**[Advanced Deployment with Red Hat OpenShift - Homework](https://training-lms.redhat.com/lmt/clmsCourseDetails.prMain?in_sessionId=4A0851A3919559JJ&in_offeringId=40361819&in_selfContained=&in_from_module=CLMSLEARNINGPATHS.PRMAIN~CLMSLEARNINGPATHDETAILS.PRMAIN&in_filter=%26in_status%3DI%26in_rows%3D50%26in_from_module%3DCLMSLEARNINGPATHS.PRMAIN&in_filter_2=&in_lp_id=40359570)**

* **Version of RHOCP supported by the inventory** **file**: 3.11.51
* **Instructor** : Vino Alex
* **Class Location** :  [Bangalore - Capgemini 172, EPIP Zone Whitefield Rd, Phase 2, Brookefield, Bengaluru, Karnataka 560066, India](https://www.google.com/maps/search/?api=1&query=12.9727003,77.7182958)
* **Class date** : 25 March 2019 to 29 March 2019

**Ansible Inventory File**

#

# ansible inventory for OpenShift Container Platform 3.11.51

# AgnosticD ansible-config: ocp-ha-lab

[OSEv3:vars]

###########################################################################

### Ansible Vars

###########################################################################

timeout=60

ansible\_user=ec2-user

ansible\_become=yes

###########################################################################

### OpenShift Basic Vars

###########################################################################

openshift\_deployment\_type=openshift-enterprise

openshift\_disable\_check="disk\_availability,memory\_availability,docker\_image\_availability"

# OpenShift Version:

# If you modify the openshift\_image\_tag or the openshift\_pkg\_version variables after the cluster is set up, then an upgrade can be triggered, resulting in downtime.

# If openshift\_image\_tag is set, its value is used for all hosts in system container environments, even those that have another version installed. If

# Use this variable to specify a container image tag to install or configure.

#openshift\_pkg\_version is set, its value is used for all hosts in RPM-based environments, even those that have another version installed.

openshift\_image\_tag=v3.11.51

# Use this variable to specify an RPM version to install or configure.

openshift\_pkg\_version=-3.11.51

openshift\_release=3.11.51

# Node Groups

openshift\_node\_groups=[{'name': 'node-config-master', 'labels': ['node-role.kubernetes.io/master=true','runtime=docker']}, {'name': 'node-config-infra', 'labels': ['node-role.kubernetes.io/infra=true','runtime=docker']}, {'name': 'node-config-compute', 'labels': ['node-role.kubernetes.io/compute=true','runtime=docker'], 'edits': [{ 'key': 'kubeletArguments.pods-per-core','value': ['20']}]}]

# Configure node kubelet arguments. pods-per-core is valid in OpenShift Origin 1.3 or OpenShift Container Platform 3.3 and later. -> These need to go into the above

# openshift\_node\_kubelet\_args={'pods-per-core': ['10'], 'max-pods': ['250'], 'image-gc-high-threshold': ['85'], 'image-gc-low-threshold': ['75']}

# Configure logrotate scripts

# See: https://github.com/nickhammond/ansible-logrotate

logrotate\_scripts=[{"name": "syslog", "path": "/var/log/cron\n/var/log/maillog\n/var/log/messages\n/var/log/secure\n/var/log/spooler\n", "options": ["daily", "rotate 7","size 500M", "compress", "sharedscripts", "missingok"], "scripts": {"postrotate": "/bin/kill -HUP `cat /var/run/syslogd.pid 2> /dev/null` 2> /dev/null || true"}}]

