

OOM Component

Brian's cheatsheet for Helm commands: [K8S](#) / [helm](#) basic commands for ONAP integration

#git pull in OOM repo

git pull with submodule

```
Yangs-MacBook-Air:src yang$ git clone "https://gerrit.onap.org/r/oom"
Yangs-MacBook-Air:src yang$ cd oom
Yangs-MacBook-Air:oom yang$ git submodule update --init --recursive
Yangs-MacBook-Air:oom yang$ git pull
```

#find all unreleased ONAP images used by OOM charts

Unrelease image list in OOM

```
Yangs-MacBook-Air:oom yang$ find . -name 'values.yaml' -exec grep -Hn image {} \; | grep onap | grep image |
grep -E -i "staging|snapshot" | grep -v helm | sort
./kubernetes/aai/charts/aai-elasticsearch/values.yaml:22:image: onap/elasticsearch-sg:1.4-STAGING-latest
```

#ONAP installation from Windriver jumpserver. Git clone integration repo or pull the latest from repo first, then

ONAP Installation

```
xuyang11@pod-onap-01-vjhost:~$ cd integration/
xuyang11@pod-onap-01-vjhost:~/src/integration$ git pull
xuyang11@pod-onap-01-vjhost:~/src/integration$ source deployment/heat/onap-oom/env/windriver/Integration-SB-XX-
openrc
xuyang11@pod-onap-01-vjhost:~/src/integration$ cd deployment/heat/onap-oom
xuyang11@pod-onap-01-vjhost:~/src/integration/deployment/heat/onap-oom$ nohup ./scripts/deploy.sh -m docker-
manifest-staging.csv -q env/windriver/onap-oom.env &
or
xuyang11@pod-onap-01-vjhost:~/src/integration/deployment/heat/onap-oom$ nohup ./scripts/deploy.sh -m docker-
manifest.csv -q env/windriver/onap-oom.env &
```

#Update a project configuration or simply restart a project. For example, change GLOBAL_AAI_USERNAME parameter in integration_robot_properties.py

Update a project Chart

```
root@onap-oom-rancher:~# cd oom/kubernetes
root@onap-oom-rancher:~/oom/kubernetes# helm list -a
root@onap-oom-rancher:~/oom/kubernetes# helm delete dev-robot --purge
root@onap-oom-rancher:~/oom/kubernetes# ~/integration/deployment/heat/onap-oom/scripts/cleanup.sh
robot                #clean up any resource used by robot
root@onap-oom-rancher:~/oom/kubernetes# rm -rf /dockerdata-nfs/dev-
robot                #clean up the persistent data
root@onap-oom-rancher:~/oom/kubernetes# vi robot/resources/config/eteshare/config/integration_robot_properties.
py                #make change to charts
root@onap-oom-rancher:~/oom/kubernetes# make robot
root@onap-oom-rancher:~/oom/kubernetes# make onap
root@onap-oom-rancher:~/oom/kubernetes# helm deploy dev local/onap -f /root/oom/kubernetes/onap/resources
/environments/public-cloud.yaml -f /root/integration-override.yaml --namespace onap
```

#Undeploy the whole ONAP (not tested yet) - use 'kubectl -n onap get all' and then delete any dangling parts like below

Undeploy ONAP

```
root@rancher: helm undeploy dev --purge
root@rancher: kubectl -n onap get all
root@rancher: kubectl -n onap delete services --all
root@rancher: kubectl -n onap delete pv --all
root@rancher: kubectl -n onap delete pvc --all
root@rancher: kubectl -n onap delete secrets --all
root@rancher: kubectl -n onap delete clusterrolebinding --all
root@rancher: kubectl -n onap delete statefulsets --all
root@rancher: kubectl -n onap delete deployments --all
root@rancher: kubectl -n onap delete job --all
root@rancher: kubectl -n onap delete pods --all
root@rancher: kubectl -n onap get all
```

#Deploy and undeploy a chart. See [OOM Helm \(un\)Deploy plugins](#)

```
root@oom-rancher:~/oom/kubernetes# helm deploy dev-sdc local/onap --namespace onap -f /root/oom/kubernetes/onap
/resources/environments/public-cloud.yaml -f /root/integration-override.yaml --verbose
```

If it fails, try to delete the release, and deploy again

```
root@oom-rancher:~/oom/kubernetes# helm deploy dev-sdc local/onap --namespace onap -f /root/oom/kubernetes/onap
/resources/environments/public-cloud.yaml -f /root/integration-override.yaml --verbose
fetching local/onap
Error: UPGRADE FAILED: "dev-sdc" has no deployed releases
root@oom-rancher:~/oom/kubernetes# helm del dev-sdc --purge
release "dev-sdc" deleted
root@oom-rancher:~/oom/kubernetes# helm deploy dev-sdc local/onap --namespace onap -f /root/oom/kubernetes/onap
/resources/environments/public-cloud.yaml -f /root/integration-override.yaml --verbose
fetching local/onap
Release "dev-sdc" does not exist. Installing it now.
NAME: dev-sdc
```

