



Hewlett Packard
Enterprise

Kubernetes host was removed from its Kubernetes cluster via "kubectl delete node <node name>", resulting in error "403 Forbidden"

Issue

Summary : On ERE 5.4.1 Add Kubernetes host failed. This was removed from its Kubernetes cluster via "kubecttl". The host was then removed from ERE by putting the host into an error state so that it could be deleted. Attempts to add/update/delete the Kubernetes cluster now result in errors "403 forbidden". The attached screen shots show the error.

Steps to reproduce the issue.

1. On the Kubernetes Master delete a node using "kubecttl", e.g.

```
kubecttl drain <node name> --ignore-daemonsets
```

```
kubecttl delete node <node name>
```

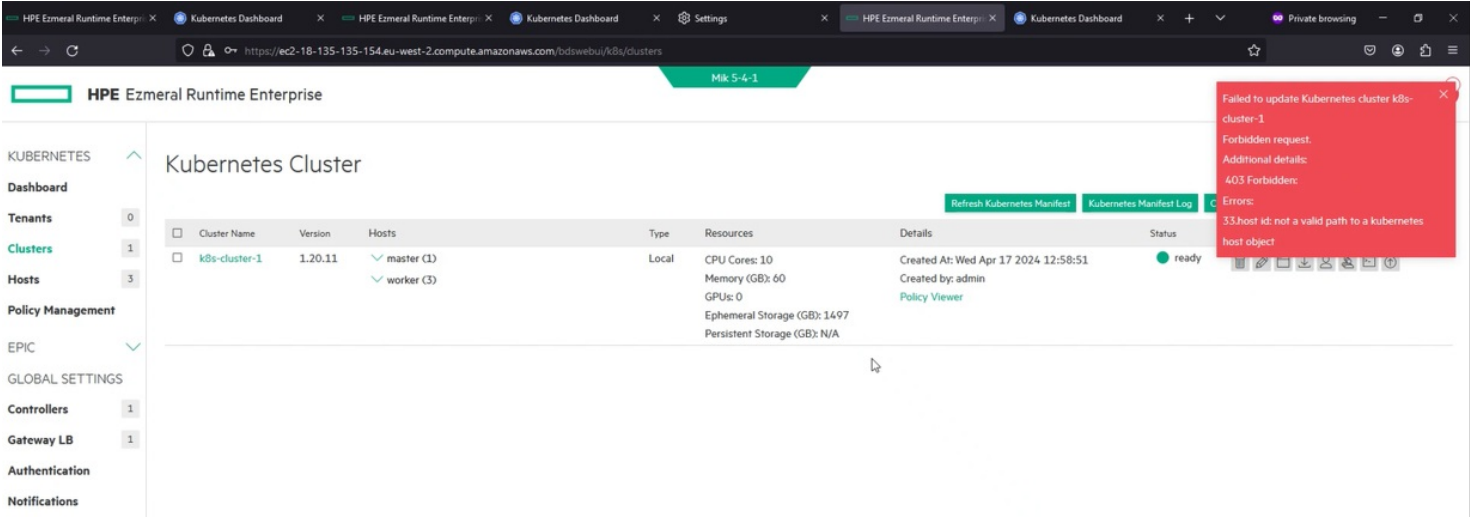
2. The native Kubernetes Dashboard can be used to verify the node is no longer a member of the Kubernetes cluster.

3. Conversely, the ERE Kubernetes Cluster UI can be used to verify the deleted node is still a member of the Kubernetes cluster, Due to dangling entries in erlang.

4. From the ERE Controller node, place the deleted Kubernetes node into an error state with the commands below. This action will allow the node to be deleted from the ERE Kubernetes Hosts list.

```
ERTS_PATH=/opt/bluedata/common-install/bd_mgmt/erts-*/bin
NODETOOL=$ERTS_PATH/../../bin/nodetool
NAME_ARG=`egrep '^-s?name' $ERTS_PATH/../../releases/1/vm.args`
RPCCMD="$ERTS_PATH/eshcript $NODETOOL $NAME_ARG rpcterms"
${RPCCMD} bd_mgmt_db_k8s set_host_status "'<hostid>". "error". undefined.'
```

5. Once the node is deleted from ERE, any attempts to edit/update/modify the Kubernetes cluster will result in following error "403 Forbidden".



6. Can no longer add/modify/delete Kubernetes cluster.

Environment

ERE 5.6.x or 5.4.x

Cause

Take Mnesia DB Dump and the following Entries is visible, from ERE Kubernetes cluster configuration .The deleted nodes got removed from ERE UI but the dangling entries exists (Host Id "33") in mnesia DB as follows.

Eg {bdm_k8s_host_config,"33","worker"}

```
[...],
{bdm_k8s_service,"9","5","api-master",[...],...},
[{bdm_k8s_host_config,"36","worker"},
{bdm_k8s_host_config,"33","worker"},
{bdm_k8s_host_config,"3","master"},
{bdm_k8s_host_config,"18","worker"}],
"/var/log/bluedata/install/k8scluster_setup-5-2024-4-17-11-58-51",
"..."}
```

Resolution

Execution of following erlang command helps in removing the dangling entries related to deleted kubernetes worker node "ID 33".

1. /opt/bluedata/common-install/bd_mgmt/bin/bd_mgmt attach

2. Read the DB objects for cluster ID 5 in Variable Myhost as follows.

```
(bd_mgmt@10.0.2.80)13> {ok,Myhost}=bd_util_db_generic:get_obj(bdm_k8s_host_cluster,"5").
```

3. Updating the Entries in Myhost Variable at field Position 18 and insert the Tuple of Already Existing Kubernetes Nodes .

```
(bd_mgmt@10.0.2.80)13> bd_util_db_generic:update_obj_field(Myhost, 18,[{bdm_k8s_host_config,"36","worker"},
{bdm_k8s_host_config,"3","master"},{bdm_k8s_host_config,"18","worker"}] ).
```