

# Apache APISIX Ingress Controller

基于Apache APISIX 构建的 Kubernetes Ingress

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# 关于我



- 金卫
- Github主页 <https://github.com/gxthrj>
- Apache APISIX PMC
- Apache apisix-ingress-controller Founder
- Apache SkyWalking committer

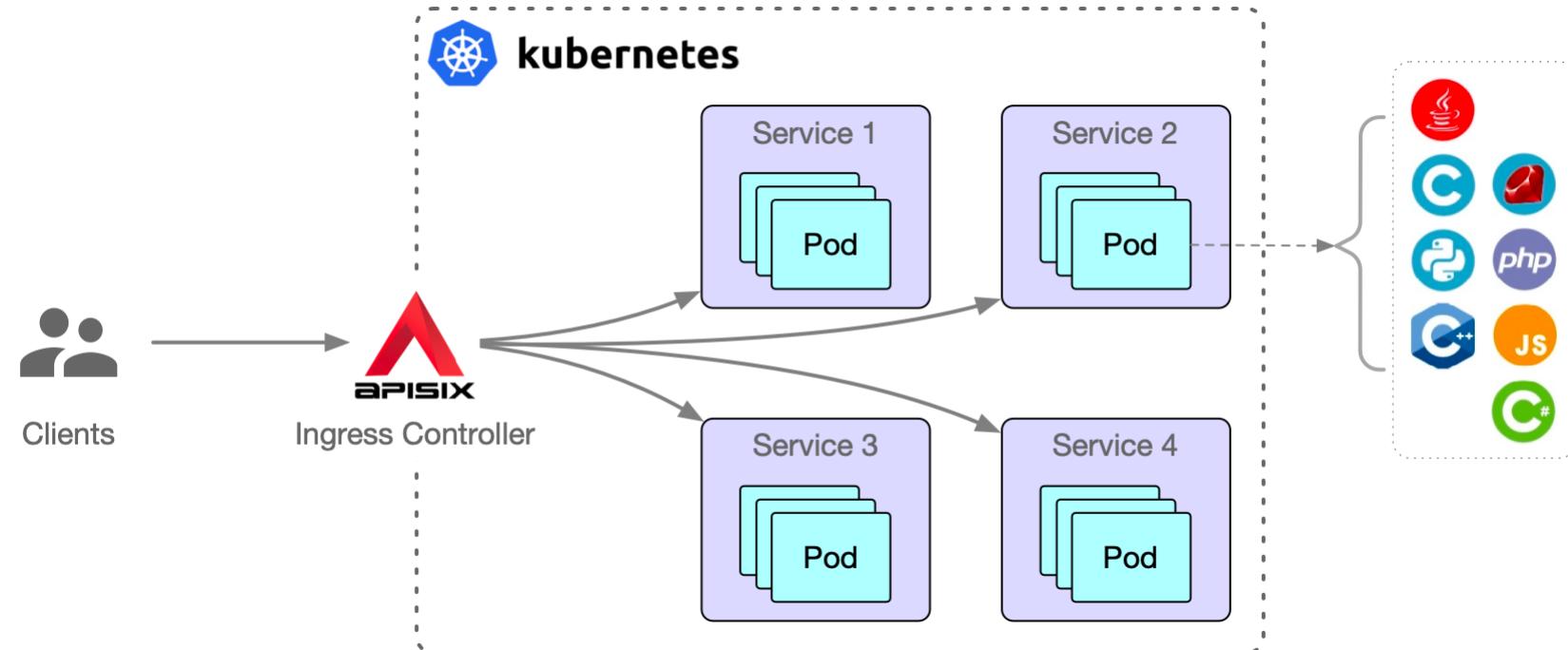


# 大纲

- 介绍 ingress 在 Kubernetes 中的位置
- Apache apisix-ingress-controller 的设计初衷
- Apache apisix-ingress-controller 特性
- Ingress 的一些思考 & 安装部署
- 使用案例
- 后期规划



- 什么是 ingress ?



# 设计初衷

- K8s Nginx Ingress 带来的痛点
  - 最痛的 reload
  - 脚本 annotation 难以维护
  - 扩展能力比较弱



# Apisix-ingress-controller 设计初衷

- 为解决痛点
- 使用更简单方便

一个合适的 proxy 必不可少



# 社区活跃度

- APISIX 国内最快毕业的 Apache 顶级项目
- 通过信通院“可信开源项目”认证
- 保持超高的社区活跃度

February 2, 2021 – March 2, 2021

Period: 1 month ▾



Excluding merges, 10 authors have pushed 27 commits to master and 28 commits to all branches. On master, 168 files have changed and there have been 7,955 additions and 3,749 deletions.



