

Simple, Scalable, Secure

Networked Microservices in Kubernetes



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CLOUD NETWORKS, SECURED

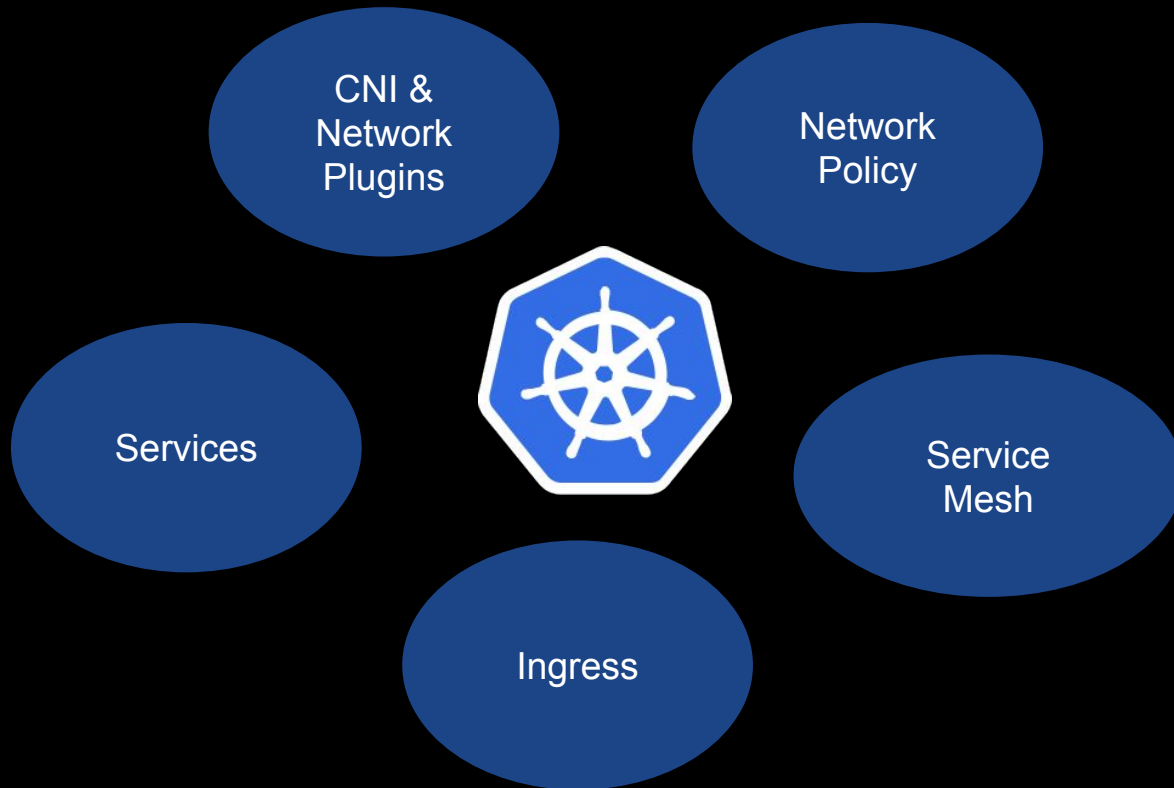
We're Hiring!



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Kubernetes Networking Concepts



Network

=>

Interconnect workloads

+

Network Policy

=>

Isolate workloads

Calico: Scalable, Secure, Cloud-native Networking and Policy

Dynamic security policy + simple networking

Intent-based policy spans

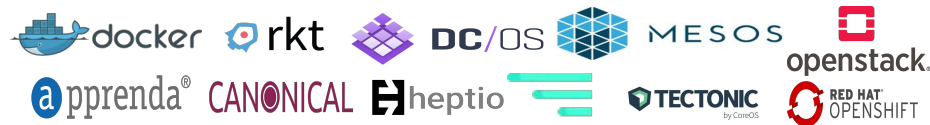
- ▶ Public, private & hybrid cloud
- ▶ Heterogeneous workloads and orchestration environments

