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Uso de API Gateway em um cluster Kubernetes

(TRILHA API)

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Professor MBA FIAP e Auditor Fiscal SEFAZ-SP

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Nossa jornada

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- Usar API Externa em microsserviços?

APIs EM ALTA DISPONIBILIDADE

1º Passo

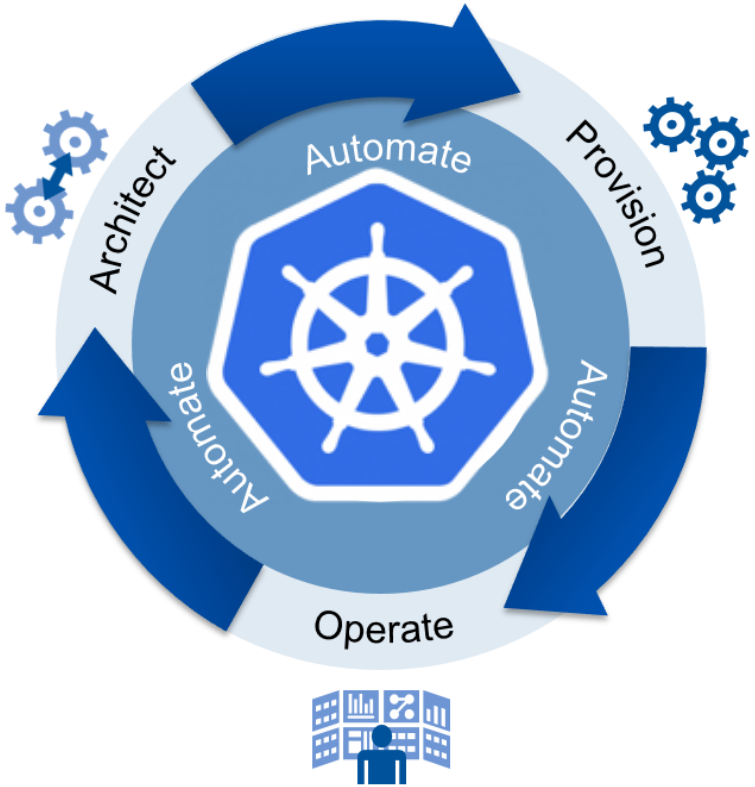
EXECUTANDO NOSSOS SERVIÇOS

2º Passo

EXPONDO SERVIÇOS

3º Passo

APIs EM ALTA DISPONIBILIDADE



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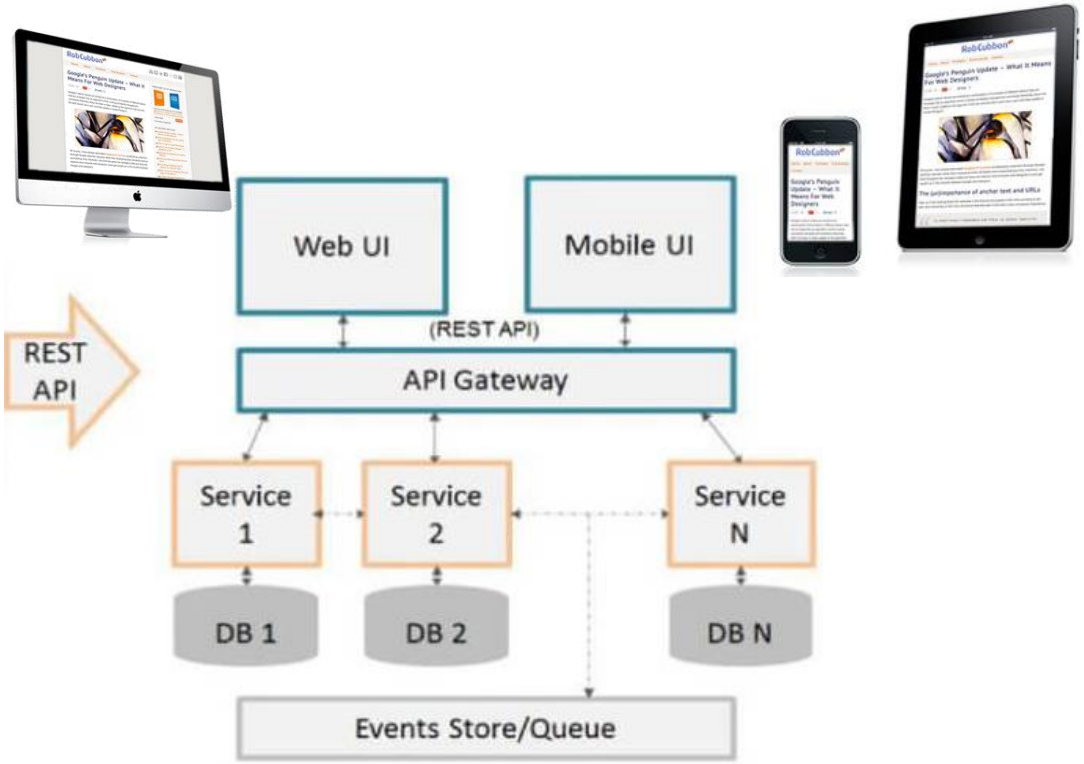
APIs: fornecimento de funcionalidades



