Dashboard

Dashboard

- `kubectl apply -f https://raw.githubusercontent.com/kubernetes/dashboard/v2.0.4/aio/`

- TEST

```
kubectl proxy

--> http://localhost:8001/api/v1/namespaces/kubernetes-dashboard/services/https:kub
```

- User Account

```
cat <<EOF | kubectl apply -f -
apiVersion: v1
kind: ServiceAccount
metadata:
  name: admin-user
  namespace: kubernetes-dashboard
EOF


cat <<EOF | kubectl apply -f -
apiVersion: rbac.authorization.k8s.io/v1
kind: ClusterRoleBinding
metadata:
  name: admin-user
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: ClusterRole
  name: cluster-admin
subjects:
- kind: ServiceAccount
  name: admin-user
  namespace: kubernetes-dashboard
EOF
```

- 인증서

```
# mkdir ~/certs
# cd ~/certs

# openssl genrsa -out dashboard.key 2048
# openssl rsa -in dashboard.key -out dashboard.key
# openssl req -sha256 -new -key dashboard.key -out dashboard.csr -subj '/CN=localho
# openssl x509 -req -sha256 -days 365 -in dashboard.csr -signkey dashboard.key -out
```

- Recommended setup

```
# kubectl create secret generic kubernetes-dashboard-certs --from-file=$HOME/certs
# kubectl apply -f https://raw.githubusercontent.com/kubernetes/dashboard/v2.0.4/ai
```

- 20231023 - 안만들어진 경우

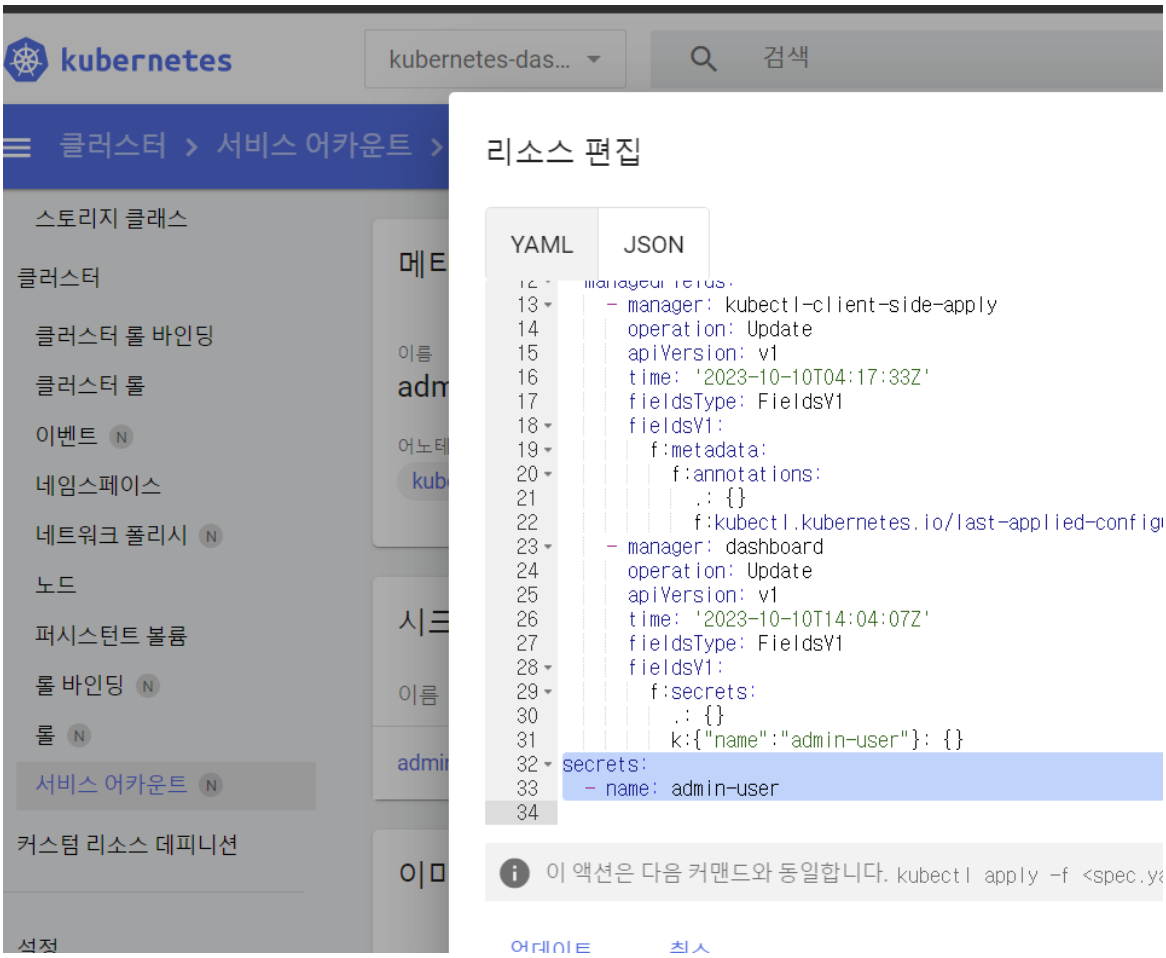
```
hyunsu@3-kubemaster:~$ kubectl -n kubernetes-dashboard create token admin-
user
eyJhbGciOiJSUzI1NiIsImtpZCI6IlVPZF9GTEpzakhRMGtCOUM4VV9oMWt0aG9VVXVvaW4zQk1wZ
E1RbEdfTVEifQ.eyJhdWQiOlsiaHR0cHM6Ly9rdWJlcm5ldGVzLmRlZmF1bHQuc3ZjLmNsdXN0ZXI
```

```
ubG9jYWwiXSwiZXhwIjoxNjk2NTA5NzYzLCJpYXQiOjE2OTY1MDYxNjMsImlzcyI6Imh0dHBzOi8v
a3ViZXJuZXRlcy5kZWZhdWx0LnN2Yy5jbHVzdGVyLmxvY2FsIiwia3ViZXJuZXRlcy5pbyI6eyJuY
W1lc3BhY2UiOiJrdWJlcm5ldGVzLWRhc2hib2FyZCIsInNlcnZpY2VhY2NvdW50Ijp7Im5hbWUiOi
JhZG1pbi11c2VyIiwidWlkIjoiOTQ0OTFiMGEtZTI5YS00ZTU5LWJmOTMtM2VmZWFjYTFhMmMzIn1
9LCJuYmYiOjE2OTY1MDYxNjMsInN1YiI6InN5c3RlbTpzZXJ2aWNlYWNjb3VudDprdWJlcm5ldGVz
LWRhc2hib2FyZDphZG1pbi11c2VyIn0.AiQRSv23cimjPMC8uNWy0M-Cgn5vcNdn32tl-
gu3zuCjkzD4RwXxX3vhDMdDIjX_kYPsit0LM1HWxq9vBck_8Lh3WBk-
mubD2CdUxmAyH63iGfC47V98Kg4aFRm3nmZU-
kXaEG12MozTAqq-8_2G9p3A0ZR4TcJarnjY_waWKd-1kZRvPr_e5hJuI5_o31NAp6bWDQn9Izf28E
WIWuzlkasR2vXY2PIpCPHCphiye01en03-
dC5mN13fLCaPsuSqs3xx_lA8D4iMmaruSuu6tIDVtvmlFg8eCBApbBjyGdHxpRMqK3eT-
XRI_hRpa1gn9gPhVdZWSTDoAHzWXY8vQA
```

