



THE DEVELOPER'S
CONFERENCE

Como traduzir a arquitetura de Microservices para os componentes do Kubernetes

(TRILHA MICROSERVICES)

André Pontes Sampaio
Professor MBA FIAP e Auditor Fiscal SEFAZ-SP

FIAP

Nossa jornada



➤ Relacionando componentes K8S com microsserviços



1º Passo



2º Passo



3º Passo



COMPONENTES DO KUBERNETES

The image features a blue background with a subtle pattern of white ship wheels. In the center, the word 'kubernetes' is written in a bold, white, sans-serif font. Below it, the phrase 'Rolling Updates' is written in a white, handwritten-style font. On the right side, there is a large white ship wheel with a blue octagonal center containing a white ship wheel logo. On the left side, there are two smaller white ship wheels, one partially visible at the top and one at the bottom.

kubernetes
Rolling Updates



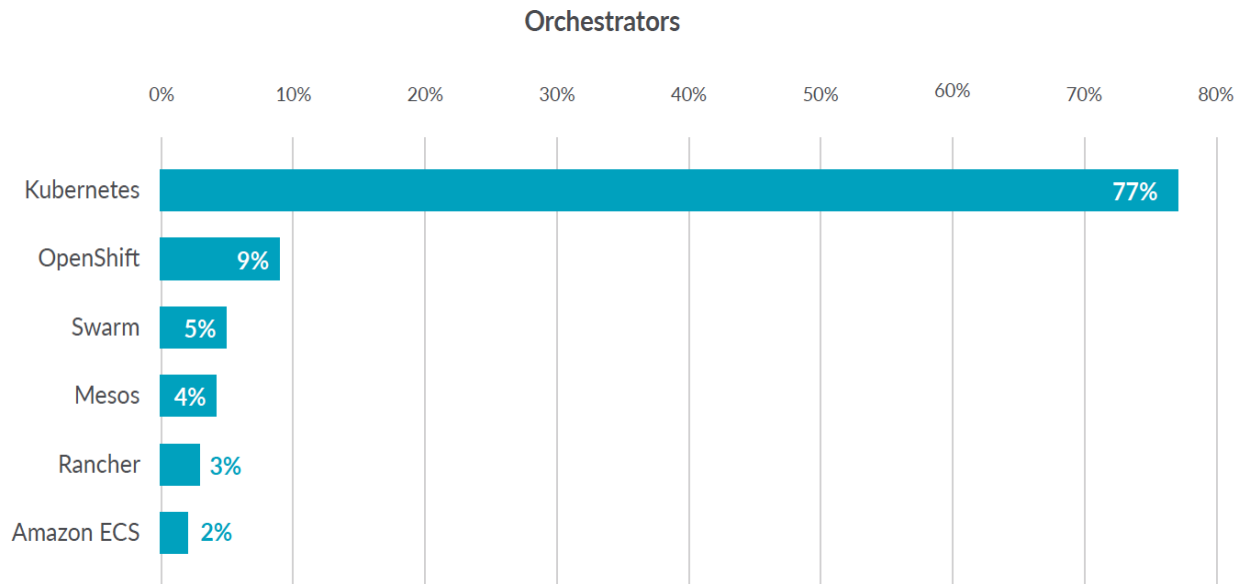
THE
DEVELOPER'S
CONFERENCE



FIAP

Kubernetes: Marketshare em 2019

➤ % de Utilização dos Orquestradores



Fonte: Sysdig 2019 Container Usage Report: New Kubernetes and security insights **Disponível em:** <https://sysdig.com/blog/sysdig-2019-container-usage-report/>