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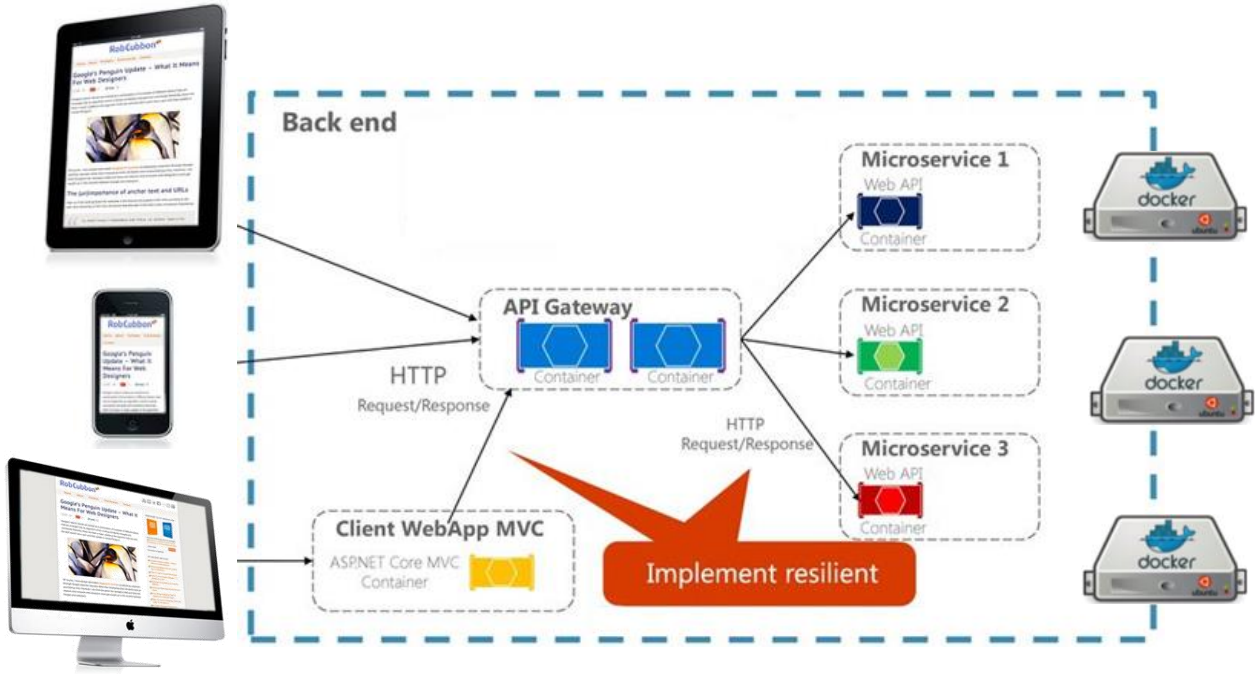
Alta disponibilidade no cluster Kubernetes



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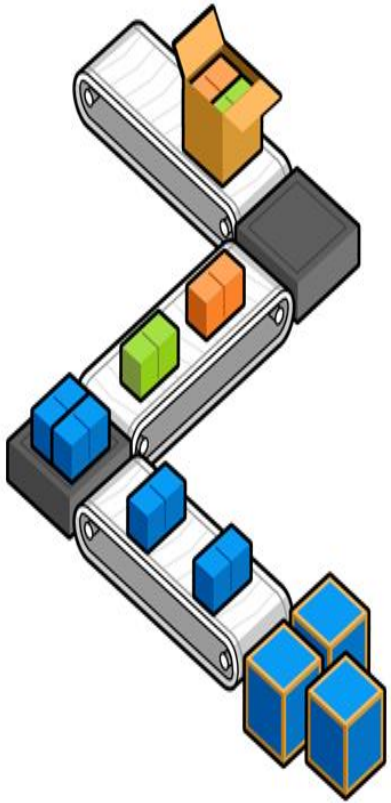
Criar o cluster Kubernetes



