Platform health and logs

This section contains the following topics:

Platform health and logs

CWM is a microservice-based application that leverages Kubernetes cluster architecture as its runtime environment. The health of the CWM application can thus be checked using Kubernetes commands.

Note To see all the supported `kubectl` commands, log in to the OS on your VM and use `kubectl --help`.

Check pod status

Step 1 Using a command-line terminal, log in to the OS on your virtual machine with SSH:

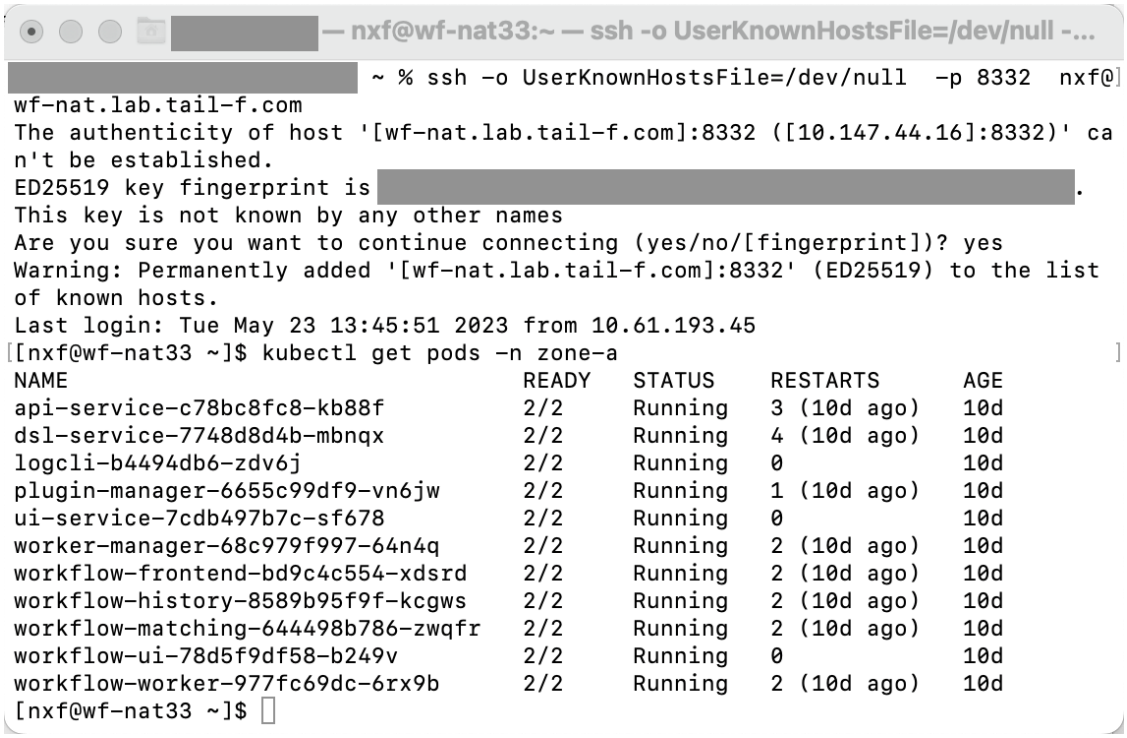
```
ssh -o UserKnownHostsFile=/dev/null  -p 22  nxf@<your_resource_pool_address>
```

Step 2 To check status of pods for namespace `zone-a` (this is the default namespace for pods contaning CWM microservices), run the following command:

```
kubectl get pods -n zone-a
```

Step 3 A list of pods will appear:

Figure 1: Get k8s pods



Step 4 If a pod has a status different from `Running`, you can 'restart' it using the following command:

```
kubectl delete pod <pod_name> -n zone-a
```

The pod will be deleted, but as Kubernetes configuration is declarative, it will effectively recreate the deleted pod and rerun it.

Check and collect logs

Application logs can be checked with **Loki logCLI** command-line interface. To gather logs from the CWM platform, follow these steps:

Step 1 Using a command-line terminal, connect to the system using SSH client:

```
ssh  -pSSH_PORT nxf@ip_address_of_deployment
```

Note Adjust `SSH_PORT` and `ip_address_of_deployment` accordingly.