Simple, highly scalable, flat IP networking model

Policy enforced on any underlying fabric including overlay-based virtual networks

Open source

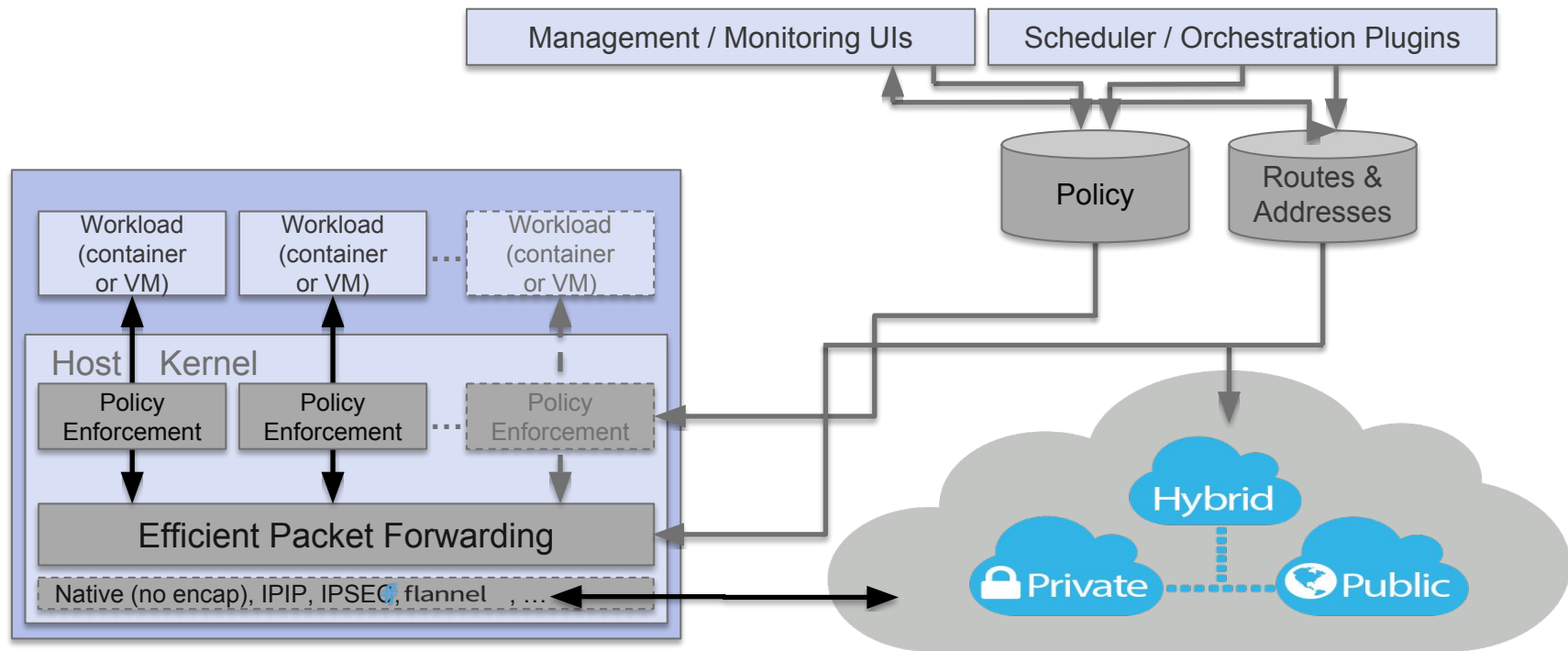
Apache license



kubernetes



Calico Networking and Network Policy: Functional Architecture



Demo:
Deploying Kubernetes with Calico



Simple

Deploy: *kubectl apply -f calico.yaml*

Troubleshoot: *ping, traceroute, ip route show, iptables -L*

Scalable

Widespread deployment, scales to very large clusters

Seamless

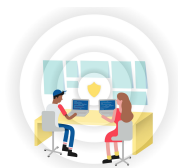
Integration across the Kubernetes ecosystem