Local Machine

- minikube

On-premises

- RedHat Openshift (60% mkt)

Cloud

- **Google GKE**
- Amazon EKS / Azure (AKS)

https://kubernetes.io/docs/setup/pick-right-solution/

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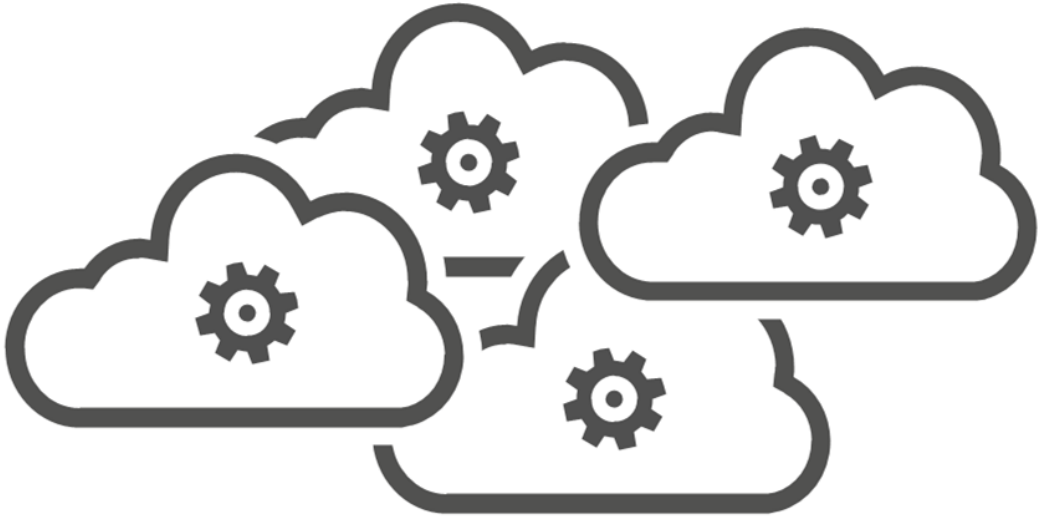

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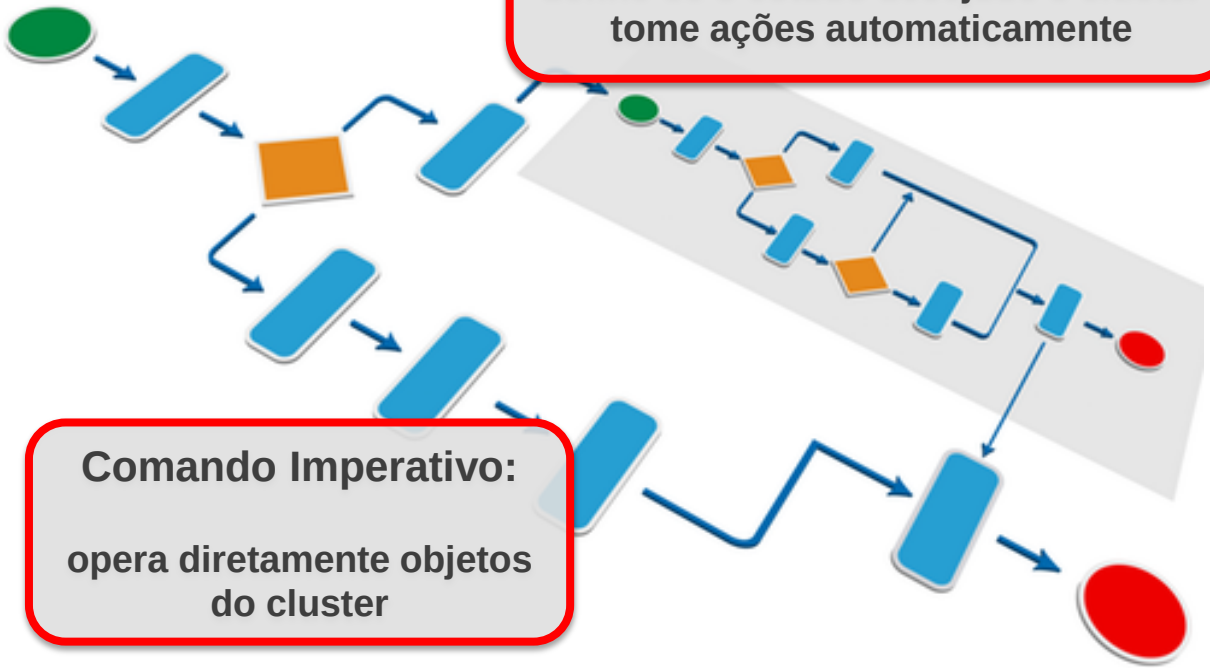
Configuração Declarativa:

