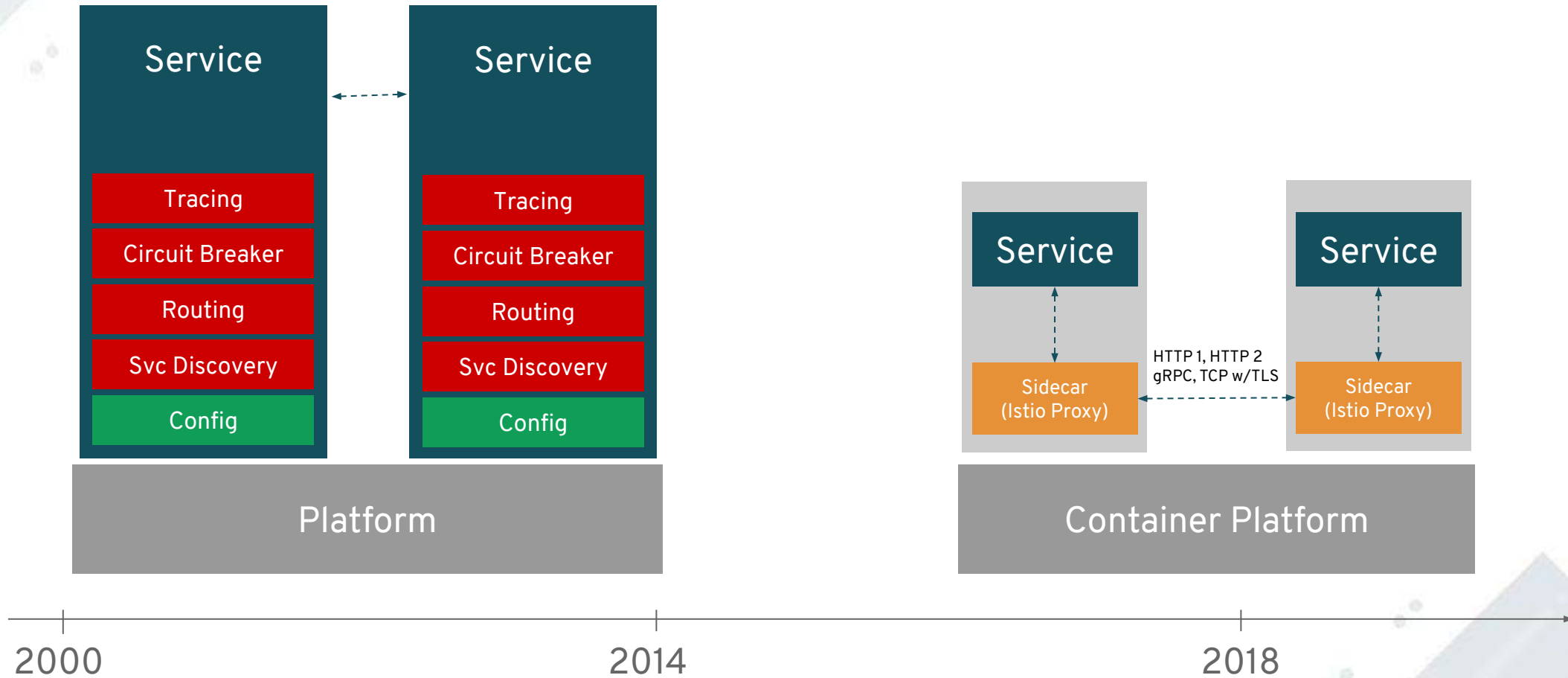
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