

tags: addons, dashboard

08-3. 部署 dashboard 插件

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如果没有特殊指明，本文档的所有操作均在 **zhangjun-k8s-01** 节点上执行；

下载和修改配置文件

```
cd /opt/k8s/work
wget https://raw.githubusercontent.com/kubernetes/dashboard/v2.0.0-rc4/aio/deploy/recommended.yaml
mv recommended.yaml dashboard-recommended.yaml
```

执行所有定义文件

```
cd /opt/k8s/work
kubectl apply -f dashboard-recommended.yaml
```

查看运行状态

```
$ kubectl get pods -n kubernetes-dashboard
```

NAME	READY	STATUS	RESTARTS	AGE
dashboard-metrics-scraper-7b8b58dc8b-dlk5t	1/1	Running	0	70s
kubernetes-dashboard-6cfc8c4c9-j8vcm	1/1	Running	0	70s

访问 dashboard

从 1.7 开始，dashboard 只允许通过 https 访问，如果使用 kube proxy 则必须监听 localhost 或 127.0.0.1。对于 NodePort 没有这个限制，但是仅建议在开发环境中使用。对于不满足这些条件的登录访问，在登录成功后浏览器不跳转，始终停在登录界面。

通过 port forward 访问 dashboard

启动端口转发：

```
[root@zhangjun-k8s-01 work] kubectl port-forward -n kubernetes-dashboard  
svc/kubernetes-dashboard 4443:443 --address 0.0.0.0
```

浏览器访问 URL：https://172.27.138.251:4443

Kubernetes Dashboard

☒ Kubeconfig

Please select the kubeconfig file that you have created to configure access to the cluster. To find out more about how to configure and use kubeconfig file, please refer to the [Configure Access to Multiple Clusters](#) section.

☐ Token

Every Service Account has a Secret with valid Bearer Token that can be used to log in to Dashboard. To find out more about how to configure and use Bearer Tokens, please refer to the [Authentication](#) section.

Choose kubeconfig file

...

Unauthorized (401): You have been logged out because your token has expired.

Sign in

创建登录 Dashboard 的 token 和 kubeconfig 配置文件

dashboard 默认只支持 token 认证（不支持 client 证书认证），所以如果使用 Kubeconfig 文件，需要将 token 写入到该文件。

创建登录 token

```
kubectl create sa dashboard-admin -n kube-system
kubectl create clusterrolebinding dashboard-admin --clusterrole=cluster-admin --
serviceaccount=kube-system:dashboard-admin
ADMIN_SECRET=$(kubectl get secrets -n kube-system | grep dashboard-admin | awk
'{print $1}')
DASHBOARD_LOGIN_TOKEN=$(kubectl describe secret -n kube-system ${ADMIN_SECRET} | grep
-E '^token' | awk '{print $2}')
echo ${DASHBOARD_LOGIN_TOKEN}
```