define-se o estado desejado e cluster tome ações automaticamente



Comando Imperativo:

opera diretamente objetos do cluster

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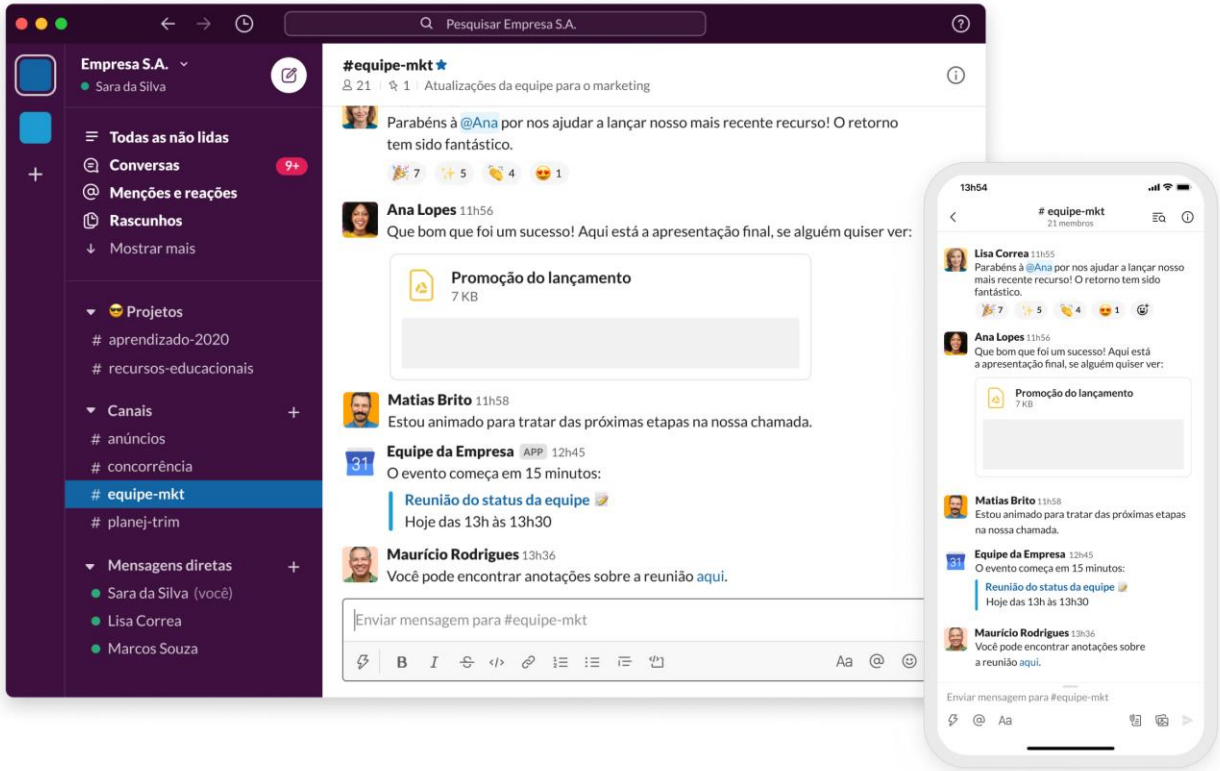