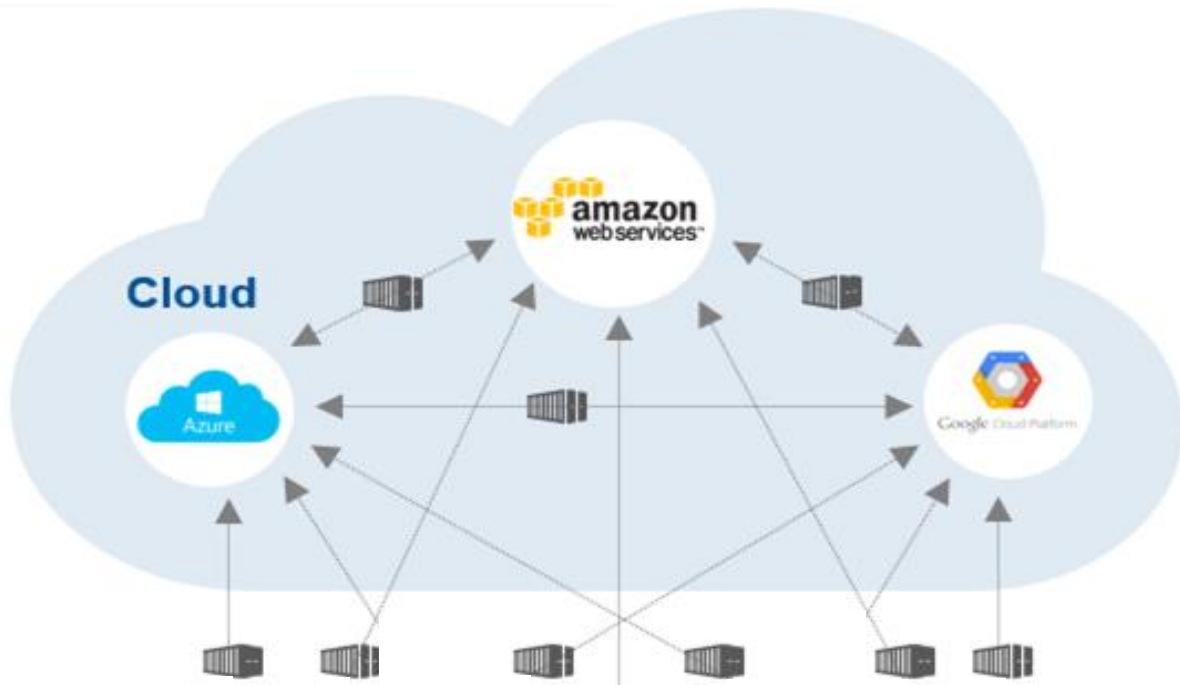
THE
DEVELOPER'S
CONFERENCE



FIAP

Kubernetes: Principal Característica

➤ Mobilidade do workload





THE
DEVELOPER'S
CONFERENCE



FIAP

Kubernetes: Principais Funcionalidades

**escalonamento
automático de
serviços**

**balanceamento
de carga nas
réplicas**

**monitoramento
de integridade
do serviço**

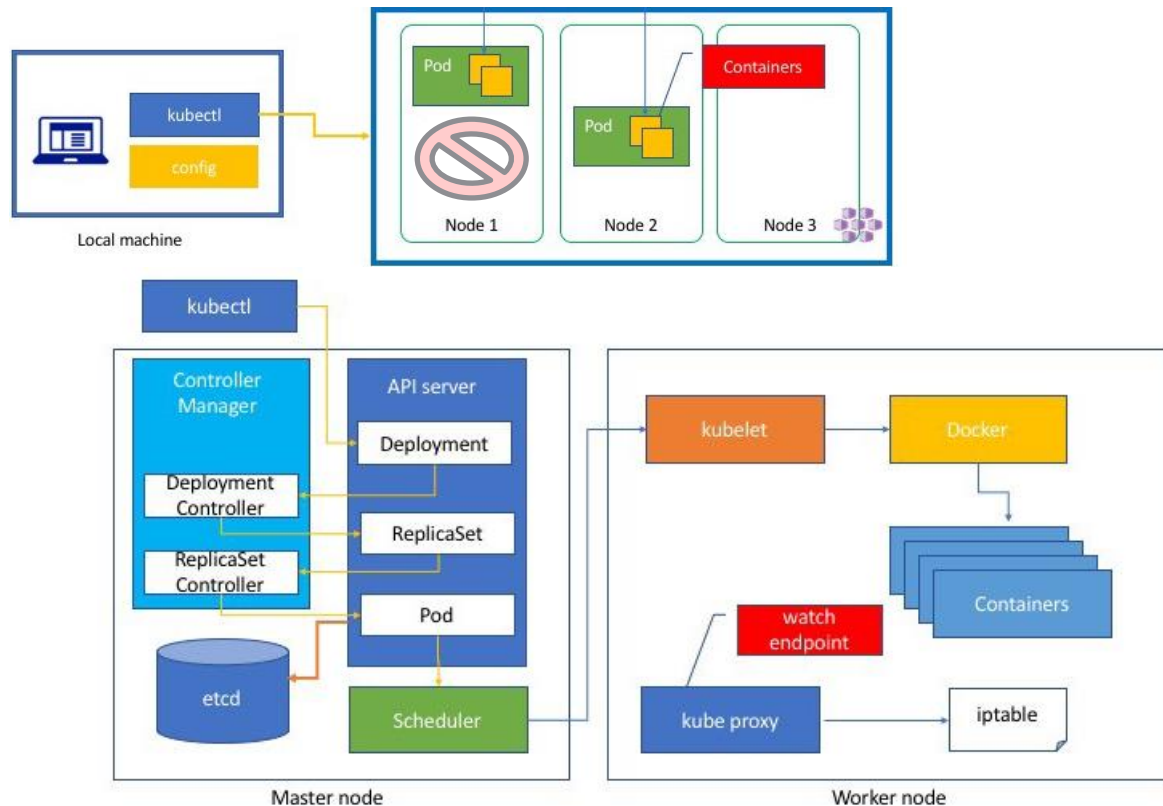