Secure

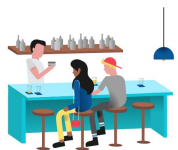
Dynamic, Distributed Network Policy Enforcement



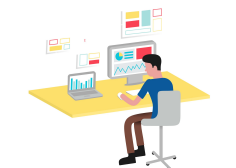
Traffic Management, Resilience and Load Balancing



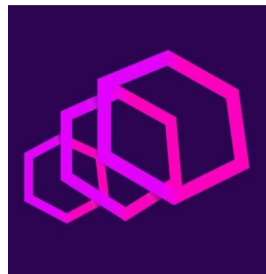
Security, encryption and SPIFFE



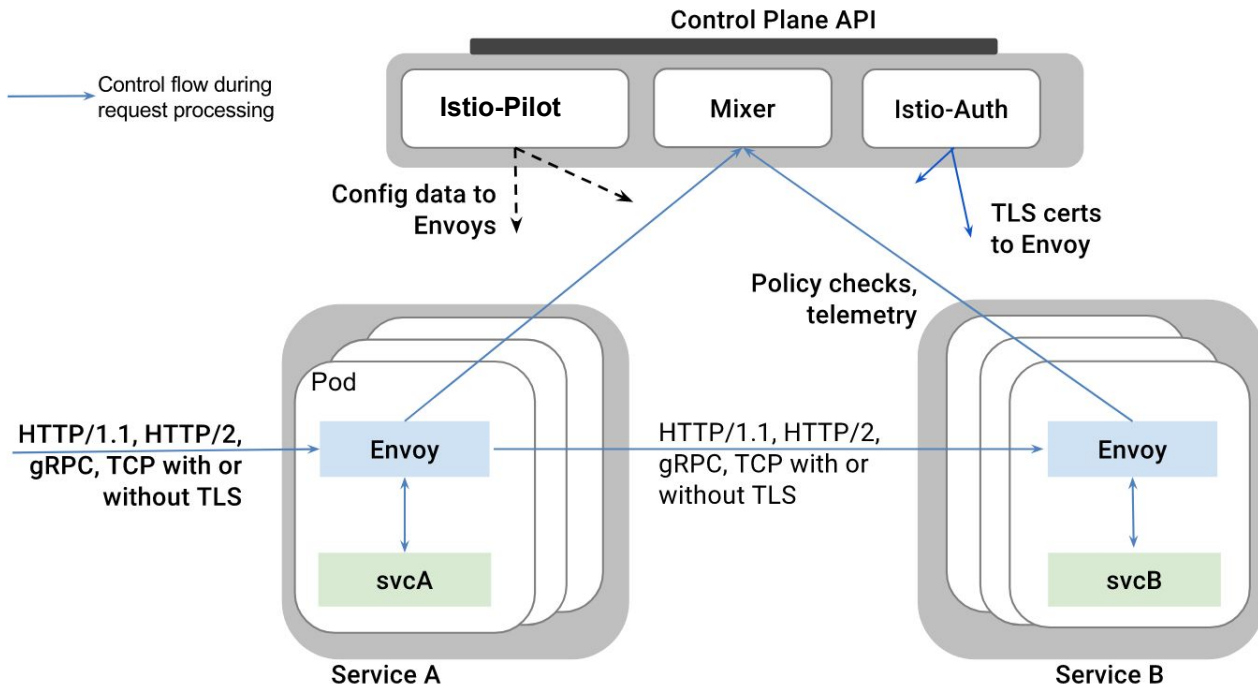