https://github.com/tonanuvem/demo-tdc

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Microservices

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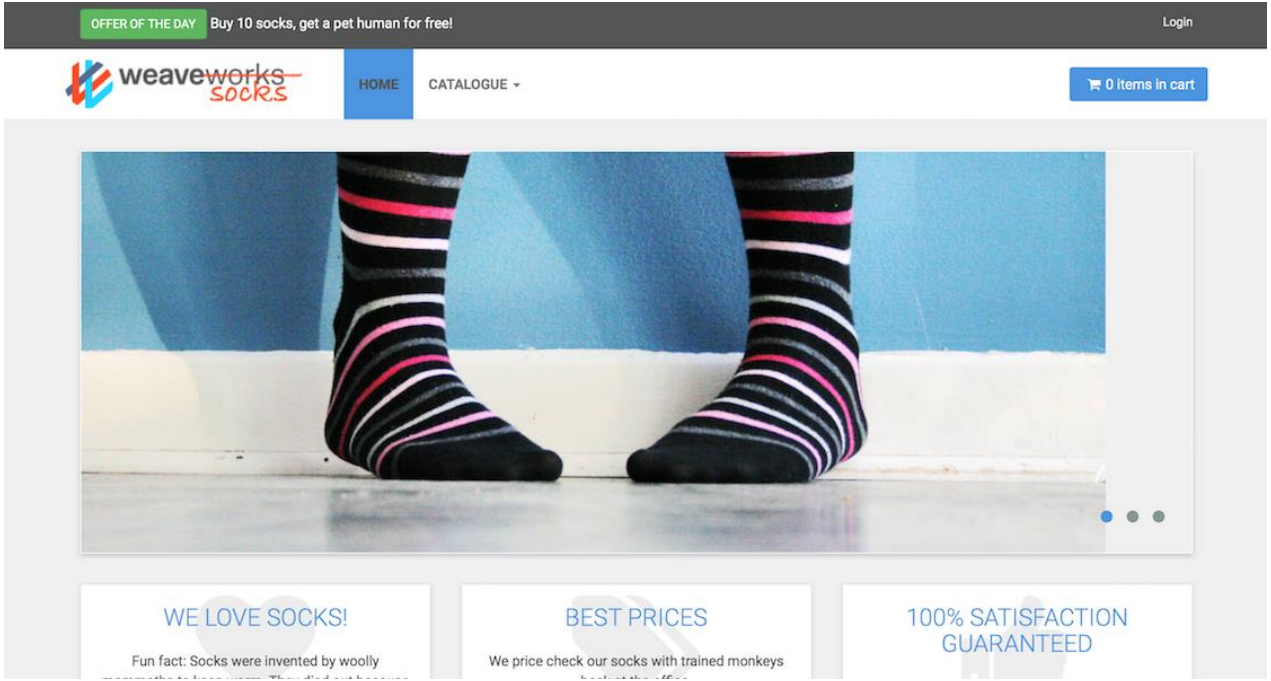

https://github.com/microservices-demo/microservices-demo

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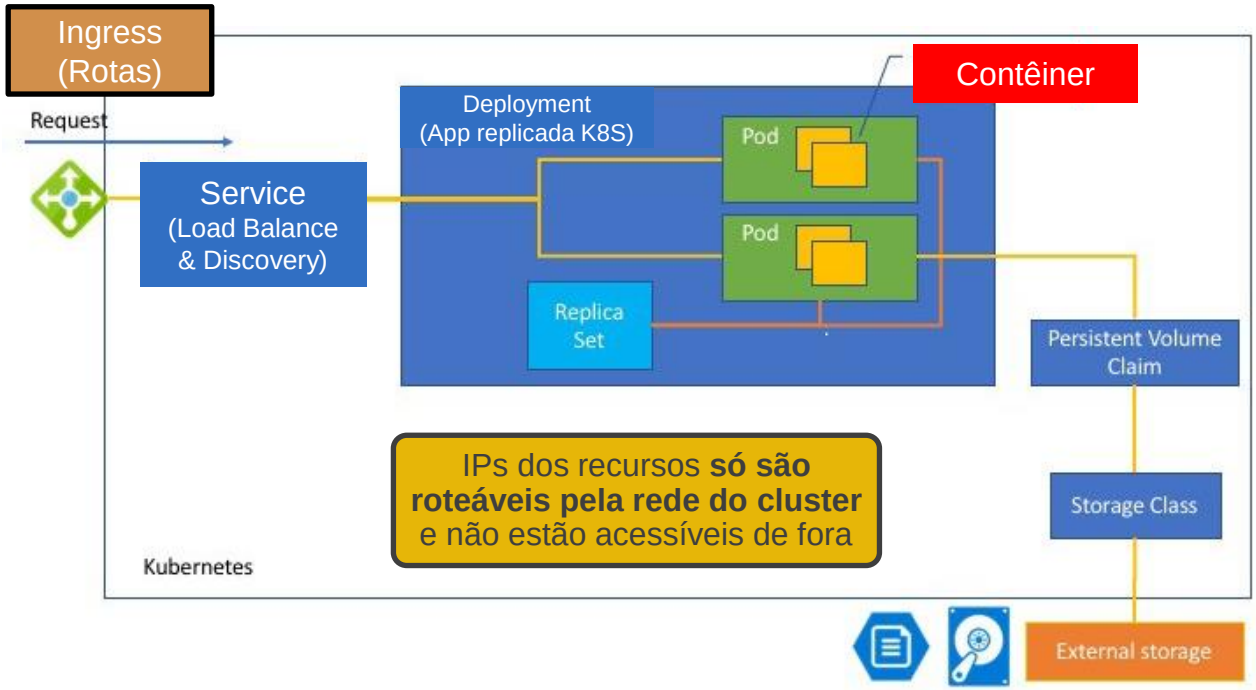