THE
DEVELOPER'S
CONFERENCE



FIAP

Visão geral do cluster Kubernetes



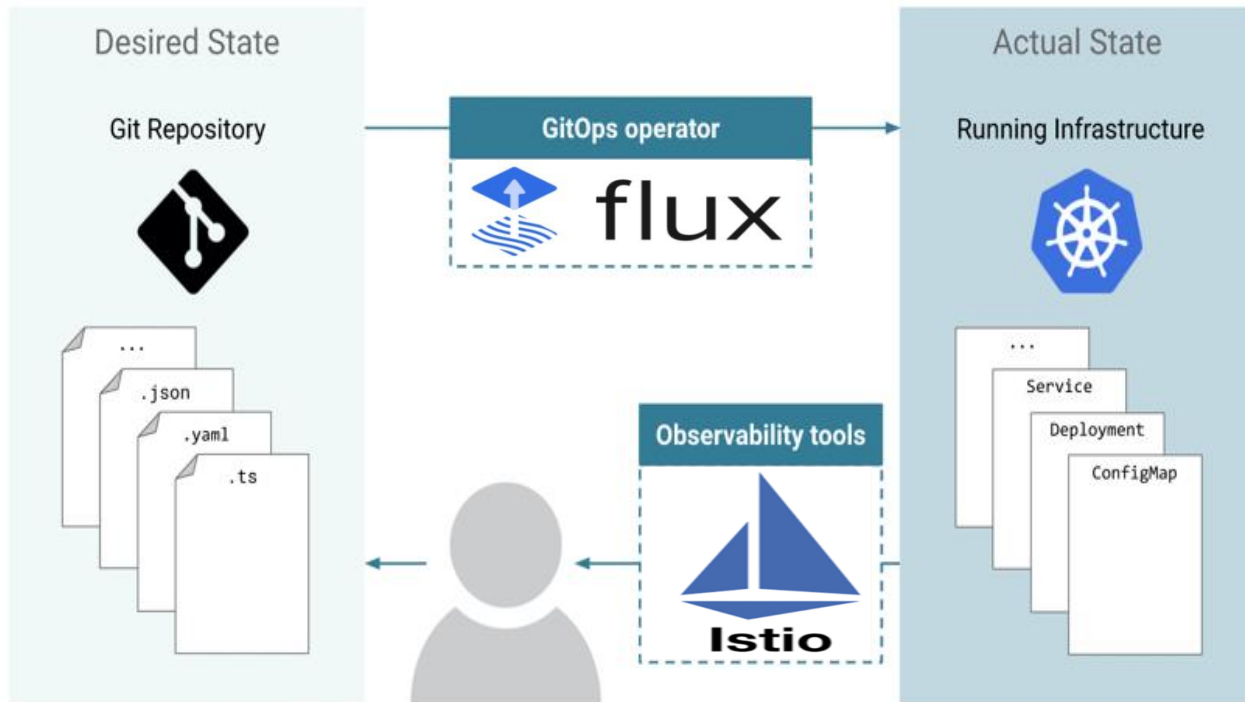


THE
DEVELOPER'S
CONFERENCE



FIAP

GitOps para Continuous Deployment



ARQUITETURA DE MICROSERVIÇO





THE
DEVELOPER'S
CONFERENCE



Microservices

FIAP

Arquitetura **Service Mesh** (multi-conectada)
e **Side Car** (controle das requisições)