February 2, 2021 – March 2, 2021

Period: 1 month ▾

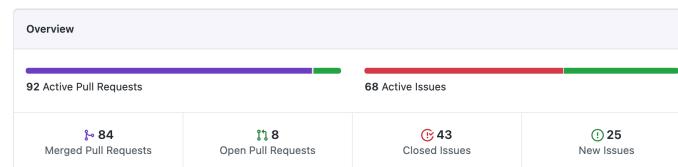


Excluding merges, 24 authors have pushed 109 commits to master and 176 commits to all branches. On master, 343 files have changed and there have been 12,485 additions and 4,014 deletions.



February 2, 2021 – March 2, 2021

Period: 1 month ▾



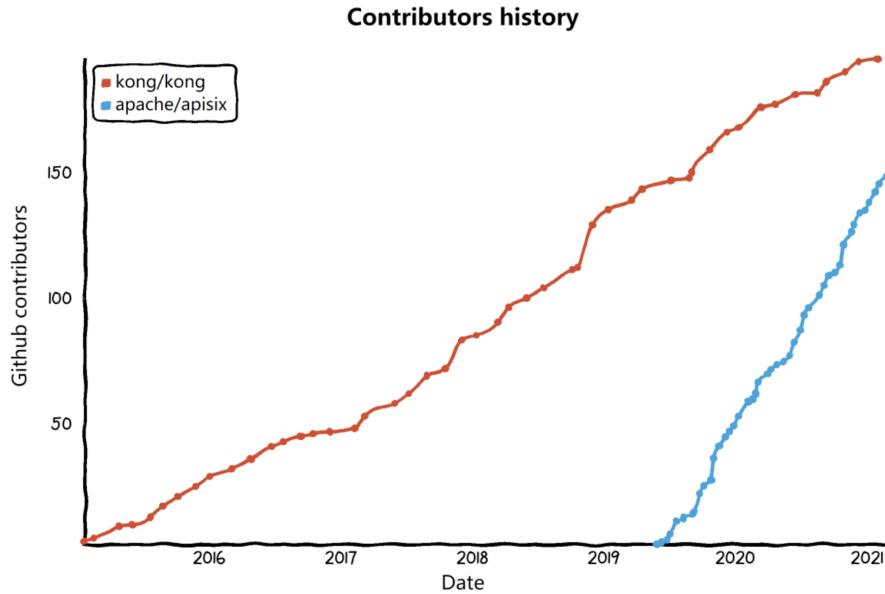
Excluding merges, 18 authors have pushed 78 commits to master and 85 commits to all branches. On master, 212 files have changed and there have been 15,385 additions and 8,522 deletions.