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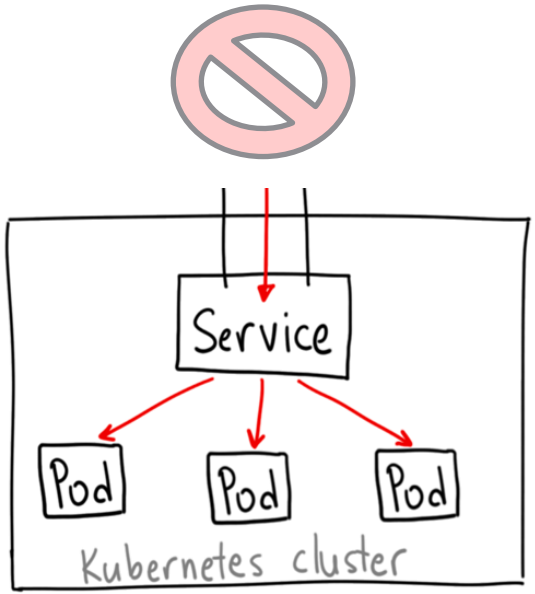
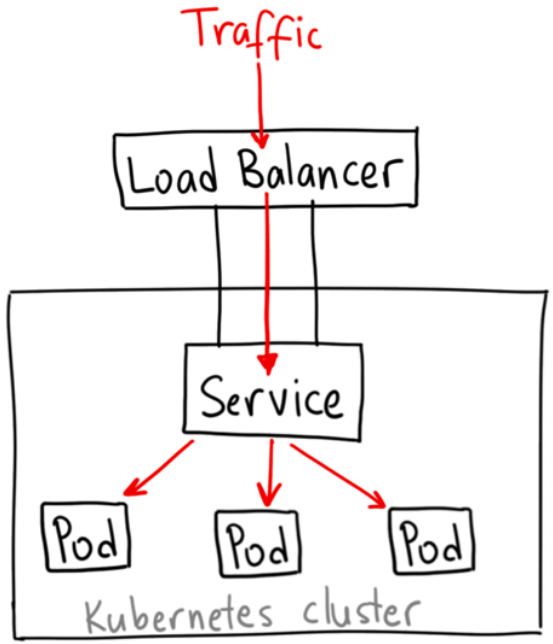
ClusterIP: serviço interno



LoadBalancer: nuvens públicas



EXPONDO SERVIÇOS

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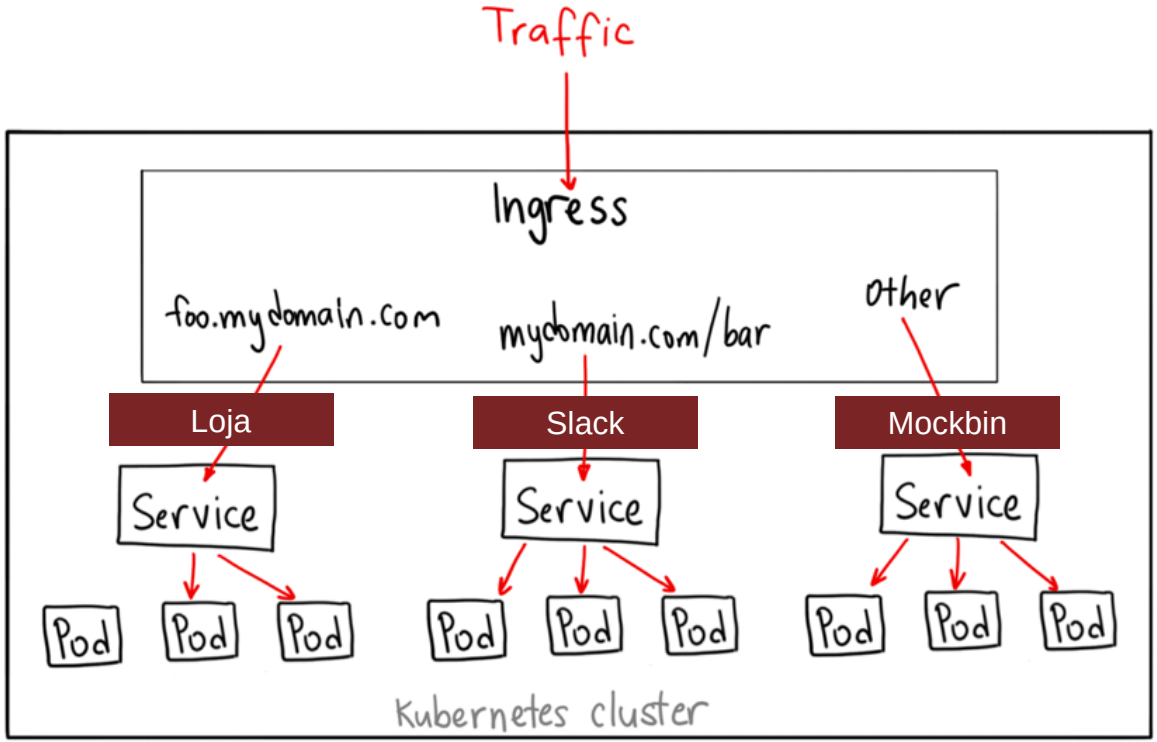
Ingress: Roteamento ao Serviço responsável



