



链滴

# K8S deployment 模板

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原文链接: <https://ld246.com/article/1603696327135>

来源网站: [链滴](#)

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deployment 是 k8s中的无状态服务控制器，定义一组Pod期望数量，deployment 会维持Pod数量期望数量一致。一些无状态的服务可以使用deployment进行部署。这里以nmap-driver为例,作为一部署deployment服务的模板。

首先创建三个文件`cm.yaml`,`nmap-driver.yaml`,`svc.yaml`

## svc.yaml

这是service 模板文件，用来提供外部访问服务。

```
apiVersion: v1
kind: Service
metadata:
  name: nmap-driver
  namespace: sky
  labels:
    app: nmap-driver
spec:
  ports:
    - name: grpc
      targetPort: 19999
      port: 19999
      clusterIP: None
  selector:
    app: nmap-driver
---
apiVersion: v1
kind: Service
metadata:
  name: nmap-driver-service
  namespace: sky
```

```
labels:
  app: namp-driver
spec:
  externalIPs:      # 暴露Service到外部IP
  - 192.168.1.146   # IP
  selector:
    app: namp-driver
  ports:
  - name: grpc
    targetPort: 19999
    port: 19999
```

## cm.yaml

使用configmap 管理配置文件。

```
kind: ConfigMap
metadata:
  name: nmap-driver-config
  namespace: sky
  labels:
    addonmanager.kubernetes.io/mode: Reconcile
data:
  config.ini: |
    [Nmap-Driver]
    port=19999
  logging.conf: |
    [loggers]
    keys=root

    [handlers]
    keys=allHandler,errorHandler

    [formatters]
    keys=simpleFormatter,detailFormatter

    [logger_root]
    level=DEBUG
    handlers=allHandler,errorHandler

    [handler_allHandler]
    class=logging.handlers.TimedRotatingFileHandler
    args=('/root/log/all.log', 'D',1,7)
    level=DEBUG
    formatter=simpleFormatter

    [handler_errorHandler]
    class=logging.handlers.TimedRotatingFileHandler
    args=('/root/log/error.log', 'D',1,7)
    level=ERROR
    formatter=detailFormatter

    [formatter_simpleFormatter]
```

```
format=%(asctime)s - %(levelname)s - %(message)s
```

```
[formatter_detailFormatter]
```

```
format=%(asctime)s - %(levelname)s - %(filename)s[:%(lineno)d] - %(message)s
```

## nmap-driver.yaml

deployment 文件 设置副本数, 配置启动镜像 启动参数 挂载配置文件

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nmap-driver
  namespace: sky
spec:
  replicas: 1
  selector:
    matchLabels:
      app: nmap-driver
  template:
    metadata:
      name: nmap-driver
      labels:
        app: nmap-driver
    spec:
      tolerations:
        - key: "node.kubernetes.io/unreachable"
          operator: "Exists"
          effect: "NoExecute"
          tolerationSeconds: 60
        - key: "node.kubernetes.io/not-ready"
          operator: "Exists"
          effect: "NoExecute"
          tolerationSeconds: 60
      terminationGracePeriodSeconds: 0 # 异常立即删除
      containers:
        - name: nmap-driver
          securityContext:
            privileged: true
          imagePullPolicy: IfNotPresent
          image: hub.sky-cloud.net/sky/nmap-driver:master_build-4

      ports:
        - name: grpc
          containerPort: 19999
      env:
        - name: TZ
          value: Asia/Shanghai
      volumeMounts:
        - name: tz
          mountPath: /etc/localtime
        - name: log
          mountPath: /root/log #将容器内的这个日志目录挂载到外部/srv/sky/nmap-driver/log
        - name: config
```

```
    mountPath: /nmap-driver/config #configmap中的配置文件 挂载到容器的这个文件夹
volumes:
- name: tz
  hostPath:
    path: /etc/localtime
- name: log
  hostPath:
    path: /srv/sky/nmap-driver/log
- name: config
  configMap:
    name: nmap-driver-config
    items:
    - key: config.ini
      path: config.ini
    - key: logging.conf
      path: logging.conf
```

## 启动

使用kubectl 命令启动

```
kubectl apply -f .
```

根据这个模板 只需一下几个步骤就可启动一个deployment服务

1. 替换项目名和namespace
2. 替换svc.yaml里面的ip和端口
3. 在cm.yaml里面放入配置文件
4. 挂载日志文件目录和config
5. 替换镜像