#Another way to install one chart (deprecated due to memory size limit of configmap)

Install

```
root@oom-rancher:~/oom/kubenetes# helm delete --purge dev-sdc
root@oom-rancher:~/oom/kubenetes# helm install local/sdc --namespace onap --name dev-sdc -f /root/oom/kubernetes
/onap/resources/environments/public-cloud.yaml -f /root/integration-override.yaml
```

#Edit deployment. Very useful to change deployment parameters, like docker image version so you can pick a previous working docker image. K8S will restart the pod after the change is made

Helm edit

```
root@onap-oom-rancher:~# kubectl edit deploy -n onap dev-sdc-sdc-fe
```

#Edit statefulset. Sometimes image version is in statefulset, use describe pod command and search for Controlled by keyword. You need to bounce pod after change

```
root@oom-rancher:~/oom/kubernetes# kubectl -n onap edit statefulset dev-appc-appc
```

#Find AAI endpoint IP and port. IP can be ANY cluster node IP, and port is 30233

AAI Port

```
root@onap-oom-rancher:~/# kubectl -n onap get service |grep aai
aai NodePort 10.43.125.58 <none> 8080:30232/TCP,8443:30233/TCP 16h
aai-babel NodePort 10.43.148.198 <none> 9516:30279/TCP 16h
aai-cassandra ClusterIP None <none> 9042/TCP,9160/TCP,61621/TCP 16h
aai-champ NodePort 10.43.117.162 <none> 9522:30278/TCP 16h.
... ..
```

#List all pods

List pods

```
root@onap-oom-rancher:~/# kubectl -n onap get pods -o wide
NAME                                READY   STATUS             RESTARTS   AGE
IP                                 NODE
dep-config-binding-service-6f68756fb8-h572p    2/2     Running            0           7h
10.42.223.154   onap-oom-k8s-5
dev-aaf-cm-5455cfd7c8-lzkpm                    0/1     Init:1/2           0           9h
10.42.151.249   onap-oom-k8s-3
dev-aaf-cs-7586975b98-fvgrf                    0/1     ContainerCreating  0           9h
<none>         onap-oom-k8s-1
```

#Check container log. First find containers in the pod

logs

```
root@onap-oom-rancher:~/# kubectl -n onap get pods dev-aai-cassandra-0 -o jsonpath={.spec.containers[*].name}
aai-cassandra
root@onap-oom-rancher:~/# kubectl -n onap logs dev-aai-cassandra-0 aai-cassandra
```

#Restart a pod by deleting it and let Helm to restart one automatically

Restart pod by deleting it

```
root@onap-oom-rancher:~/oom/kubernetes/onap/charts# kubectl -n onap delete pod dev-portal-portal-cassandra-7b4dbd599b-vhl54
root@onap-oom-rancher:~/oom/kubernetes/onap/charts#
```

#Delete a pod with force

Delete a pod with force

```
root@oom-rancher:~/# kubectl -n onap delete --grace-period=0 --force pod dev-so-so-monitoring-c8cc74547-znnwx
```

#Enter pod shell

Shell

```
root@onap-oom-rancher:~# kubectl -n onap exec -it dev-aai-cassandra-0 /bin/bash
root@dev-aai-cassandra-0:/#
```

#Access ONAP portal. Get portal-app service private ip first, then go to Openstack Horizon to find public ip and update /etc/hosts with the public ip - see [Ma ndeep Khinda s https://onap.readthedocs.io/en/latest/submodules/oom.git/docs/oom_user_guide.html#accessing-the-onap-portal-using-oom-and-a-kubernetes-cluster](https://onap.readthedocs.io/en/latest/submodules/oom.git/docs/oom_user_guide.html#accessing-the-onap-portal-using-oom-and-a-kubernetes-cluster)

Portal Access

```
# Get portal-app service private ip
root@oom-rancher:~# kubectl -n onap get services |grep "portal-app"
portal-app LoadBalancer 10.43.138.237 10.0.0.10 8989:30215/TCP,8006:30213/TCP,8010:30214/TCP 16h
# Get public ip associated with the above private ip from Openstack
xuyang11@pod-onap-01-vjhost:~/Integration-SB-05$ source Integration-SB-05-openrc.sh
xuyang11@pod-onap-01-vjhost:~/Integration-SB-05$ openstack server list |grep 10.0.0.10
| b3ecfaac-4654-4b9f-ae33-41b296356384 | oom-k8s_1 | ACTIVE | oam_network_miim=10.0.0.10, 10.12.5.78 | ubuntu-16-04-cloud-amd64 |
# Update your local /etc/hosts
Yangs-MacBook-Air:Downloads yang$ cat /etc/hosts
10.12.5.78 portal.api.simplesdemo.onap.org
10.12.5.78 vid.api.simplesdemo.onap.org
10.12.5.78 sdc.api.fe.simplesdemo.onap.org
10.12.5.78 portal-sdk.simplesdemo.onap.org
10.12.5.78 policy.api.simplesdemo.onap.org
10.12.5.78 aai.api.sparky.simplesdemo.onap.org
10.12.5.78 cli.api.simplesdemo.onap.org
10.12.5.78 msb.api.discovery.simplesdemo.onap.org
# Use browser to access ONAP portal url http://portal.api.simplesdemo.onap.org:8989/ONAPPORTAL/login.htm
```