使用输出的 token 登录 Dashboard。

创建使用 token 的 KubeConfig 文件

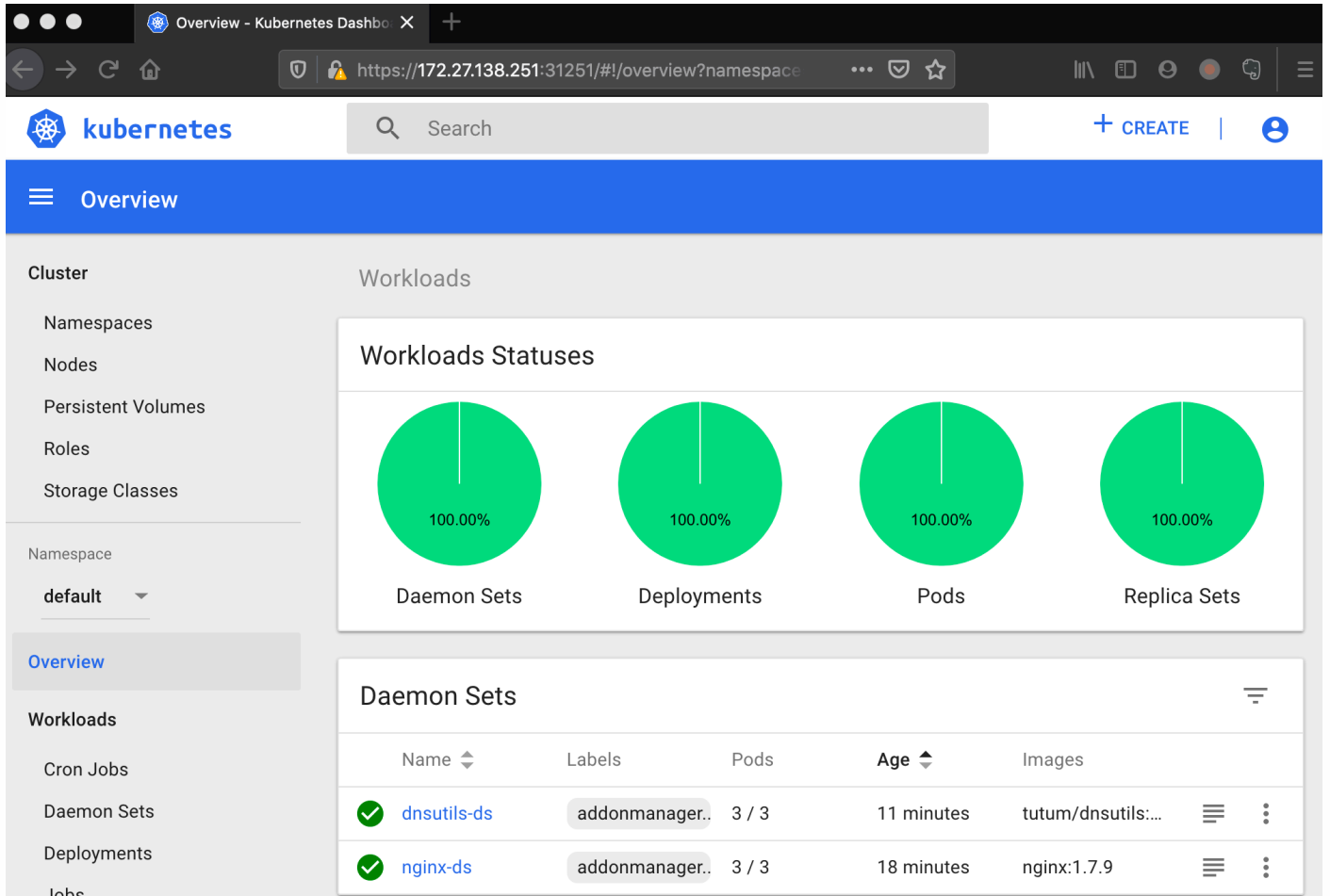
```
source /opt/k8s/bin/environment.sh
# 设置集群参数
kubectl config set-cluster kubernetes \
  --certificate-authority=/etc/kubernetes/cert/ca.pem \
  --embed-certs=true \
  --server=${KUBE_APISERVER} \
  --kubeconfig=dashboard.kubeconfig

# 设置客户端认证参数，使用上面创建的 Token
kubectl config set-credentials dashboard_user \
  --token=${DASHBOARD_LOGIN_TOKEN} \
  --kubeconfig=dashboard.kubeconfig

# 设置上下文参数
kubectl config set-context default \
  --cluster=kubernetes \
  --user=dashboard_user \
  --kubeconfig=dashboard.kubeconfig

# 设置默认上下文
kubectl config use-context default --kubeconfig=dashboard.kubeconfig
```

用生成的 dashboard.kubeconfig 登录 Dashboard。



参考

1. <https://github.com/kubernetes/dashboard/wiki/Access-control>
2. <https://github.com/kubernetes/dashboard/issues/2558>
3. <https://kubernetes.io/docs/concepts/configuration/organize-cluster-access-kubeconfig/>
4. <https://github.com/kubernetes/dashboard/wiki/Accessing-Dashboard---1.7.X-and-above>
5. <https://github.com/kubernetes/dashboard/issues/2540>