

[18] Ingress

Ingress?

Ingress Controller 是 Kubernetes 集群中负责管理 HTTP 和 HTTPS 流量的组件。

它通过配置 Ingress 资源来定义集群外如何访问集群内的服务。

Reference

docs ingress

[Ingress](#)

Ingress

- Application Service
 - 部署: k8s
 - `ingress-nginx` namespace 部署 `nginx` `app=nginx` 的 `nginx` pod
 - 通过 `nginx` pod 暴露 `nginx` service
 - `appjs-service` Service 通过 `nginx` 暴露。通过 `nginx` 暴露。
- Ingress
 - `app-ingress.yaml` 文件定义 ingress 资源
 - `ingress` name: `app-ingress`
 - `NODE_PORT:30080/` 通过 `nginx` 暴露
 - `NODE_PORT:30080/app` 通过 `appjs-service` 暴露
 - ingress 资源有 annotations
 - annotations:
 - kubernetes.io/ingress.class: `nginx`



```
[user@console ~]$ kubectl config use-context k8s
```

```
# ingress-nginx 部署 部署 部署
```

```
[user@console ~]$ kubectl get pods -n ingress-nginx
```

```
# 部署 部署 部署 run 部署 ingress-nginx 部署 部署
```

```
[user@console ~]$ kubectl run nginx --namespace=ingress-nginx --image=nginx --labels=app=nginx
```

```
[user@console ~]$ kubectl get pods -n ingress-nginx
```

```
# 部署 部署 部署 部署 部署 expose
```

```
[user@console ~]$ kubectl expose -n ingress-nginx pod nginx --port 80 --target-port 80
```

```
[user@console ~]$ kubectl get svc -n ingress-nginx
```

```
[user@console ~]$ kubectl describe svc -n ingress-nginx nginx
```

```
----- docs部署 ingress 部署 -> The Ingress resource 部署 部署 -----
```

```
# yaml部署 vi部署 部署 部署 部署 部署
```

```
[user@console ~]$ vi app-ingress.yaml
```

```
apiVersion: networking.k8s.io/v1
```

```
kind: Ingress
```

```
metadata:
```

```
  namespace: ingress-nginx
```

```
  name: app-ingress
```

```
  annotations:
```

```
    nginx.ingress.kubernetes.io/rewrite-target: /
```

```
  kubernetes.io/ingress.class: nginx
```

```
spec:
```

```
  ingressClassName: nginx-example
```

```
  rules:
```

```
    - http:
```

```
      paths:
```

```
    - path: /
```

```
      pathType: Prefix
```

```
      backend:
```

```
        service:
```

```

    name: nginx
    port:
      number: 80
# 检查 nginx 是否可用
# nginx, appjs-service 是否可用
- path: /app
pathType: Prefix
backend:
  service:
    name: appjs-service
    port:
      number: 80

```

```


```

```

:wq

```

```

# namespace ingress-nginx 是否可用
[user@console ~]$ kubectl get svc -n ingress-nginx
appjs-service 80/TCP
nginx 80/TCP

```

```

[user@console ~]$ kubectl apply -f app-ingress.yaml

```

```

[user@console ~]$ kubectl get ingress -n ingress-nginx

```

```

[user@console ~]$ kubectl describe ingress -n ingress-nginx

```

```

[user@console ~]$ kubectl get nodes

```

```

[user@console ~]$ curl k8s-worker1:30080

```

```

[user@console ~]$ curl k8s-worker1:30080/app

```

任务 (30分)

Task Create a new nginx Ingress resource as follows:

- Name: ping
- Namespace: ing-internal
- Exposing service hi on path /hi using service port 5678
- hi 返回 200

- 

```
vi ping.yaml
```

```
apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  namespace: ing-internal
  name: ping
spec:
  rules:
  - http:
      paths:
      - path: /hi
        pathType: Prefix
      backend:
        service:
          name: hi
          port:
            number: 5678
```

```
:wq
```

```
kubectl apply -f ping.yaml
```

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