#Copy files to and from a pod

Copy

```
root@oom-rancher:~/oom/kubernetes/robot# kubectl -n onap cp values.yaml dev-robot-598bcc6695-4fsh7:
root@oom-rancher:~/oom/kubernetes/robot# kubectl -n onap cp dev-robot-598bcc6695-4fsh7:values.yaml /tmp/values.
yaml
```

#Execute a command remotely

```
root@oom-rancher:~/oom/kubernetes/robot# kubectl -n onap exec dev-robot-598bcc6695-4fsh7 -- ls -l
total 76
drwxr-xr-x 2 root root 4096 May 31 21:15 bin
drwxr-xr-x 2 root root 4096 Apr 24 08:34 boot
```

#ONAP Healthcheck from Rancher VM

Health

```
root@oom-rancher:~# cd oom/kubernetes/robot/
root@oom-rancher:~/oom/kubernetes/robot# ./ete-k8s.sh onap health
```

#Get the pod configMap

```
root@oom-rancher:~# kubectl -n onap get configMap dev-so-so-sdc-controller-app-configmap -o yaml
apiVersion: v1
data:
  override.yaml: |
    # Copyright © 2018 AT&T USA
    #
    # Licensed under the Apache License, Version 2.0 (the "License");
    # you may not use this file except in compliance with the License.
    # You may obtain a copy of the License at
    #
    # http://www.apache.org/licenses/LICENSE-2.0
    #
    # Unless required by applicable law or agreed to in writing, software
    # distributed under the License is distributed on an "AS IS" BASIS,
    # WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
    # See the License for the specific language governing permissions and
    # limitations under the License.
  aai:
    auth: 2630606608347B7124C244AB0FE34F6F
    server:
      port: 8085
    spring:
      security:
        usercredentials:
          -
            username: asdc
            password: '$2a$10$Fh9ffgPw2vnmsgHsRD3ZauBL1aKXebigbq3BB1RPWtE62UDILsjke'
            role: Asdc-Client
          -
            username: mso_admin
            password: '$2a$10$Fh9ffgPw2vnmsgHsRD3ZauBL1aKXebigbq3BB1RPWtE62UDILsjke'
            role: ACTUATOR
        mso:
          msoKey: 07a7159d3bf51a0e53be7a8f89699be7
          logPath: ./logs/sdc
        catalog:
          db:
            spring:
              endpoint: http://so-catalog-db-adapter.onap:8082
            db:
              auth: Basic YnBlbDpwYXNzd29yZDEk
              site-name: onapheat
          aai:
            endpoint: https://aai.onap:8443
          asdc-connections:
            asdc-controller1:
              user: mso
              consumerGroup: sdc-OpenSource-Env1
              consumerId: sdc-COpenSource-Env11
              environmentName: AUTO
              asdcAddress: sdc-be.onap:8443
              password: 613AF3483E695524F9857643B697FA51C7A9A0951094F53791485BF3458F9EADA37DBACCCEBD0CB242B85B4062745247
              pollingInterval: 60
              pollingTimeout: 60
              relevantArtifactTypes: HEAT,HEAT_ENV,HEAT_VOL
              activateServerTLSAuth: false
              keyStorePassword:
              keyStorePath:
              watchDogTimeout: 300
              isFitlerInEmptyResources: true
          ... ..
```

#Edit ConfigMap - e.g. chaning user name or password. Then you need to delete the pod and let k8s restart the pod to take the new values

```
root@oom-rancher:~# kubectl -n onap edit configmap dev-so-so-bpmn-infra-app-configmap

## Edit something in the config
## Delete Pod and let kubernetes respawn with new config
root@oom-rancher:~# kubectl -n onap delete pod dev-so-so-bpmn-infra-5887f8c6c8-jkk7c
```

#Add a NodePort for debug/dev purposes

```
## Replace service name below
root@oom-rancher:~# kubectl patch svc -n onap so-openstack-adapter --type='json' -p '[{"op":"replace","path":"/spec/type","value":"NodePort"}]'

## get nodeport assigned by kubernetes
root@oom-rancher:~# kubectl -n onap get service | grep so-openstack-adapter
```

so-openstack-adapter	NodePort	10.43.105.9	<none>	8087:32715/TCP
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#Generate encrypted openstack password

```
>echo -n <tenant_password>| openssl aes-128-ecb -e -K aa3871669d893c7fb8abbcd31b88b4f -nosalt | xxd -c 256 -p
```