SERVICE MESH

Aplicações se
comunicam de forma
independente entre si



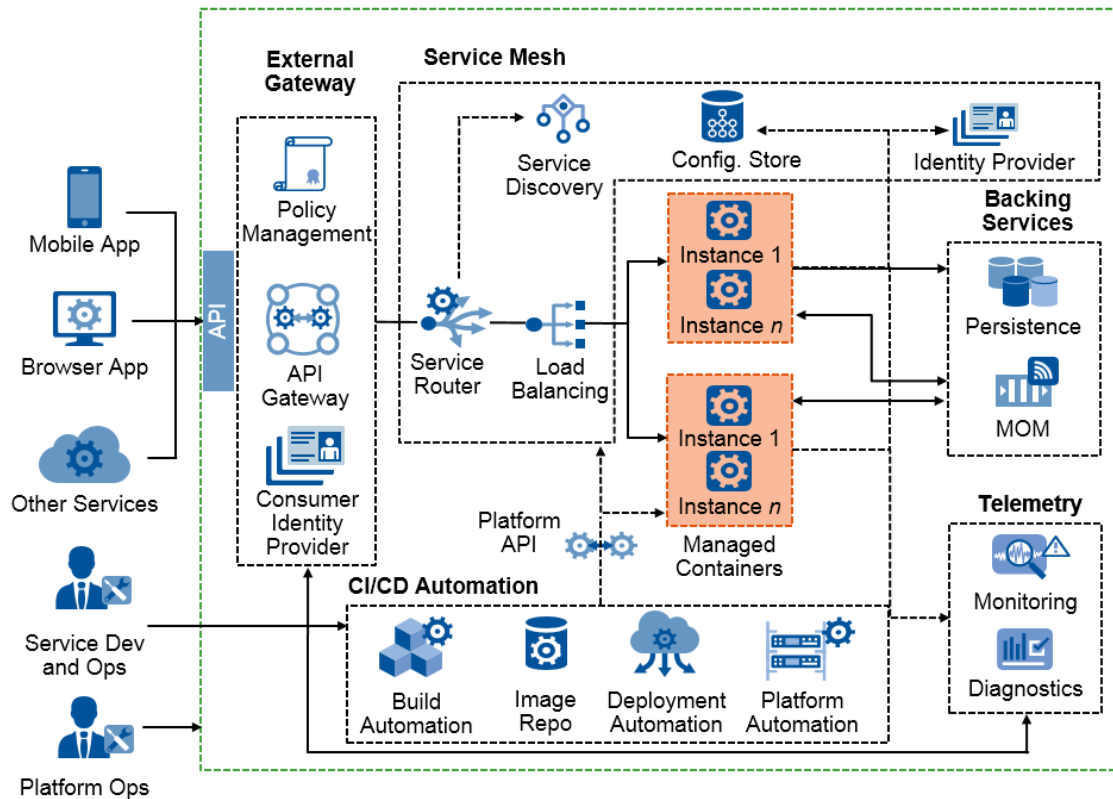
THE
DEVELOPER'S
CONFERENCE



Microservices

FIAP

Arquitetura de Microserviços





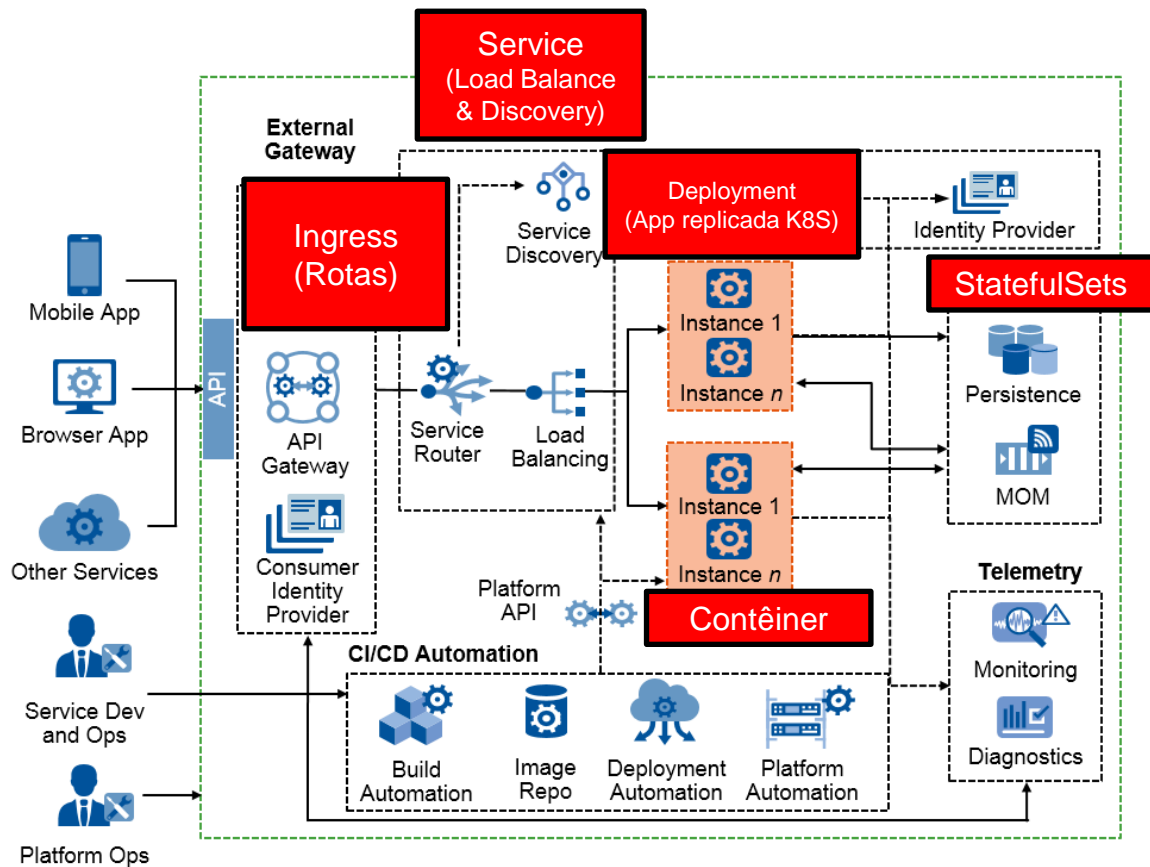
THE
DEVELOPER'S
CONFERENCE



Microservices

FIAP

Kubernetes vs Microservices





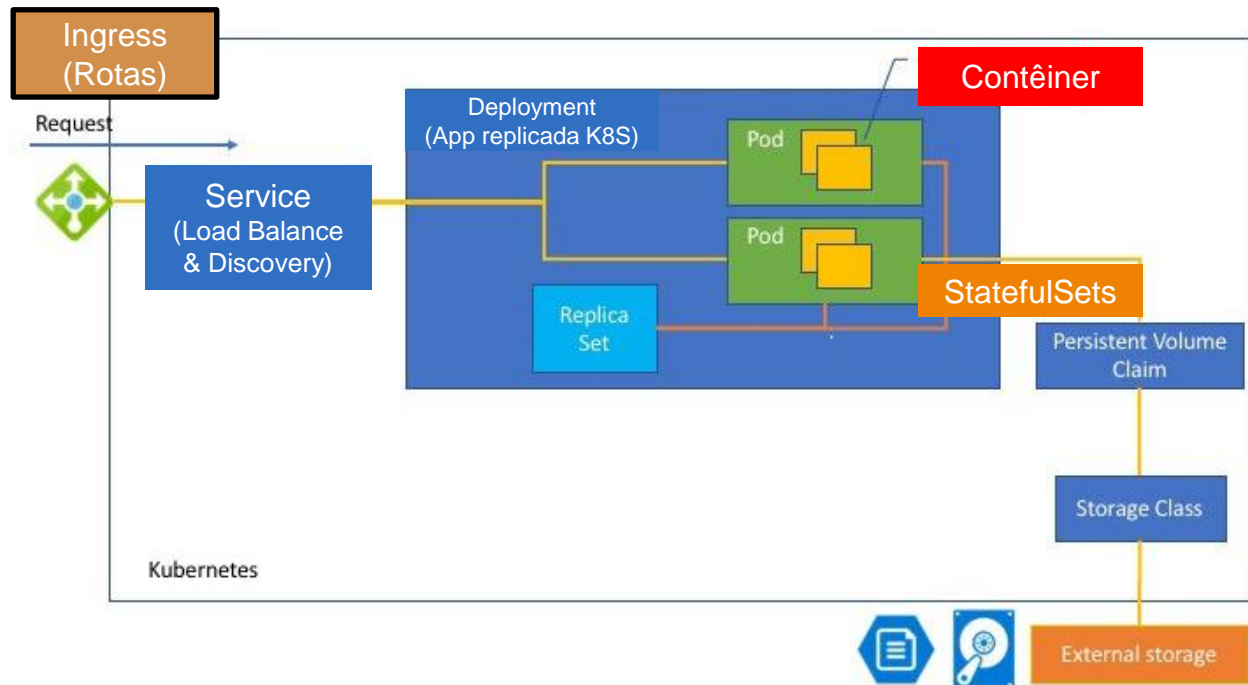
THE
DEVELOPER'S
CONFERENCE



Microservices

FIAP

Kubernetes vs Microservices



DEMONSTRAÇÃO





THE
DEVELOPER'S
CONFERENCE




FIAP

Aplicação de Referência


OFFER OF THE DAY Buy 10 socks, get a pet human for free!

Login



HOME CATALOGUE ▾

0 items in cart



WE LOVE SOCKS!
Fun fact: Socks were invented by woolly
creatures to keep warm. That's why our business

