Standard Operating Procedure

*Finding Real Time Utilization of Pods*

## PURPOSE

The purpose of this standard operating procedure (SOP) is to provide a detailed step-by-step procedure to find real time utilization of pods.

## PROCEDURE

1. Go to the correct project:

oc project <project name>

i.e.

[svc-vxby-ose@master01-devtest-vxbyr ~]$ oc project api-dev1

Now using project "api-dev1" on server "https://ose-devtest-vxbyr.marriott.com:8443".

1. Look at the pods in the project and get the dc of the specific pod:

oc get pods

i.e.

[svc-vxby-ose@master01-devtest-vxbyr ~]$ oc get pods

NAME READY STATUS RESTARTS AGE

accounts-service-31-ykyc7 2/2 Running 0 6d

oc get dc | grep <pod prefix>

i.e.

[svc-vxby-ose@master01-devtest-vxbyr ~]$ oc get dc | grep accounts-service

accounts-service 31 1 1 config

1. Describe its dc:

oc describe dc <dc name>

i.e.

[svc-vxby-ose@master01-devtest-vxbyr ~]$ oc describe dc accounts-service

Name: accounts-service

Namespace: api-dev1

Created: 11 weeks ago

Labels: app=accounts-service

In this example, there two containers running with allocated space:

Containers:

accounts-service-proxy:

Image: dtr-556876752.us-east-1.elb.amazonaws.com/aad/api-proxy:latest

Ports: 8443/TCP, 8444/TCP, 8445/TCP

Limits:

cpu: 500m

memory: 512Mi

Requests:

cpu: 50m

memory: 100Mi

and

MUTUALAUTHS\_\_9007\_\_BACKEND: https://mstest.marriott.com:5070

SERVER\_NAME: accounts-api-dev1.ose-devtest-vxbyr.marriott.com

accounts-service:

Image: dtr-556876752.us-east-1.elb.amazonaws.com/apiplat/accounts-service:develop

Port: 9000/TCP

Limits:

cpu: 1

memory: 768Mi

Requests:

cpu: 50m

memory: 356Mi

1. Look for which node the pod resides in:

oc describe pods <pod name> | grep -i node

i.e.

[svc-vxby-ose@master01-devtest-vxbyr ~]$ oc describe pod accounts-service-31-ykyc7 | grep -i node

Node: node33-devtest-vxbyr.cloud.marriott.com/10.224.222.78

1. Get the images of the containers:

oc describe pods <pod name> | grep -i image

i.e.

[svc-vxby-ose@master01-devtest-vxbyr ~]$ oc describe pod accounts-service-31-ykyc7 | grep -i image

**Image: dtr-556876752.us-east-1.elb.amazonaws.com/aad/api-proxy:latest**

Image ID: docker-pullable://dtr-556876752.us-east-1.elb.amazonaws.com/aad/api-proxy@sha256:e8895ae2a87b0c0aeb95aaae81eb7a251ac02514baf1bffb20ec1c50456e5d81

**Image: dtr-556876752.us-east-1.elb.amazonaws.com/apiplat/accounts-service:develop**

Image ID: docker-pullable://dtr-556876752.us-east-1.elb.amazonaws.com/apiplat/accounts-service@sha256:19695da00b08968ae4d14706395d1783d608b940f0a71667015e5e43d936a37b

1. ssh into the node that the pod resides in:

ssh <node>

i.e.

[svc-vxby-ose@master01-devtest-vxbyr ~]$ ssh node33-devtest-vxbyr.cloud.marriott.com

Last login: Wed Jan 30 02:33:01 2019 from master01-devtest-vxbyr.marriott.com

1. For each container, get container id:

sudo docker ps | grep <image name>

i.e.

[svc-vxby-ose@node33-devtest-vxbyr ~]$ sudo docker ps | grep dtr-556876752.us-east-1.elb.amazonaws.com/aad/api-proxy:latest

**d86804dcff2e** dtr-556876752.us-east-1.elb.amazonaws.com/aad/api-proxy:latest "mi-tec -t /etc/nginx" 6 days ago Up 6 days k8s\_accounts-service-proxy.9d29866\_accounts-service-31-ykyc7\_api-dev1\_4347eb92-1f99-11e9-8345-005056844e4c\_86a7b159

Get stats of the container id, which shows the current utilization:

sudo docker stats <container id>

i.e.

[svc-vxby-ose@node33-devtest-vxbyr ~]$ sudo docker stats d86804dcff2e

CONTAINER CPU % MEM USAGE / LIMIT MEM % NET I/O BLOCK I/O

d86804dcff2e 0.00% 15.43 MB / 536.9 MB 2.87% 175.8 MB / 191.8 MB 15.74 MB / 843.8 kB

In this example, there are two containers, so here are the container id and stats for the second container:

[svc-vxby-ose@node33-devtest-vxbyr ~]$ sudo docker ps | grep dtr-556876752.us-east-1.elb.amazonaws.com/apiplat/accounts-service:develop

cb50dbc4a8f9 dtr-556876752.us-east-1.elb.amazonaws.com/apiplat/accounts-service:develop "bin/accounts-service" 6 days ago Up 6 days k8s\_accounts-service.649ada81\_accounts-service-31-ykyc7\_api-dev1\_4347eb92-1f99-11e9-8345-005056844e4c\_f6dd9288

[svc-vxby-ose@node33-devtest-vxbyr ~]$ sudo docker stats cb50dbc4a8f9

CONTAINER CPU % MEM USAGE / LIMIT MEM % NET I/O BLOCK I/O

cb50dbc4a8f9 0.57% 679.3 MB / 805.3 MB 84.35% 175.9 MB / 191.9 MB 90.12 MB / 4.096 kB

## VALIDATION

Follow the validation steps in “Procedure”.

**Document Version Control**

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Effective Date | Reviewed by | Approved by |
| 1.0 | 1/30/2019 | KyungIn Kim | Yashi Kumar |
|  |  |  |  |

Document Modification History & Revision Log

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Version | Date Modified | Revised by | Role | Section Affected | Reference | Remarks |
| 1.0 |  |  |  |  |  |  |
| 1.1 |  |  |  |  |  |  |