시크릿이 이제는 자동으로 만들어지지 않는 듯합니다.
상기한 토큰으로 로그인한 후에 해당 계정의 UID를 확인 후 아래 시크릿을 만들어야 합니다.

```
apiVersion: v1
kind: Secret
type: kubernetes.io/service-account-token
metadata:
  name: admin-user
  namespace: kubernetes-dashboard
  annotations:
    kubernetes.io/service-account.name: admin-user
    kubernetes.io/service-account.uid: 43ecdad8-4e2f-4a6a-bd2f-de9a91cfc69b
```

Secret을 만들고 사용자(admin-user)에 반영합니다.



- kubectl -n kubernetes-dashboard edit service kubernetes-dashboard

```
# Please edit the object below. Lines beginning with a '#' will be ignored,
# and an empty file will abort the edit. If an error occurs while saving this
file will be
# reopened with the relevant failures.
#
apiVersion: v1
kind: Service
metadata:
  annotations:
    kubectl.kubernetes.io/last-applied-configuration: |
      {"apiVersion":"v1","kind":"Service","metadata":{"annotations":
{},"labels":{"k8s-app":"kubernetes-dashboard"},"name":"kubernetes-
dashboard","namespace":"kubernetes-dashboard"},"spec":{"ports":
[{"port":443,"targetPort":8443}],"selector":{"k8s-app":"kubernetes-
dashboard"}}}
  creationTimestamp: "2020-09-26T14:01:45Z"
  labels:
    k8s-app: kubernetes-dashboard
  name: kubernetes-dashboard
  namespace: kubernetes-dashboard
  resourceVersion: "3356"
  selfLink: /api/v1/namespaces/kubernetes-dashboard/services/kubernetes-
```

```
dashboard
  uid: f064c119-2560-42c2-aa2b-69302aa0866b
spec:
  clusterIP: 10.97.63.192
  ports:
  - port: 443
    protocol: TCP
    targetPort: 8443
  selector:
    k8s-app: kubernetes-dashboard
  sessionAffinity: None
  type: ClusterIP
status:
  loadBalancer: {}
```