# Deploy Operator Lifecycle Manager Tech Preview

openshift\_enable\_olm=true

###########################################################################

### OpenShift Registries Locations

###########################################################################

#oreg\_url=registry.access.redhat.com/openshift3/ose-${component}:${version}

oreg\_url=registry.redhat.io/openshift3/ose-${component}:${version}

oreg\_auth\_user=10955089|hyd1

oreg\_auth\_password=eyJhbGciOiJSUzUxMiJ9.eyJzdWIiOiI1YjBhNmYwZjUxZDE0Yjg3YTMwNmU1YjQ4MjFiNTE3NSJ9.MqKR21lOx8NpXEETrqtI5bitVU2FmF7sCq7Dshk84eJkjnbYv5Knky13LdS1F5pf2Mi2GD4sNr6bm0kIhG5cBf6TU\_YQGiCApVkH\_IJCuK-aTDJQXc46oBkRu3up0tI\_0blqwm\_wP419ls\_JFiQ7Q84s9nXWslZq5oDi\_spjFqhOfevr6N\_Kp4ERHGZ0HB\_37xqL2XRPBp8-GoLAh3JsTHNqbEErwV2aegKVuux9oE5wSzVUsitiWrs0Oj1i2cGacnkqfjR6KO2V5I4CmatvF6gSM-T2qUYuYpIfqu3u5MyLedC-ttBJy-Fla-7TE2zfyFXAKBZb7GZNj4bTDsXKVjZXDRDmWpvjuwJY7wXp00S469o8MvYd-t2QHbGu9F4toRpKhtrgjnkOvGfRZCYC0OP4BLlHIA0I2LH6v3AGw-qbxnq59HBXMhXcJ-UYPh5FV4So8BvxoeOTu6mzBMD9sNxh62bk9s\_93Wte-mxCI72lVJtV8oS\_smmvoZX8835zUnIvu-IlkTiTH-SuA7g\_mAE56hCzXlGnsjjebrwVGS3frJyF6roM6kMZn32a3UC2qC86RGJtjAKPE43dN37rr6HLyEymxTAtW7pOTXatxUrUwHYqkV1evwJOWGAbLwvW2ow-khsdOMJj4qvvXghVaTdufu4qIffKPnlrLDtf\_8M

# For Operator Framework Images

openshift\_additional\_registry\_credentials=[{'host':'registry.connect.redhat.com','user':'10955089|hyd1','password':'eyJhbGciOiJSUzUxMiJ9.eyJzdWIiOiI1YjBhNmYwZjUxZDE0Yjg3YTMwNmU1YjQ4MjFiNTE3NSJ9.MqKR21lOx8NpXEETrqtI5bitVU2FmF7sCq7Dshk84eJkjnbYv5Knky13LdS1F5pf2Mi2GD4sNr6bm0kIhG5cBf6TU\_YQGiCApVkH\_IJCuK-aTDJQXc46oBkRu3up0tI\_0blqwm\_wP419ls\_JFiQ7Q84s9nXWslZq5oDi\_spjFqhOfevr6N\_Kp4ERHGZ0HB\_37xqL2XRPBp8-GoLAh3JsTHNqbEErwV2aegKVuux9oE5wSzVUsitiWrs0Oj1i2cGacnkqfjR6KO2V5I4CmatvF6gSM-T2qUYuYpIfqu3u5MyLedC-ttBJy-Fla-7TE2zfyFXAKBZb7GZNj4bTDsXKVjZXDRDmWpvjuwJY7wXp00S469o8MvYd-t2QHbGu9F4toRpKhtrgjnkOvGfRZCYC0OP4BLlHIA0I2LH6v3AGw-qbxnq59HBXMhXcJ-UYPh5FV4So8BvxoeOTu6mzBMD9sNxh62bk9s\_93Wte-mxCI72lVJtV8oS\_smmvoZX8835zUnIvu-IlkTiTH-SuA7g\_mAE56hCzXlGnsjjebrwVGS3frJyF6roM6kMZn32a3UC2qC86RGJtjAKPE43dN37rr6HLyEymxTAtW7pOTXatxUrUwHYqkV1evwJOWGAbLwvW2ow-khsdOMJj4qvvXghVaTdufu4qIffKPnlrLDtf\_8M','test\_image':'mongodb/enterprise-operator:0.3.2'}]

openshift\_examples\_modify\_imagestreams=true

# Set this line to enable NFS

openshift\_enable\_unsupported\_configurations=True

###########################################################################

### OpenShift Master Vars

###########################################################################

openshift\_master\_api\_port=443

openshift\_master\_console\_port=443

#Default: openshift\_master\_cluster\_method=native

openshift\_master\_cluster\_hostname=loadbalancer.dffc.internal

openshift\_master\_cluster\_public\_hostname=loadbalancer.dffc.example.opentlc.com

openshift\_master\_default\_subdomain=apps.dffc.example.opentlc.com

#openshift\_master\_ca\_certificate={'certfile': '/root/intermediate\_ca.crt', 'keyfile': '/root/intermediate\_ca.key'}

openshift\_master\_overwrite\_named\_certificates=True

# Audit log

# openshift\_master\_audit\_config={"enabled": true, "auditFilePath": "/var/log/openpaas-oscp-audit/openpaas-oscp-audit.log", "maximumFileRetentionDays": 14, "maximumFileSizeMegabytes": 500, "maximumRetainedFiles": 5}

# ocp-ha-lab

# AWS Autoscaler

#openshift\_master\_bootstrap\_auto\_approve=false

# This variable is a cluster identifier unique to the AWS Availability Zone. Using this avoids potential issues in Amazon Web Services (AWS) with multiple zones or multiple clusters.