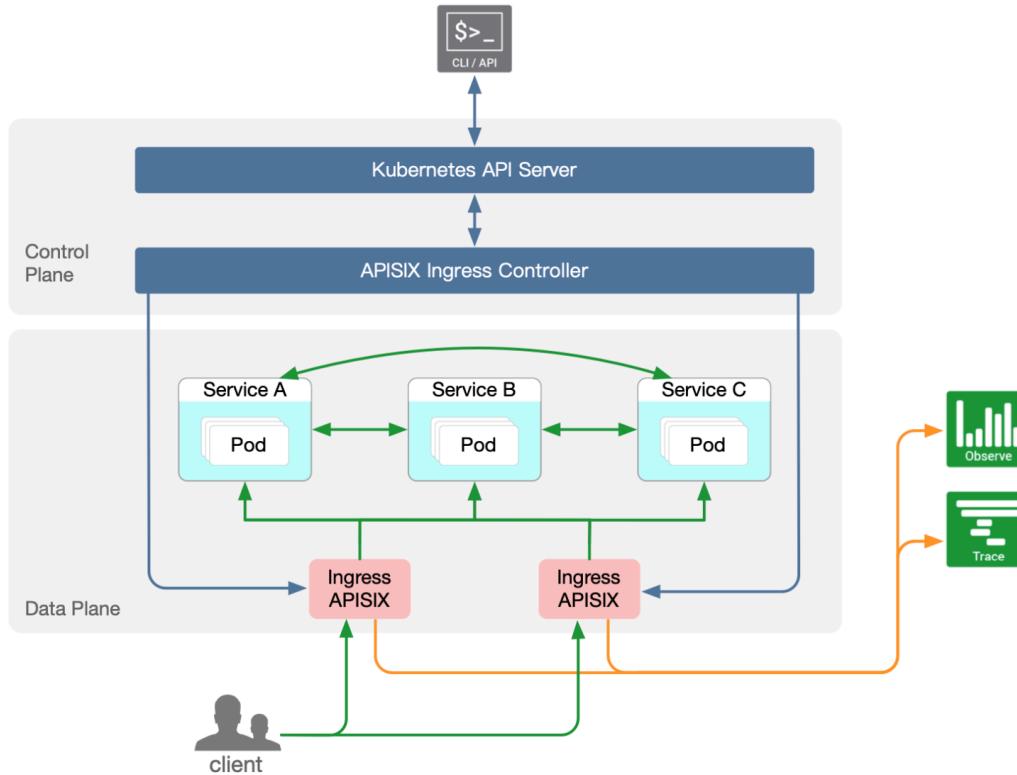
APISIX

# 社区活跃度

保持超高的社区活跃度 & 增长速度



# 整体介绍



# Ingress 介绍

- 特性
- 模块划分
- 使用示例
- 设计思考



# 特性

- 支持 k8s 原生 ingress 配置 (v1 and v1beta1)
- 支持 CRD (Custom Resource Definition) 声明式配置 (v1 and v2alpha)