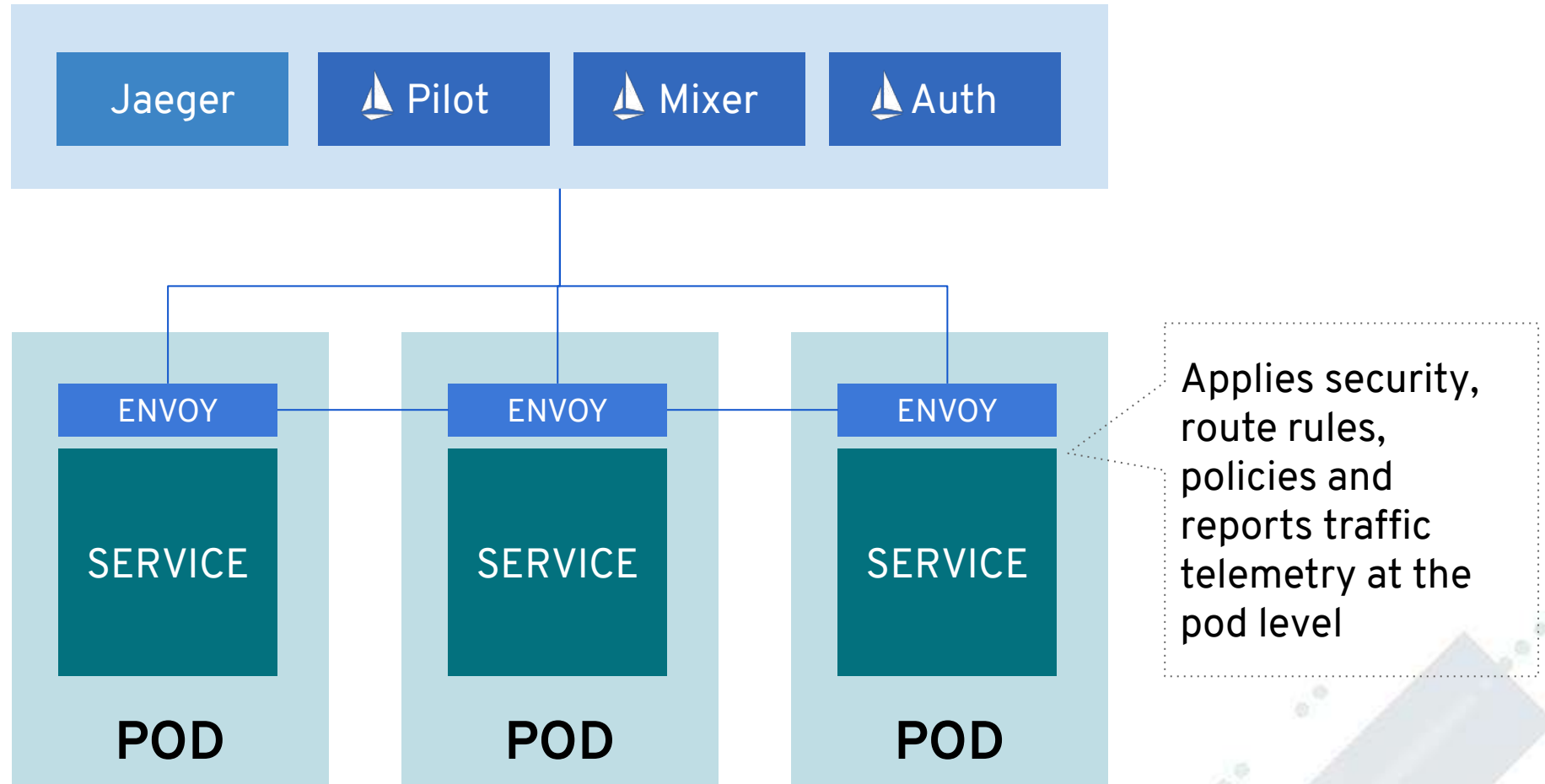
DISTRIBUTED ARCHITECTURE