---> 아래와 같이 변경 !!!

```
# Please edit the object below. Lines beginning with a '#' will be ignored,
# and an empty file will abort the edit. If an error occurs while saving this
file will be
# reopened with the relevant failures.
#
apiVersion: v1
kind: Service
metadata:
  annotations:
    kubectl.kubernetes.io/last-applied-configuration: |
      {"apiVersion":"v1","kind":"Service","metadata":{"annotations":
{},"labels":{"k8s-app":"kubernetes-dashboard"},"name":"kubernetes-
dashboard","namespace":"kubernetes-dashboard"},"spec":{"ports":
[{"port":443,"targetPort":8443}],"selector":{"k8s-app":"kubernetes-
dashboard"}}}
  creationTimestamp: "2020-09-26T14:01:45Z"
  labels:
    k8s-app: kubernetes-dashboard
  name: kubernetes-dashboard
  namespace: kubernetes-dashboard
  resourceVersion: "3356"
  selfLink: /api/v1/namespaces/kubernetes-dashboard/services/kubernetes-
dashboard
  uid: f064c119-2560-42c2-aa2b-69302aa0866b
spec:
  clusterIP: 10.97.63.192
  ports:
  - nodePort: 31055
```

```
    port: 443
    protocol: TCP
    targetPort: 8443
  selector:
    k8s-app: kubernetes-dashboard
  sessionAffinity: None
  type: NodePort
status:
  loadBalancer: {}
```

- Dashboard 접속정보 확인

```
# kubectl get service -n kubernetes-dashboard
NAME                   TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)
calico-typha           ClusterIP   10.109.234.181   <none>        5473/TCP
kube-dns               ClusterIP   10.96.0.10       <none>        53/UDP,53/TCP,915
kubernetes-dashboard   NodePort    10.105.161.59    <none>        443:31055/TCP
```

- Dashboard 계정 생성

```
# kubectl create serviceaccount cluster-admin-dashboard-sa
# kubectl create clusterrolebinding cluster-admin-dashboard-sa --clusterrole=cluste
```

- Dashboard 접속 시 필요한 계정 토큰 정보 확인

```
hyunsu@kubemaster:~$ kubectl -n kubernetes-dashboard describe secret $(kubectl -n k



Name:         admin-user-token-wn487
Namespace:    kubernetes-dashboard
Labels:       <none>
Annotations:  kubernetes.io/service-account.name: admin-user
              kubernetes.io/service-account.uid: ad6f92c1-3ed1-4680-80da-4d9dcf8440

Type:  kubernetes.io/service-account-token

Data
====
ca.crt:     1066 bytes
namespace:  20 bytes
token:      eyJhbGciOiJSUzI1NiIsImtpZCI6IkVEQnlPWER5ek85WjF0VlFScXNJRzZGOW1TMFJRN1l


Name:         default-token-9x79k
Namespace:    kubernetes-dashboard
Labels:       <none>
Annotations:  kubernetes.io/service-account.name: default
              kubernetes.io/service-account.uid: 9d2a8308-a11e-4183-aed2-be4aadcafa

Type:  kubernetes.io/service-account-token

Data
====
ca.crt:     1066 bytes
namespace:  20 bytes
token:      eyJhbGciOiJSUzI1NiIsImtpZCI6IkVEQnlPWER5ek85WjF0VlFScXNJRzZGOW1TMFJRN1l


Name:         kubernetes-dashboard-certs
Namespace:    kubernetes-dashboard
Labels:       k8s-app=kubernetes-dashboard
```

```
Annotations:  <none>

Type:  Opaque

Data
====


Name:         kubernetes-dashboard-csrf
Namespace:    kubernetes-dashboard
Labels:       k8s-app=kubernetes-dashboard
Annotations:  <none>

Type:  Opaque

Data
====
csrf:  256 bytes


Name:         kubernetes-dashboard-key-holder
Namespace:    kubernetes-dashboard
Labels:       k8s-app=kubernetes-dashboard
Annotations:  <none>

Type:  Opaque

Data
====
priv:  1675 bytes
pub:   459 bytes


Name:         kubernetes-dashboard-token-glnd4
Namespace:    kubernetes-dashboard
Labels:       <none>
Annotations:  kubernetes.io/service-account.name: kubernetes-dashboard
              kubernetes.io/service-account.uid: 58104d32-8e7e-4b4f-9e24-e8aafe8ead

Type:  kubernetes.io/service-account-token

Data
====
ca.crt:     1066 bytes
namespace:  20 bytes
token:      eyJhbGciOiJSUzI1NiIsImtpZCI6IkVEQnlPWER5ek85WjF0VlFScXNJRzZGOW1TMFJRN1l
```

- 접근 시 인증서 오류 문제

```
openssl pkcs12 -export -clcerts -inkey dashboard.key -in dashboard.crt -out dashboa
```

- Dash Board
  - https://medium.com/@smijar/installing-kubernetes-all-in-one-on-a-low-resource-vps-1c89dd5f0096
- 참고
  - http://www.cubrid.com/blog/3820603
  - https://hiseon.me/linux/ubuntu/ubuntu-kubernetes-install/

- https://futurecreator.github.io/2019/02/25/kubernetes-cluster-on-google-compute-engine-for-developers/

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