# 特性

- 服务自动注册
- 开箱即用的 health check

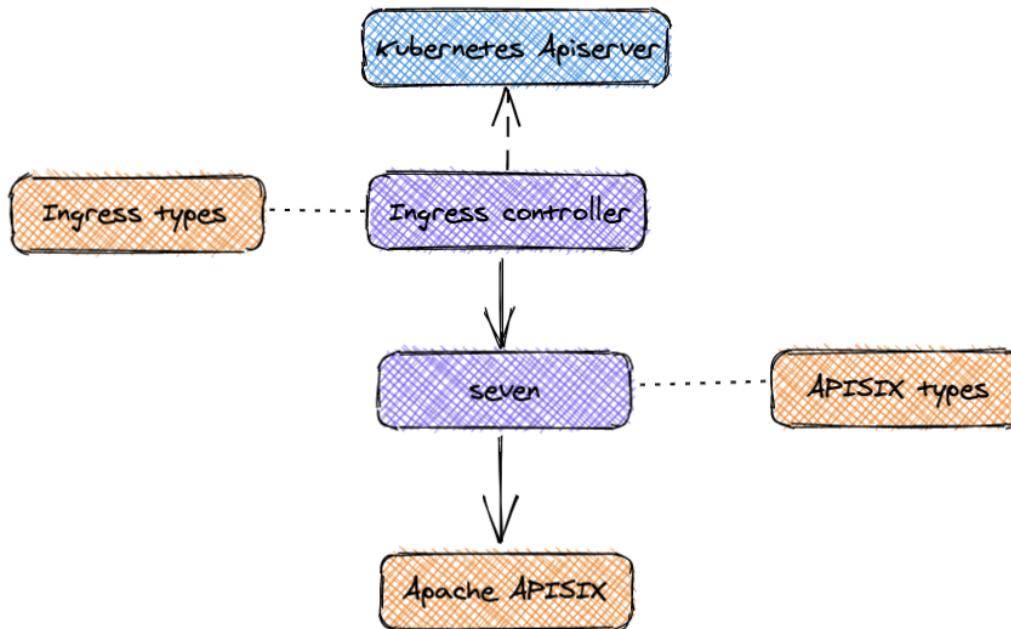


# 特性

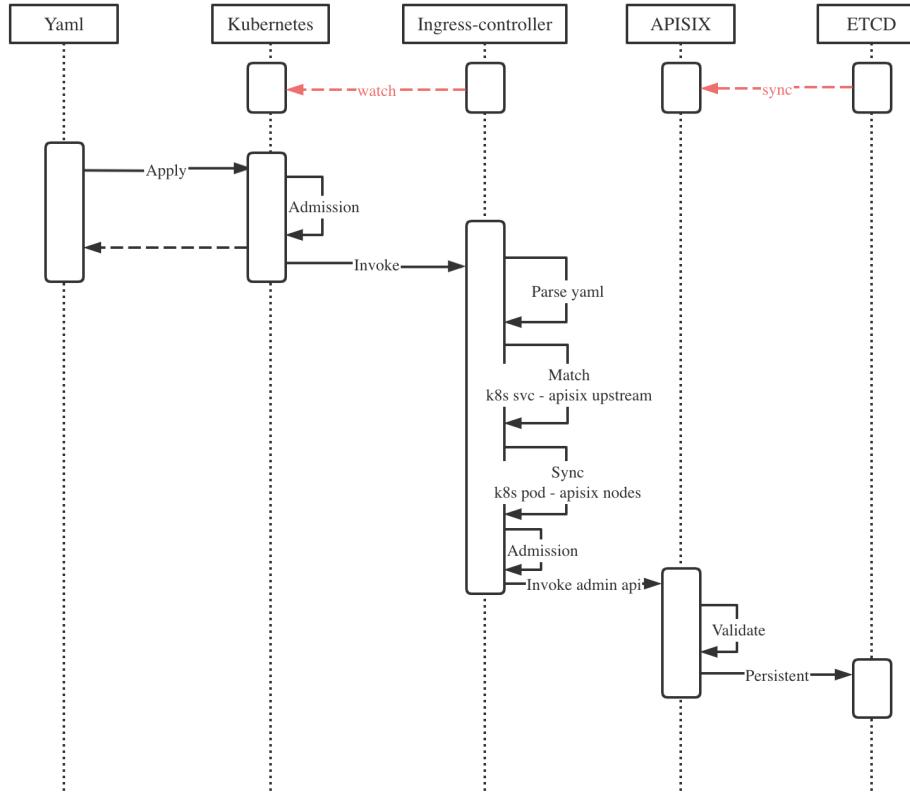
- 全动态：路由、SSL 证书、上游、插件...
- 支持 Apache APISIX 官方40 多个插件 & 客户自定义插件



# 模块划分



# 时序图



# 配置示例

```
1 apiVersion: apisix.apache.org/v1
2 kind: ApisixRoute
3 metadata:
4   name: foo-route
5 spec:
6   rules:
7     - host: foo.apisix.apache.org
8       http:
9         paths:
10           - backend:
11             serviceName: foo
12             servicePort: 8080
13             path: /hello*
```



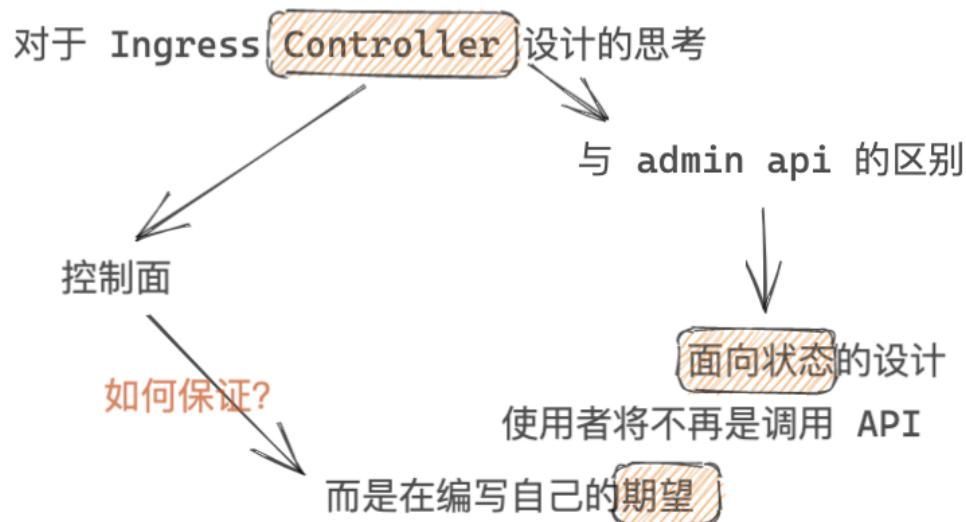
# 加个插件

```
1 piVersion: apisix.apache.org/v1
2 kind: ApisixRoute
3 metadata:
4   name: foo-route
5 spec:
6   rules:
7     - host: foo.apisix.apache.org
8       http:
9         paths:
10           - backend:
11             serviceName: foo
12             servicePort: 8080
13             path: /hello*
14   plugins:
15     - enable: true
16       name: proxy-rewrite
17   config:
18     regex_uri:
19       - '^/(.*)'
20       - '/extend/$1'
21     scheme: http
22     host: foo-beta.apisix.apache.org
```