Fleet-wide Policy enforcement



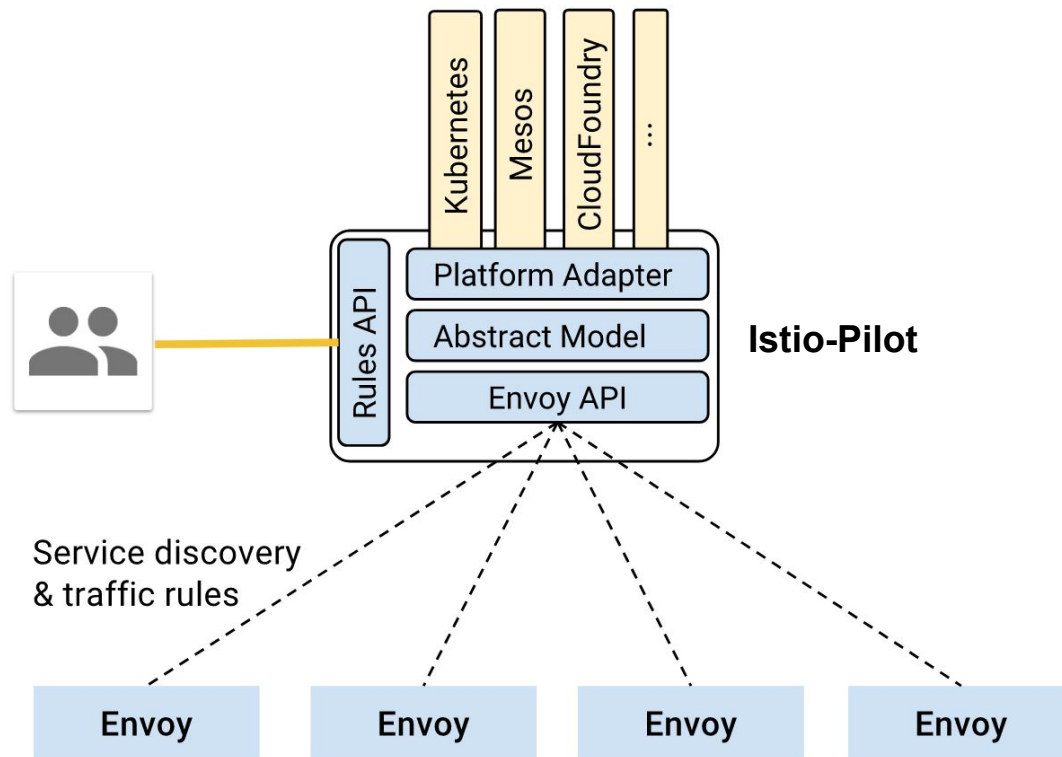
Telemetry and Reporting

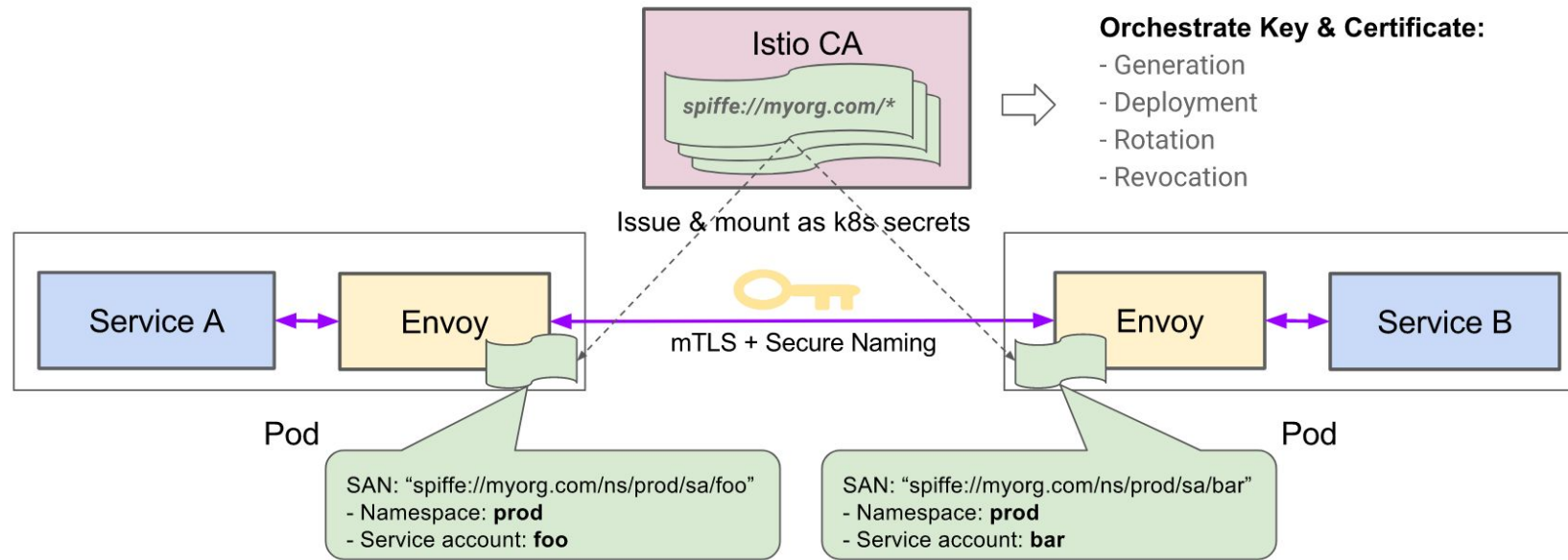


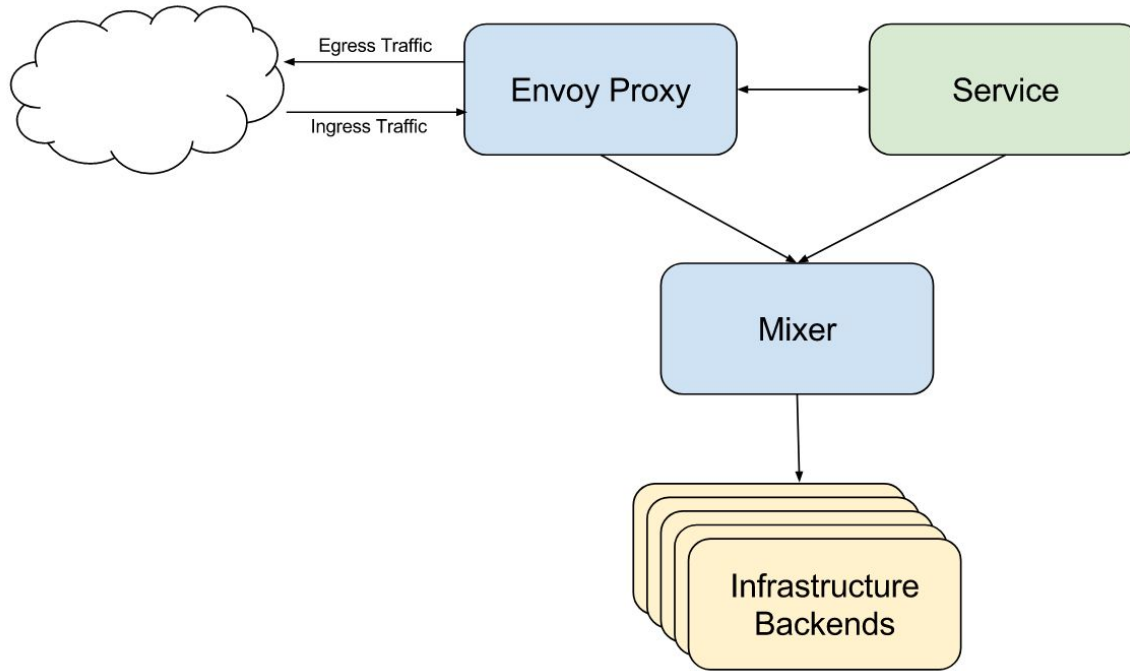