EVOLUTION OF SERVICES



SERVICE MESH ARCHITECTURE



OpenShift Service Mesh

SERVICE

Service
CONTAINER

Service
CONTAINER

Service
CONTAINER

Service
CONTAINER

Service
CONTAINER

ANY
APPLICATION

SERVICE
OPS

OpenShift Service Mesh
(Istio + Jaeger + Kiali)

INFRA OPS

OpenShift Container Platform
(Enterprise Kubernetes)



RED HAT
OPENSHIFT

INFRA



Laptop



Datacenter



OpenStack



Amazon Web Services



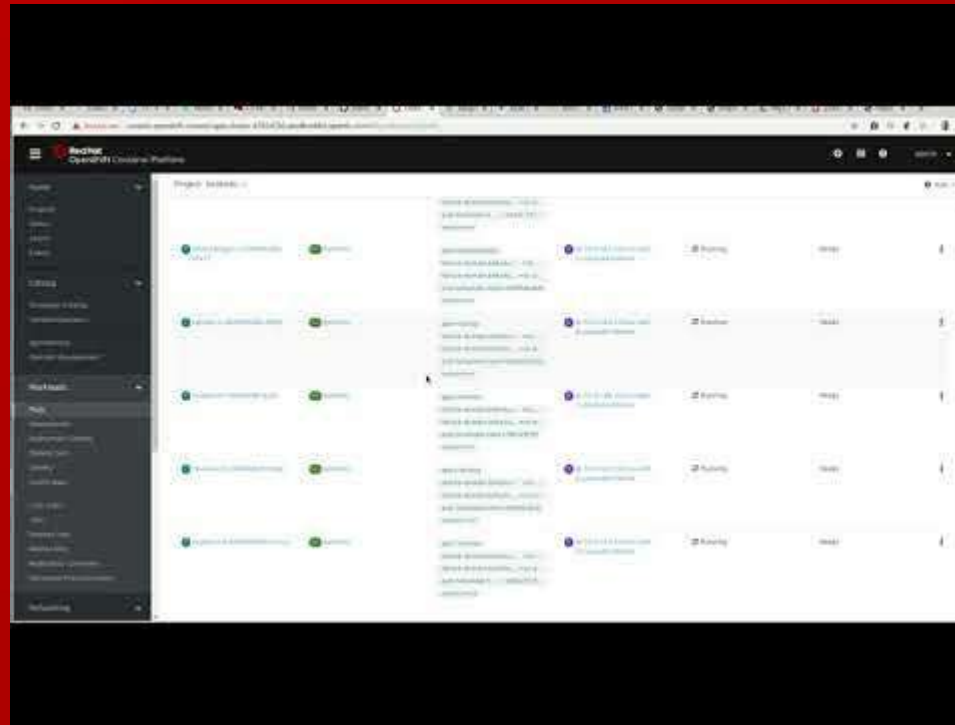
Microsoft Azure



Google Cloud

ANY
INFRASTRUCTURE

DEMO - Istio Components



A large crowd of people is gathered in a bright, modern art gallery. The walls are covered with numerous framed artworks, including photographs and abstract pieces. People of various ages and ethnicities are seen looking at the art, some standing in small groups and others walking through the space. The atmosphere appears to be one of a busy, open-house event.

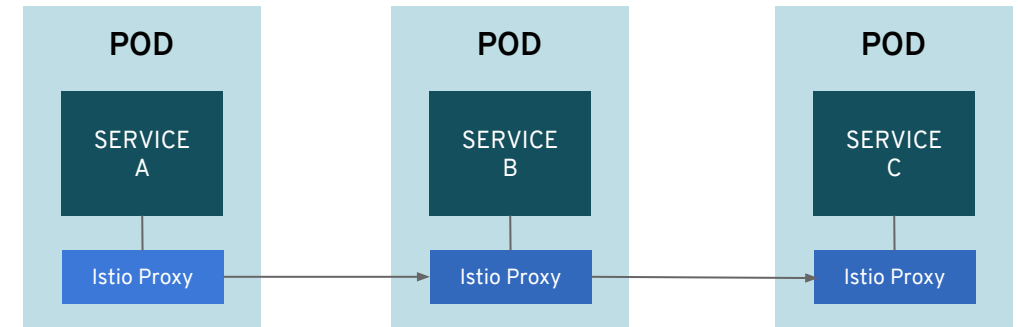
OBSERVABILITY

See what's happening, with rich automatic tracing, monitoring, and logging of all your services.

Observability

By having a proper description of every component (Kubernetes) and of every communication (Istio), any Administrator can jump in a project and immediately discover the application architecture.