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External Gateway

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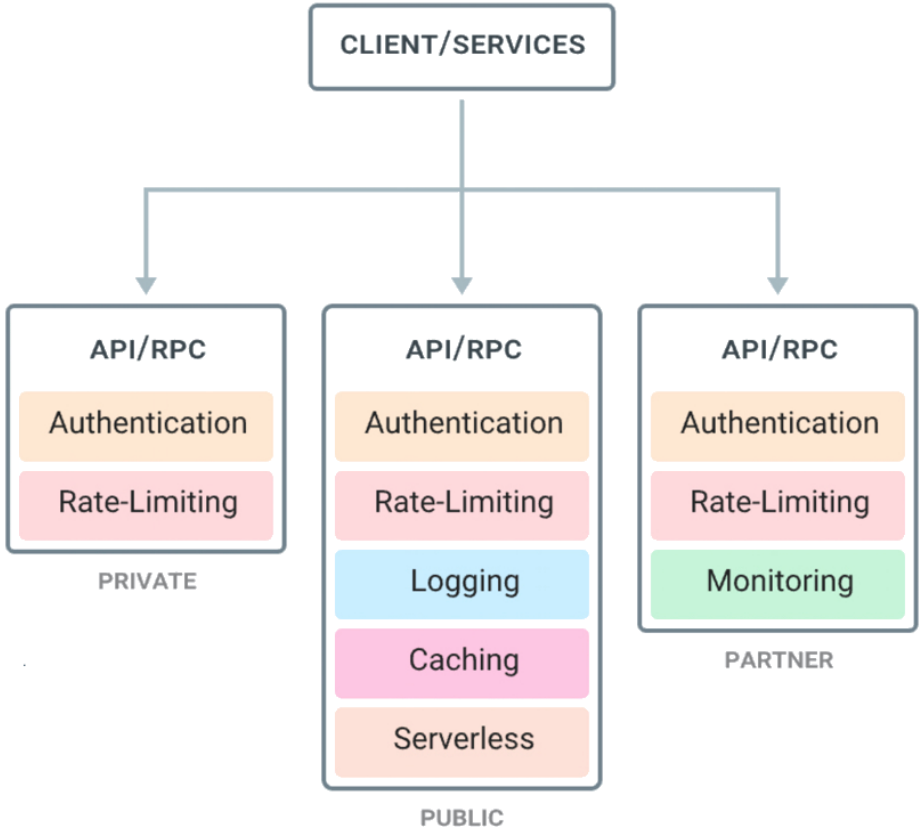
API Gateway vai além de encaminhar rotas



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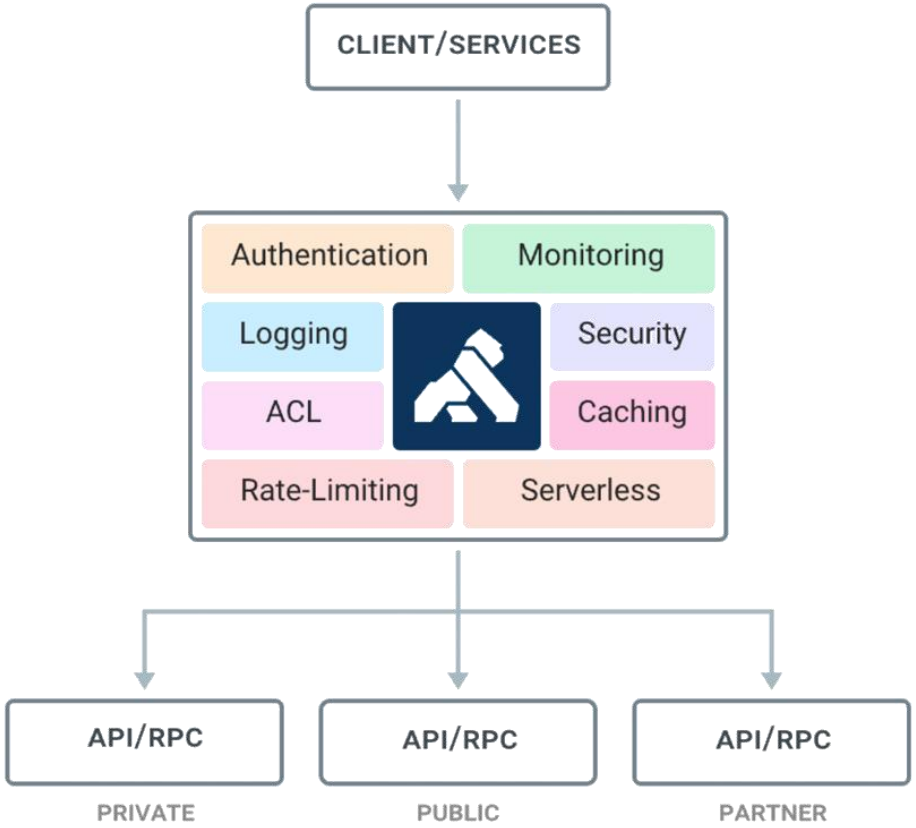
API Gateway com funcionalidades integradas



