10. Enable Access to the Cluster with the GKE Console: NetApp HCI with Anthos

HCI

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After clusters are deployed and registered with Google Cloud, they must be logged into with the Google Cloud console to be managed and to receive additional cluster details. The official procedure to gain access to Anthos user clusters after they are deployed is detailed here.

The project and the specific user must be whitelisted to access on-premises clusters in the Google Cloud console and use Anthos on VMware services. If you are unable to see the clusters after they are deployed, you might need to open a support ticket with Google.

Figure 1. Non-whitelisted view.

Figure 2. View of clusters.

To enable access to your user clusters using the GKE console, complete the following steps:

1. Create a `node-reader.yaml` file that gives you the ability to access the cluster.

```
kind: clusterrole
apiVersion: rbac.authorization.k8s.io/v1
metadata:
 name: node-reader
rules:
- apiGroups: [""]
  resources: ["nodes"]
  verbs: ["get", "list", "watch"]
```

2. Apply this file to the cluster that you want to log into with the `kubectl` command.

```
ubuntu@Anthos-Admin-Workstation:~$ kubectl apply -f node-reader.yaml --kubeconfig
anthos-cluster01-kubeconfig
clusterrole.rbac.authorization.k8s.io/node-reader created
```

3. Create a Kubernetes service account (KSA) that you can use to login. Name this account after the user that uses this account to log into the cluster.

```
ubuntu@Anthos-Admin-Workstation:~$ kubectl create serviceaccount netapp-user
--kubeconfig anthos-cluster01-kubeconfig
serviceaccount/netapp-user created
```

4. Create cluster role-binding resources to bind both the view and newly created node-reader roles to the newly created KSA.

```
ubuntu@Anthos-Admin-Workstation:~$ kubectl create clusterrolebinding netapp-user-view
--clusterrole view --serviceaccount default:netapp-user --kubeconfig anthos-cluster01-
kubeconfig
clusterrolebinding.rbac.authorization.k8s.io/netapp-user-view created
ubuntu@Anthos-Admin-Workstation:~$ kubectl create clusterrolebinding netapp-user-node-
reader --clusterrole node-reader -
-serviceaccount default:netapp-user --kubeconfig anthos-cluster01-kubeconfig
clusterrolebinding.rbac.authorization.k8s.io/netapp-user-node-reader created
```

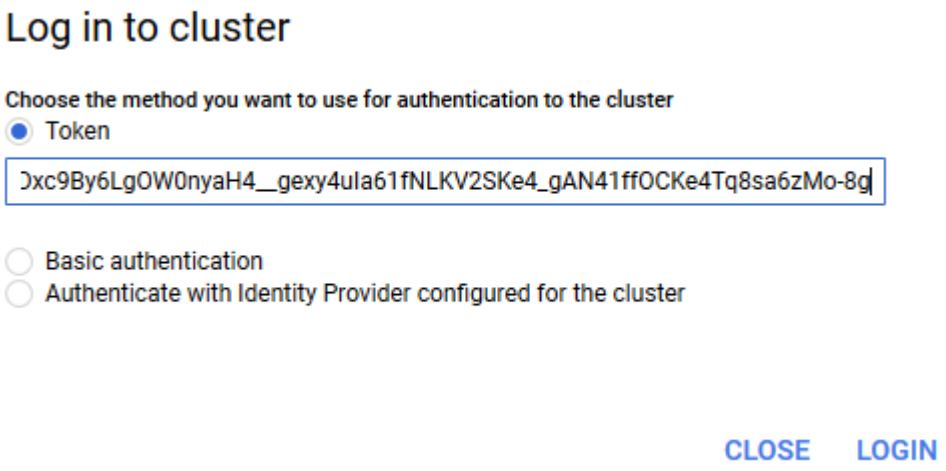
5. If you need to extend permissions further, you can grant the KSA user a role with cluster admin permissions in a similar manner.

```
ubuntu@Anthos-Admin-Workstation:~$ kubectl create clusterrolebinding netapp-user-admin
--clusterrole cluster-admin --serviceaccount default:netapp-user --kubeconfig anthos-
cluster01-kubeconfig
clusterrolebinding.rbac.authorization.k8s.io/netapp-user-admin created
```

6. With the KSA account created and assigned with correct permissions, you can create a bearer token to allow access with the GKE Console. To do so, set a system variable for the secret name, and pass that variable through a `kubectl` command to generate the token.

```
ubuntu@Anthos-Admin-Workstation:~$ SECRET_NAME=$(kubectl get serviceaccount netapp-
user --kubeconfig anthos-cluster01-kubeconfig -o jsonpath='{$.secrets[0].name}')
ubuntu@Anthos-Admin-Workstation:~$ kubectl get secret ${SECRET_NAME} --kubeconfig
anthos-cluster01-kubeconfig -o jsonpath='{$.data.token}' | base64 -d
eyJhbGciOiJSUzI1NiIsImtpZCI6IiJ9.eyJpc3MiOiJrdWJlcm5ldGVzL3NlcnZpY2VhY2NvdW50Iiwia3ViZ
XJuZXRlcy5pby9zZXJ2aWNlYWNjb3VudC9uYW1lc3BhY2UiOiJkZWZhdWx0Iiwia3ViZXJuZXRlcy5pby9zZXJ
2aWNlYWNjb3VudC9zZWNyZXQubmFtZSI6Im5ldGFwcC11c2VyLXRva2VuLWJxd3piIiwia3ViZXJuZXRlcy5pb
y9zZXJ2aWNlYWNjb3VudC9zZXJ2aWNlLWFjY291bnQubmFtZSI6Im5ldGFwcC11c2VyIiwia3ViZXJuZXRlcy5
pby9zZXJ2aWNlYWNjb3VudC9zZXJ2aWNlLWFjY291bnQudWlkIjoiNmIzZTFiZjQtMDE3NS0xMWVhLWEzMGUtN
mFiZmRlYjYwNDBmIiwic3ViIjoic3lzdGVtOnNlcnZpY2VhY2NvdW50OmRlZmF1bHQ6bmV0YXBwLXVzZXIifQ.
YrHn4kYlb3gwxVKCLyo7p6J1f7mwwIgZqNw9eTvIkt4PfyR4IJHxQwawnJ4T6RljIFcbVSQwvWI1yGuTJ98lAD
dcwtFXHoEfMcOa6SIn4OMVw1d5BGloaESn8150VCK3xES2DHAmLexFBqhVBgckZ0E4fZDvn4EhYvtFVpKlRbSy
aE-
DHD59P1bIgPdioiKREgbOddKdMn6XTVsuip4V4tVKhktcdRNRAuw6cFDY1fPol3BFHr2aNBIe6lFLkUqvQN-
9nMd63JGdHL4hfXu6PPDxc9By6LgOW0nyaH4__gexy4uIa61fNLKV2SKe4_gAN41ffOCKe4Tq8sa6zMo-8g
```

7. With this token, you can visit the Google Cloud Console and log in to the cluster by clicking the login button and pasting in the token.



1. After login is complete, you see a green check mark next to the cluster name, and information is displayed about the physical environment. Clicking the cluster name displays more verbose information.

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