Istio Architecture



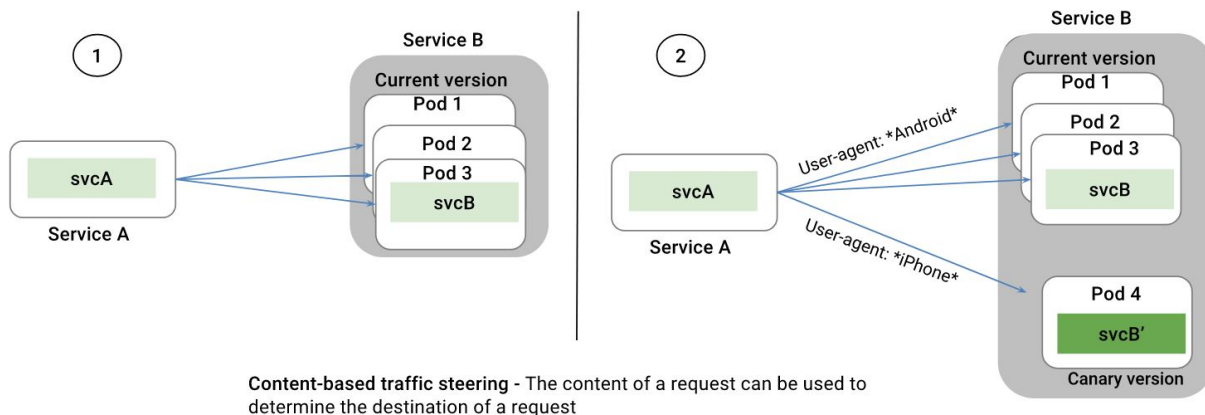
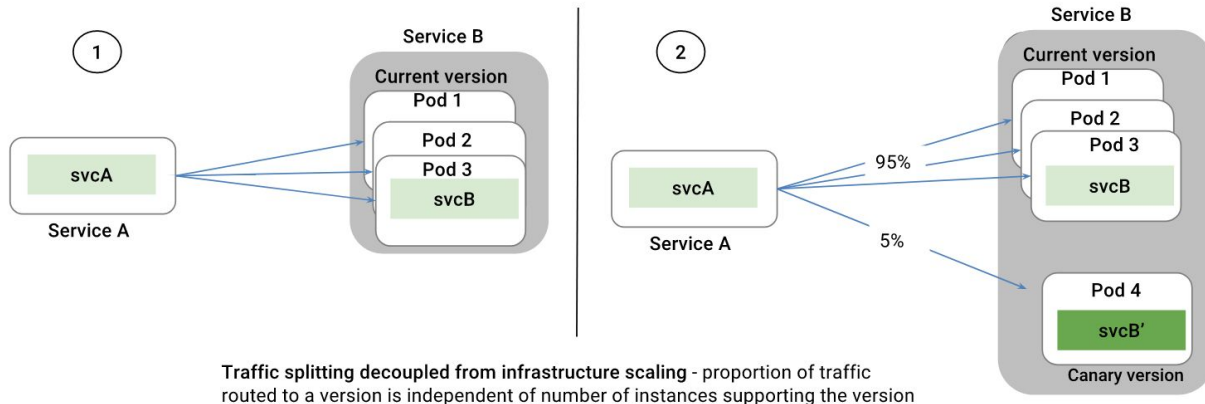
Demo: **Deploying Istio and Envoy**







