Deployments

» Canary Deployments

Overview

Create a deployment and service for our application starting out with 2 replicas.

```
cat > hello-whoami-stable.yaml <<EOF
apiVersion: apps/v1beta1
kind: Deployment
metadata:
  name: hello-whoami
spec:
  replicas: 2
  template:
    metadata:
      labels:
        app: hello-whoami
        tier: frontend
        track: stable
    spec:
      containers:
        - name: hello-whoami
          image: quay.io/coreostrainme/hello-whoami:2
          ports:
          - containerPort: 80
---
apiVersion: v1
kind: Service
metadata:
  name: hello-whoami
spec:
  type: LoadBalancer
  selector:
    app: hello-whoami
    tier: frontend
  ports:
    - port: 80
      protocol: TCP
      targetPort: 80
EOF
```

Create the deployment and load balancer service based on the manifest.

```
kubectl create -f hello-whoami-stable.yaml
```

Obtain the public external hostname for the service.

```
kubectl get svc hello-whoami -o wide
WHOAMI_HOST=$(kubectl get svc hello-whoami -o jsonpath='{.status.loadBalancer.ingress[0].hostname}')
echo $WHOAMI_HOST
```

While waiting for DNS, view the list of pods for the deployment.

```
kubectl get pods -l app=hello-whoami -o wide
```

When ready, access the service with the `httpie` utility.

```
http $WHOAMI_HOST
```

Canary Deployment

Next, create a `canary` deployment for a new version of the application.

```
cat > hello-whoami-canary.yaml <<EOF
apiVersion: apps/v1beta1
kind: Deployment
metadata:
  name: hello-whoami-canary
spec:
  replicas: 1
  template:
    metadata:
      labels:
        app: hello-whoami
        tier: frontend
        track: canary
    spec:
      containers:
        - name: hello-whoami-canary
          image: quay.io/coreostrainme/hello-whoami:3
          ports:
          - containerPort: 80
EOF
```

Create the `canary` deployment based on the manifest.

```
kubectl create -f hello-whoami-canary.yaml
```

When you are satisfied with the canary pod, rollout the new version to the rest of the `stable` nodes.

```
kubectl set image deploy/hello-whoami hello-whoami=quay.io/coreostrainme/hello-whoami:3 --all
```

Verify that the new version is rolled out completely.

```
http $WHOAMI_HOST
```

When the new version has been rolled out, remove the canary deployment.

```
kubectl delete -f hello-whoami-canary.yaml
```

Clean Up

Clean up the deployment and service when you are finished.

```
kubectl delete -f hello-whoami-stable.yaml
```

View any remaining services.

```
kubectl get all
```