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HELM: gerenciador de pacotes no Cluster

Pacotes disponíveis no repositório são chamados de Charts

Cada instalação ou upgrade cria uma nova *Release* da implantação

HELM

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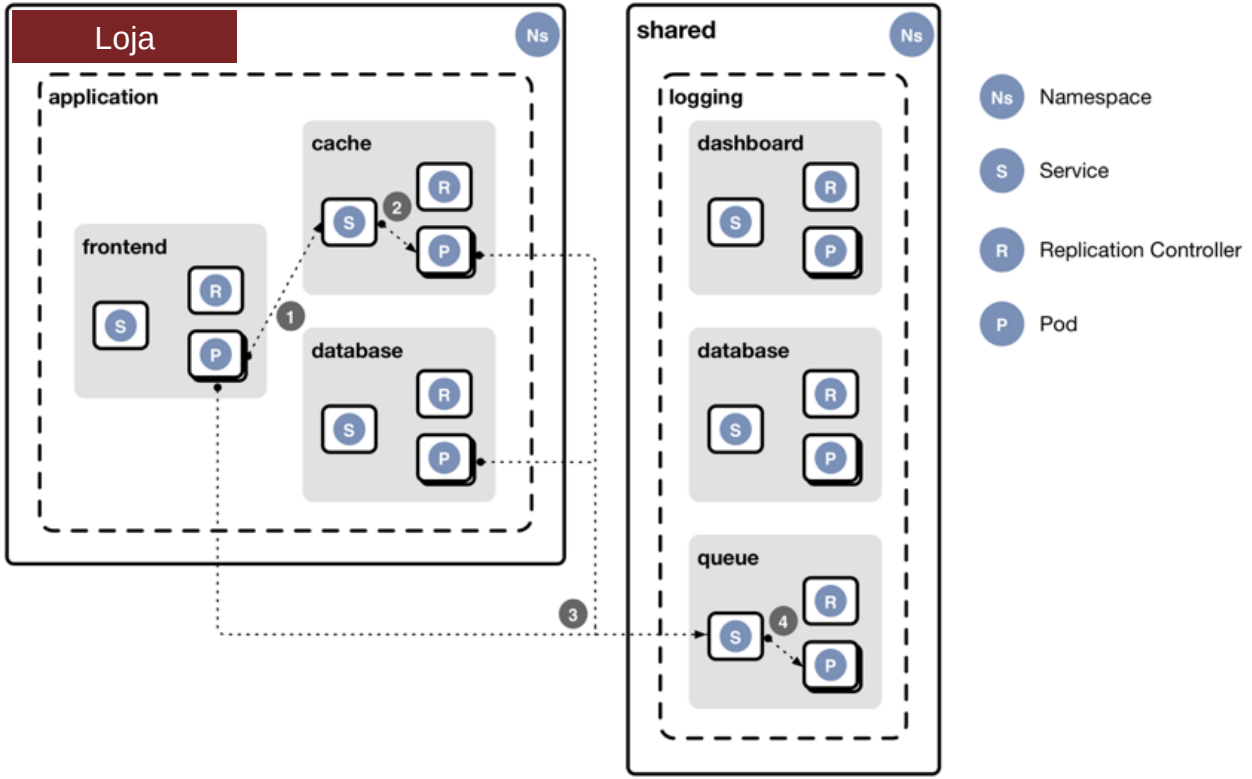
Namespaces: organização do cluster



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