Step 2 After successful login, use the command below to list all running pods:

```
kubectl get pods -A
```

Example result:

```
[nxf@wf-nat-08 ~]$ kubectl get pods -A
NAMESPACE            NAME                                        READY   STATUS      RESTARTS
AGE
```

```
kube-flannel          kube-flannel-ds-trr95                     1/1     Running     0
103m
kube-system           coredns-htg9j                             1/1     Running     0
103m
kube-system           etcd-wf-nat-08                            1/1     Running     0
103m
kube-system           kube-apiserver-wf-nat-08                  1/1     Running     0
103m
kube-system           kube-controller-manager-wf-nat-08         1/1     Running     0
103m
kube-system           kube-proxy-c25f5                          1/1     Running     0
103m
kube-system           kube-scheduler-wf-nat-08                  1/1     Running     0
103m
local-path-storage    local-path-provisioner-6fb6f599c7-ckcjc   1/1     Running     0
103m
nxf-system            authenticator-5db8885675-qlrmg            2/2     Running     0
102m
nxf-system            controller-cbd87f8c5-6tg6f                2/2     Running     1 (102m ago)
102m
nxf-system            ingress-proxy-56f7c9899d-6st6j            1/1     Running     0
102m
nxf-system            kafka-0                                   1/1     Running     0
102m
nxf-system            loki-7c994678f8-fnrs9                     3/3     Running     0
102m
nxf-system            minio-0                                   2/2     Running     0
103m
nxf-system            postgres-0                                2/2     Running     0
102m
nxf-system            promtail-v6tb4                            1/1     Running     0
102m
nxf-system            registry-7dd84db44f-n5q7h                 2/2     Running     0
102m
nxf-system            vip-wf-nat-08-28131000-772k5              0/1     Completed   0
3m42s
zone-a                api-service-745759bffc-v6r25              2/2     Running     2 (100m ago)
100m
zone-a                dsl-service-77d5fc96cc-5nv42              2/2     Running     3 (100m ago)
100m
zone-a                logcli-5c7ddbc95d-mkpcc                   2/2     Running     0
100m
zone-a                plugin-manager-665b7bbd4d-jvqdk           2/2     Running     1 (100m ago)
100m
zone-a                ui-service-57cf6d6bcc-smmvt               2/2     Running     0
100m
zone-a                worker-manager-6d6b445d46-r6nzk           2/2     Running     1 (99m ago)
100m
zone-a                workflow-frontend-77bc897549-kcz5k        2/2     Running     1 (99m ago)
100m
zone-a                workflow-history-58bdb85b8d-88t25         2/2     Running     1 (99m ago)
100m
zone-a                workflow-history-58bdb85b8d-h22bd         2/2     Running     1 (99m ago)
100m
zone-a                workflow-history-58bdb85b8d-ph5fh         2/2     Running     1 (99m ago)
100m
zone-a                workflow-matching-86cfc5577c-4mxhb        2/2     Running     1 (99m ago)
100m
zone-a                workflow-ui-68f857645-9mq9v               2/2     Running     0
100m
zone-a                workflow-worker-8496898f7b-wcrqs          2/2     Running     1 (99m ago)
100m
```

Step 3 Identify the logcli tool available in the `zone-a` namespace. In this example, it is the pod named `logcli-5c7ddbc95d-mkpcc`.

Step 4 Connect to the correct pod and list the available log labels for filtering:

```
kubectl exec --namespace=zone-a -ti logcli-5c7ddbc95d-mkpcc -- logcli labels
app
container
filename
level
namespace
node_name
pod
stream
```

Step 5 Gather logs from all applications running in the `zone-a` namespace and save them to a single file. Make sure to adjust the `--since` option to collect logs from the relevant time period when the troubleshooting event occurred:

```
kubectl exec --namespace=zone-a -ti logcli-5c7ddbc95d-mkpcc -- logcli query '{namespace="zone-a"}'
--since 60m > zone-a.log
```

Step 6 Similarly, collect logs from other namespaces, using different files for convenience:

```
kubectl exec --namespace=zone-a -ti logcli-5c7ddbc95d-mkpcc -- logcli query '{namespace="nxf-system"}'
 --since 60m > nxf-system.log
```

```
kubectl exec --namespace=zone-a -ti logcli-5c7ddbc95d-mkpcc -- logcli query '{namespace="kube-system"}'
 --since 60m > kube-system.log
```

Step 7 Use the SCP tool to copy the log files from the system to your desktop:

```
scp -P SSH_PORT nxf@ip_address_of_deployment:"*.log".
```

Step 8 Finally, you can send the logs to support and provide a detailed description of the issue you are experiencing.

Note For more details on the logCLI commands and usage, refer to logCLI Grafana documentation.