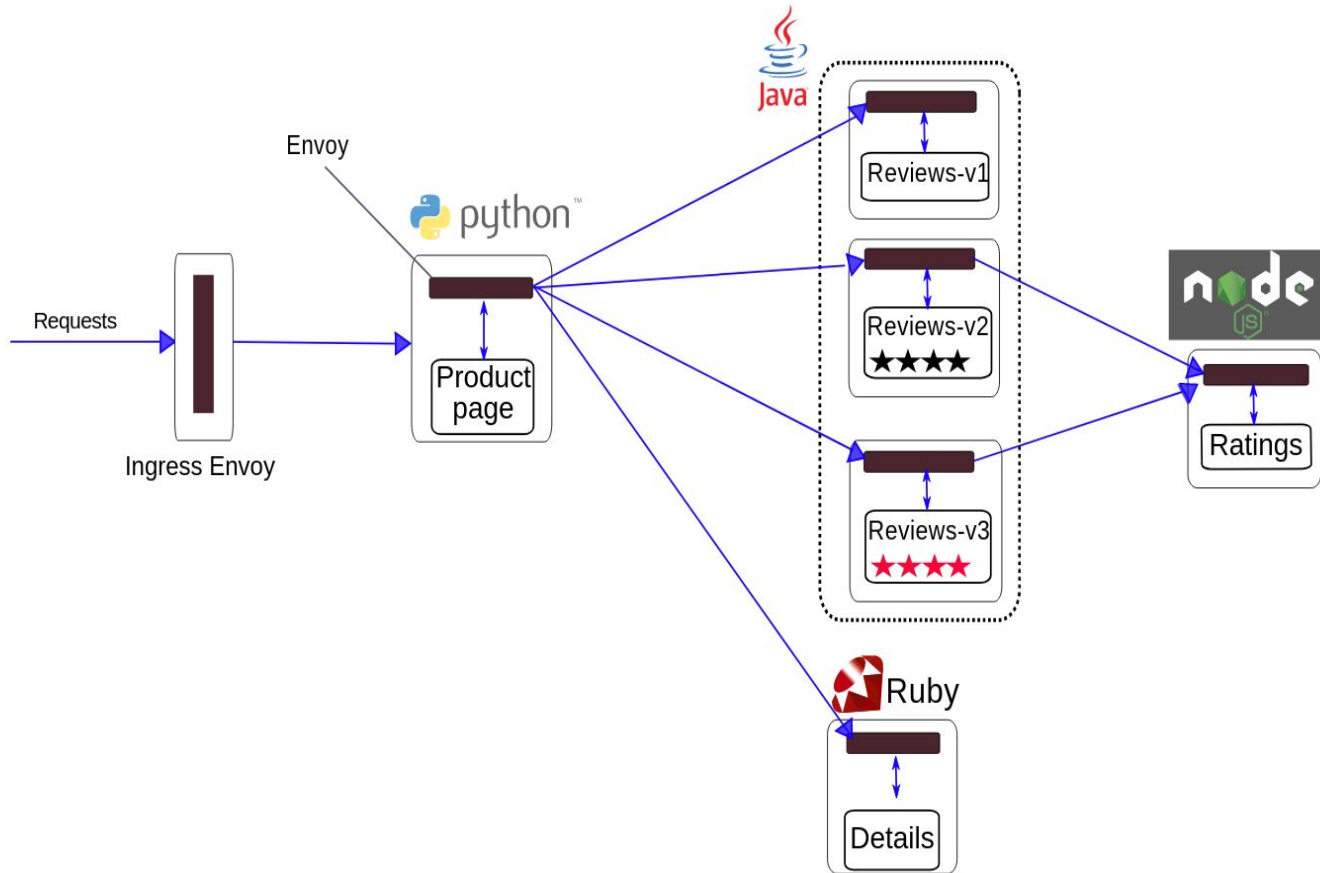
Traffic Management



Demo:

**Deploying a Microservice application
with
Istio, Envoy and Calico**

Istio: Microservices Example - Bookinfo application





KEEP
CALM
and
kubectl
ON



KEEP
CALM
and
calicoctl
ON



**KEEP
CALM
and
istioctl
ON**



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