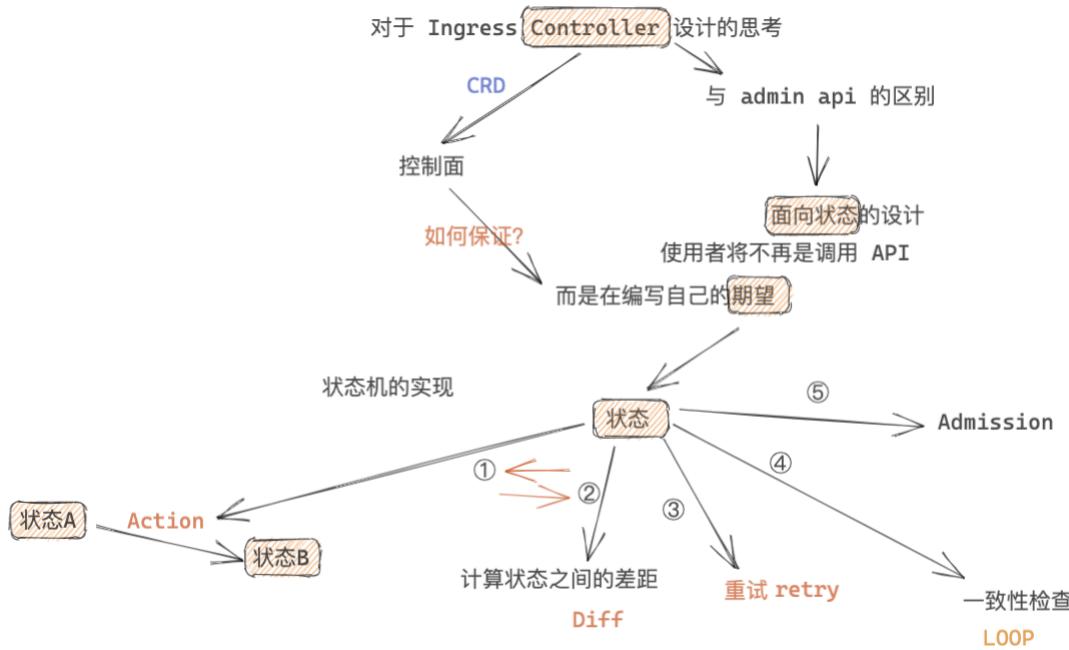


# 设计思考

- 声明式配置 or Admin API
- “做什么”和“怎么做”区别



# 设计思考



# 安装部署

- 支持 helm chart 部署

```
$ helm repo add apisix https://charts.apiseven.com  
$ helm search repo apisix  
$ helm repo update  
$ helm install my-ingress apisix/apisix-ingress-controller
```

- helm chart 仓库地址：<https://github.com/apache/apisix-helm-chart>



# 安装部署

- 支持各大云平台部署 <https://github.com/apache/apisix-ingress-controller/blob/master/install.md>

## Installation

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This is an index page about installing Ingress APISIX in several environments. Click the following links on demands.

- [Install Ingress APISIX on Azure AKS](#)
- [Install Ingress APISIX on AWS EKS](#)
- [Install Ingress APISIX on ACK](#)
- [Install Ingress APISIX on Google Cloud GKE](#)
- [Install Ingress APISIX on Minikube](#)
- [Install Ingress APISIX on KubeSphere](#)
- [Install Ingress APISIX on K3S and RKE](#)