BEST PRICES
We price check our socks with trained monkeys.
That's why our prices

100% SATISFACTION
GUARANTEED

<https://github.com/microservices-demo/microservices-demo>

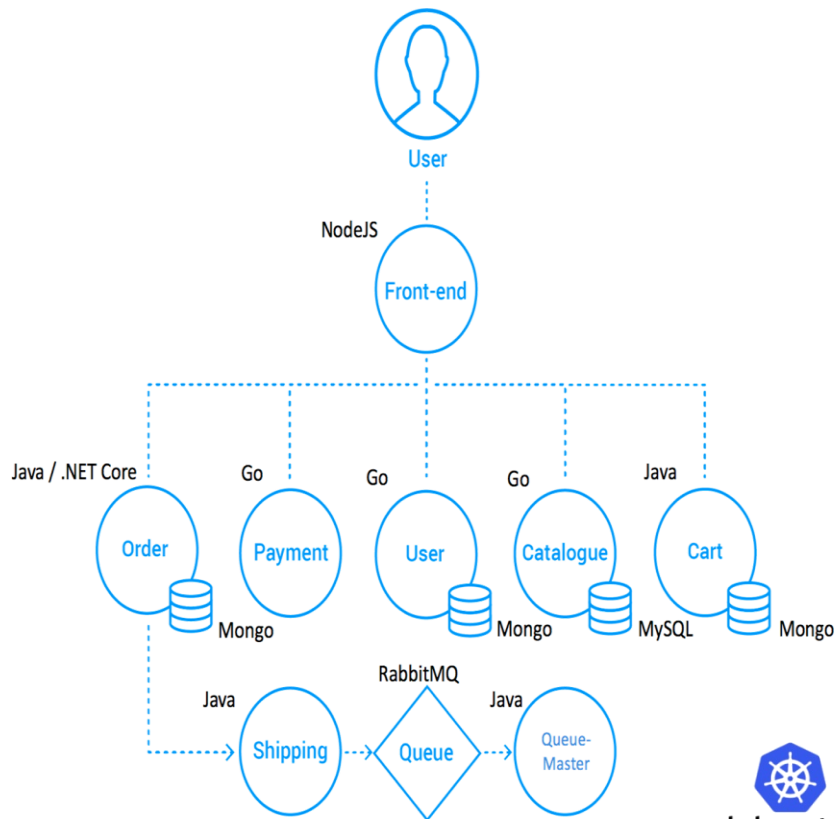


THE
DEVELOPER'S
CONFERENCE



FIAP

Aplicação de Referência



kubernetes



Istio



THE
DEVELOPER'S
CONFERENCE



FIAP

I

•7 MICROSERVIÇOS

II

•PROJETO POLIGLOTA