By having all logs, traces and performance metrics gathered from all software components, the Administrator can discover the inner working of a running application.

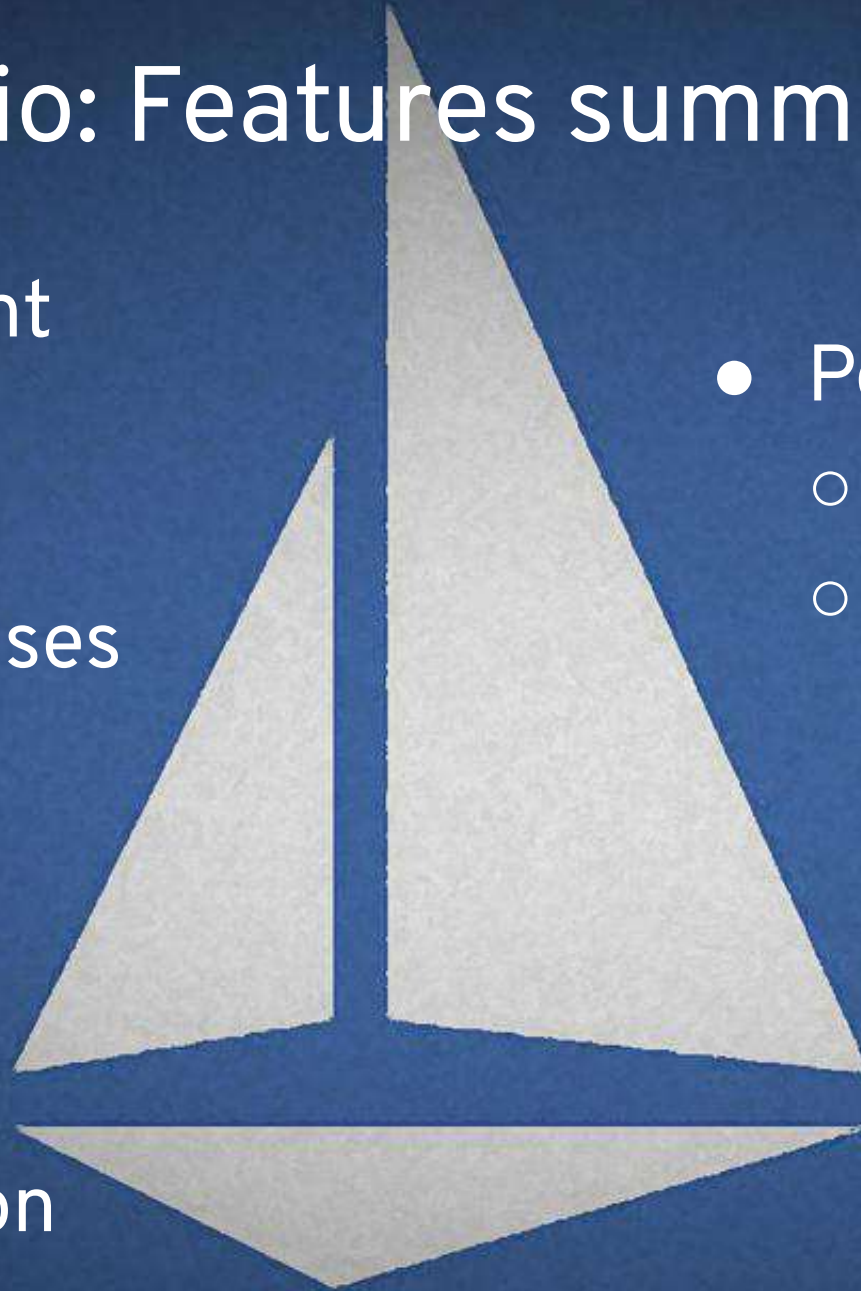


Istio: Features summary

- Traffic Management
 - Smart Routing
 - Blue/Green
 - Advanced Releases

- Security
 - Traffic Encryption

- Policy Enforcement
 - Throttling
 - ACLs



DEMO - Istio Observability

