

1.1 Secret 实验手册

1.1.1 使用 Secret

步骤 1 创建两个文件，存放“用户”和“密码”两个参数。

```
[root@k8s-master configmap]# echo -n "admin" > username.txt
[root@k8s-master configmap]# echo -n "Huawei@123" > password.txt
```

步骤 2 使用命令行创建 Secret，名字为 db-user-pass

```
[root@k8s-master configmap]# kubectl create secret generic db-user-pass --from-
file=username.txt --from-file=password.txt
```

步骤 3 查看 secret 信息，可以看到 secret 不直接显示明文数据，注意！请不要删除 default token！

```
[root@k8s-master configmap]# kubectl get secret
```

NAME	TYPE	DATA	AGE
db-user-pass	Opaque	2	33m
default-token-4vq75	kubernetes.io/service-account-token	3	14d

```
[root@k8s-master configmap]# kubectl describe secret db-user-pass
```

```
Name:          db-user-pass
Namespace:     default
Labels:        <none>
Annotations:   <none>
```

```
Type: Opaque
```

```
Data
```

```
====
```

```
password.txt: 10 bytes
username.txt: 5 bytes
```

步骤 4 使用 base64 编码数据

```
[root@k8s-master configmap]# echo -n "admin" | base64
```

```
YWRtaW4=
```

```
[root@k8s-master configmap]# echo -n "Huawei@123" | base64
```

```
SHVhd2VpQDEyMw==
```

步骤 5 创建 Yaml 文件，写入编码后的数据

```
[root@k8s-master configmap]# vim secret.yaml
```

```
apiVersion: v1
kind: Secret
metadata:
  name: mysecret
type: Opaque
data:
  username: YWRtaW4=
  password: SHVhd2VpQDEyMw==
```

步骤 6 创建 secret

```
[root@k8s-master configmap]# kubectl apply -f secret.yaml
```

步骤 7 查看 secret 的详细信息

```
[root@k8s-master configmap]# kubectl describe secrets mysecret
```

```
Name:          mysecret
Namespace:     default
Labels:        <none>
Annotations:
Type:          Opaque

Data
====
password:  10 bytes
username:   5 bytes
```

1.1.2 使用 secret

步骤 1 创建 Pod 的 yaml 文件，以 volume 形式挂在 secrets

```
[root@k8s-master configmap]# vim spod.yaml
```

```
apiVersion: v1
kind: Pod
metadata:
  name: spod
spec:
  containers:
    - image: busybox
      name: spod
      args: ["/bin/sh", "-c", "sleep 3000"]
      volumeMounts:
        - name: secrets
          mountPath: "/etc/secret"
          readOnly: true
```

```
volumes:
- name: secrets
  secret:
    secretName: mysecret
```

步骤 2 创建 pod

```
[root@k8s-master configmap]# kubectl apply -f spod.yaml
```

步骤 3 进入 pod, 查看 pod 内 secret 数据, 可以看到数据已经被解码, 并且一个 “DATA” 存储为一个文件。

```
[root@k8s-master configmap]# kubectl exec -it spod /bin/sh
/ # cd /etc/secret
/etc/secret # ls
password username
/etc/secret # cat password
Huawei@123
/etc/secret # cat username
admin
```

步骤 4 使用 Secret 并且挂载指定值, 创建使用 secret 的 pod

```
[root@k8s-master configmap]# vim spod2.yaml
```

```
apiVersion: v1
kind: Pod
metadata:
  name: spod2
spec:
  containers:
  - image: busybox
    name: spod2
    args: ["/bin/sh", "-c", "sleep 3000"]
    volumeMounts:
    - name: secrets
      mountPath: "/etc/secret"
      readOnly: true
  volumes:
  - name: secrets
    secret:
      secretName: mysecret
    items:
    - key: password
      path: my-group/my-passwd
```

步骤 5 创建 pod

```
[root@k8s-master configmap]# kubectl apply -f spod2.yaml
```

步骤 6 进入 Pod, 查看 secret 数据。

```
[root@k8s-master configmap]# kubectl exec -it spod2 /bin/sh
/ # cd /etc/secret
/etc/secret # ls
my-group
/etc/secret # cd my-group/
/etc/secret/..2019_07_03_01_45_21.293660863/my-group # ls
my-passwd
/etc/secret/..2019_07_03_01_45_21.293660863/my-group # cat my-passwd
Huawei@123
```