•JAVA, .NET, GO

III

•BANCO DE DADOS POR SERVIÇO
•MONGO e MYSQL

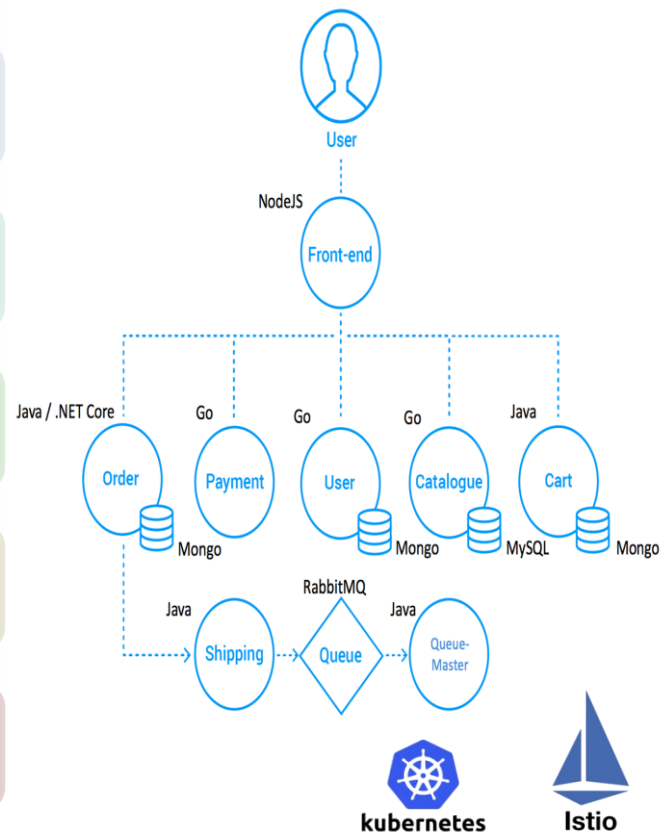
IV

•EVENTOS ASSÍNCRONOS
•RABBITMQ

V

•ISTIO SERVICE MESH NO GKE

Aplicação de Referência



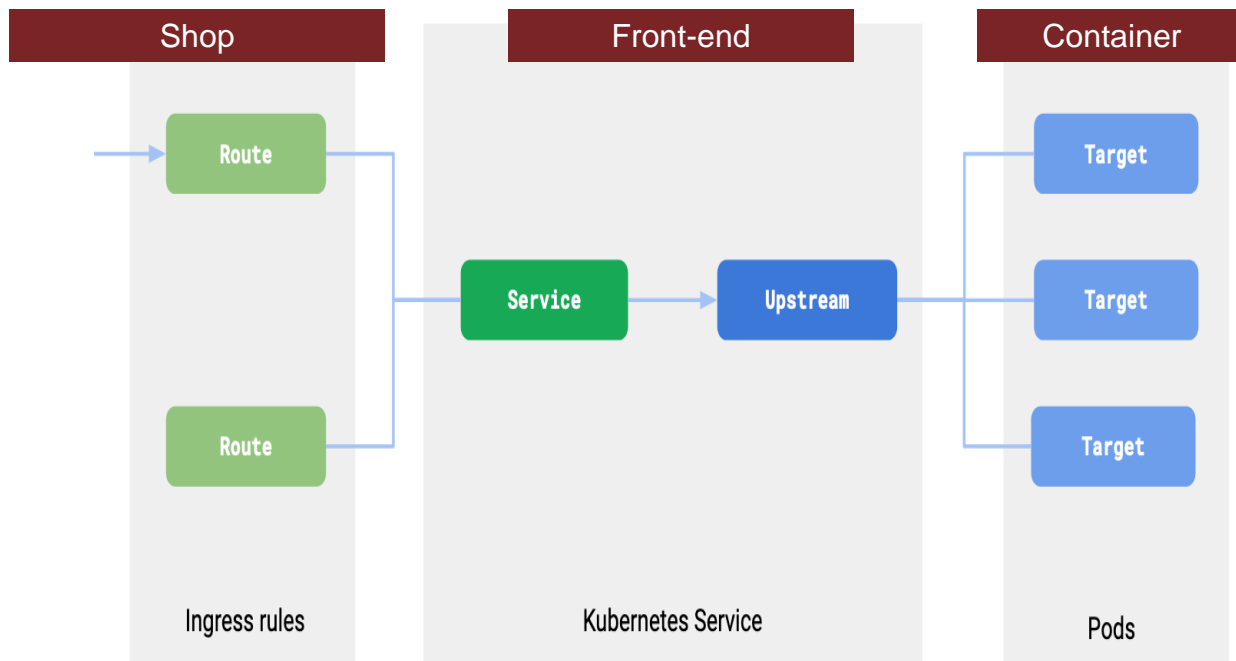


THE
DEVELOPER'S
CONFERENCE



FIAP

Ingress: Roteamento ao Serviço responsável



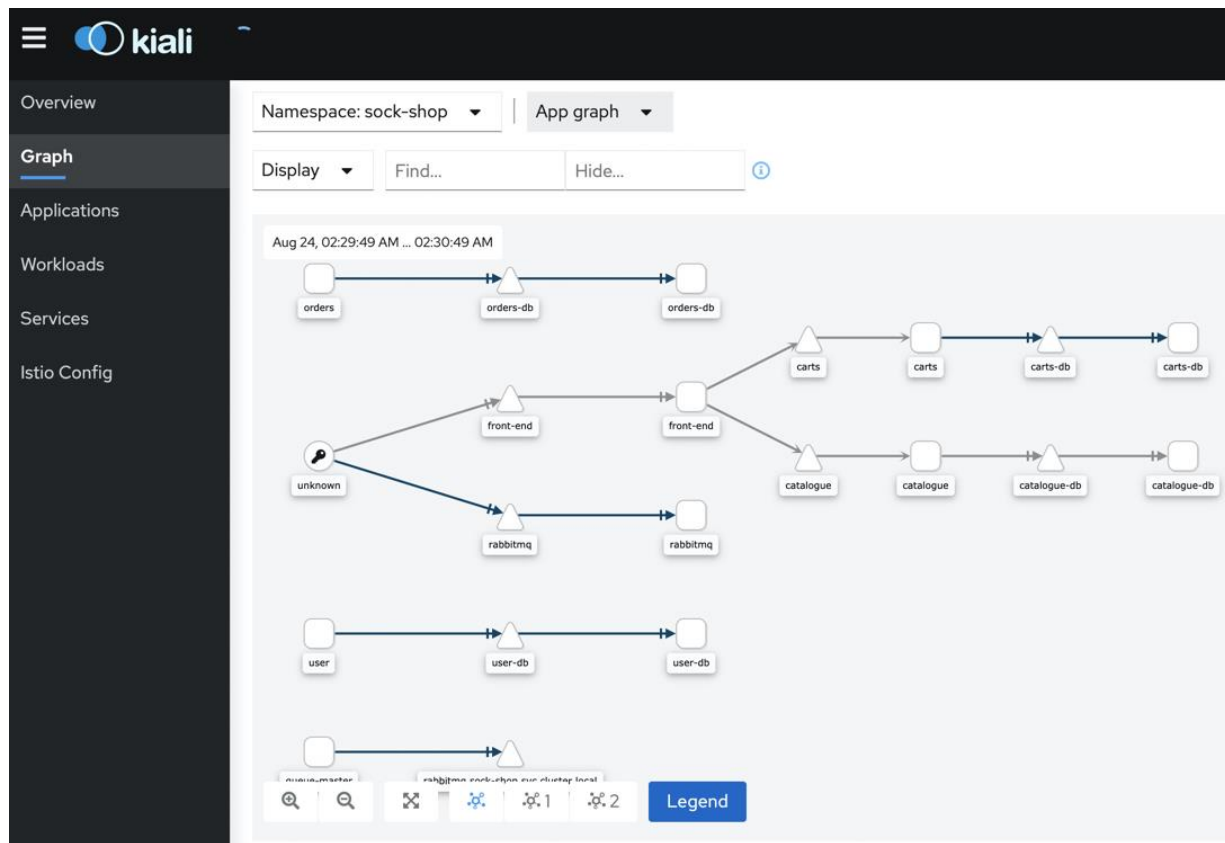


THE
DEVELOPER'S
CONFERENCE



FIAP

KIALI: visualização dinâmica





THE
DEVELOPER'S
CONFERENCE



[https://www.linkedin.com/
in/andre-pontes-sampaio](https://www.linkedin.com/in/andre-pontes-sampaio)

FIAP

OBRIGADO!

GRADUAÇÃO GRADUAÇÃO ON MBAs MBAs ON SHIFT CORPORATE

ON-LINE

INSCREVA-SE:

fiap.com.br/shift

SHIFT FIAP

**MICROSERVICES
HANDS-ON**

API GATEWAY, WEBHOOKS & ELASTIC APM

ANDRÉ PONTES SAMPAIO