# 用户案例



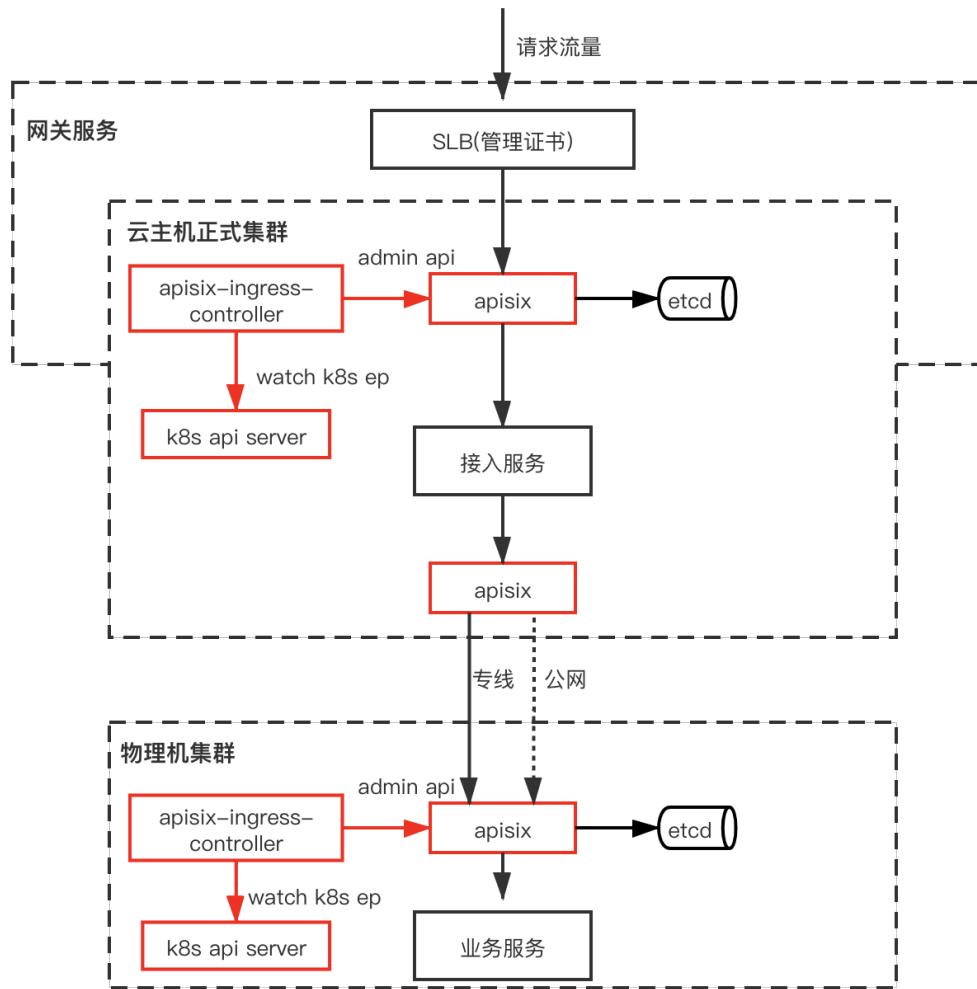


# AISpeech

**AISPEECH 思必驰**  
专注人性化的智能语音



# kubernetes

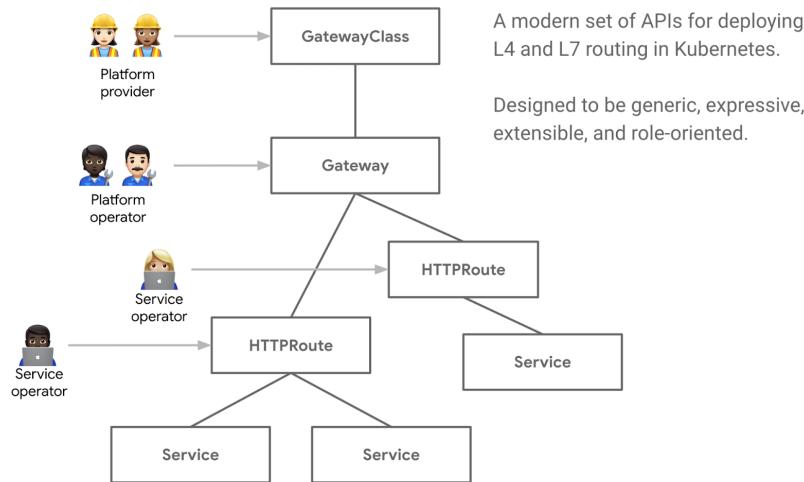


# 后期规划

- `apisix-ingress-controller` 不断完善，尽可能多的支持Apache APISIX 特性
- 在易用性上做持续探索

## Kubernetes Gateway-API

<https://www.apiseven.com/zh/blog/a-first-look-at-kubernetes-service-api>



# 后期规划

Apache apisix-ingress-controller 目前属于 Apache 孵化项目，期待今年能够毕业  
欢迎大家参与



# Q & A



扫一扫上面的二维码图案，加我微信