#openshift\_clusterid

###########################################################################

### OpenShift Network Vars

###########################################################################

osm\_cluster\_network\_cidr=10.1.0.0/16

openshift\_portal\_net=172.30.0.0/16

os\_sdn\_network\_plugin\_name='redhat/openshift-ovs-networkpolicy'

#os\_sdn\_network\_plugin\_name='redhat/openshift-ovs-multitenant'

#os\_sdn\_network\_plugin\_name='redhat/openshift-ovs-subnet'

###########################################################################

### OpenShift Authentication Vars

###########################################################################

# LDAP AND HTPASSWD Authentication (download ipa-ca.crt first)

# openshift\_master\_identity\_providers=[{'name': 'ldap', 'challenge': 'true', 'login': 'true', 'kind': 'LDAPPasswordIdentityProvider','attributes': {'id': ['dn'], 'email': ['mail'], 'name': ['cn'], 'preferredUsername': ['uid']}, 'bindDN': 'uid=admin,cn=users,cn=accounts,dc=shared,dc=example,dc=opentlc,dc=com', 'bindPassword': 'r3dh4t1!', 'ca': '/etc/origin/master/ipa-ca.crt','insecure': 'false', 'url': 'ldaps://ipa.shared.example.opentlc.com:636/cn=users,cn=accounts,dc=shared,dc=example,dc=opentlc,dc=com?uid?sub?(memberOf=cn=ocp-users,cn=groups,cn=accounts,dc=shared,dc=example,dc=opentlc,dc=com)'},{'name': 'htpasswd\_auth', 'login': 'true', 'challenge': 'true', 'kind': 'HTPasswdPasswordIdentityProvider'}]

# Just LDAP

openshift\_master\_identity\_providers=[{'name': 'ldap', 'challenge': 'true', 'login': 'true', 'kind': 'LDAPPasswordIdentityProvider','attributes': {'id': ['dn'], 'email': ['mail'], 'name': ['cn'], 'preferredUsername': ['uid']}, 'bindDN': 'uid=admin,cn=users,cn=accounts,dc=shared,dc=example,dc=opentlc,dc=com', 'bindPassword': 'r3dh4t1!', 'ca': '/etc/origin/master/ipa-ca.crt','insecure': 'false', 'url': 'ldaps://ipa.shared.example.opentlc.com:636/cn=users,cn=accounts,dc=shared,dc=example,dc=opentlc,dc=com?uid?sub?(memberOf=cn=ocp-users,cn=groups,cn=accounts,dc=shared,dc=example,dc=opentlc,dc=com)'}]

# Just HTPASSWD

# openshift\_master\_identity\_providers=[{'name': 'htpasswd\_auth', 'login': 'true', 'challenge': 'true', 'kind': 'HTPasswdPasswordIdentityProvider'}]

# LDAP and HTPASSWD dependencies

openshift\_master\_htpasswd\_file=/root/htpasswd.openshift

openshift\_master\_ldap\_ca\_file=/root/ipa-ca.crt

###########################################################################

### OpenShift Metrics and Logging Vars

###########################################################################

#########################

# Prometheus Metrics

#########################

openshift\_hosted\_prometheus\_deploy=true

openshift\_prometheus\_namespace=openshift-metrics

openshift\_prometheus\_node\_selector={"node-role.kubernetes.io/infra":"true"}

openshift\_cluster\_monitoring\_operator\_install=true

########################

# Cluster Metrics

########################

openshift\_metrics\_install\_metrics=True

openshift\_metrics\_storage\_kind=nfs

openshift\_metrics\_storage\_access\_modes=['ReadWriteOnce']

openshift\_metrics\_storage\_nfs\_directory=/srv/nfs

openshift\_metrics\_storage\_nfs\_options='\*(rw,root\_squash)'

openshift\_metrics\_storage\_volume\_name=metrics

openshift\_metrics\_storage\_volume\_size=10Gi

openshift\_metrics\_storage\_labels={'storage': 'metrics'}

openshift\_metrics\_cassandra\_pvc\_storage\_class\_name=''

openshift\_metrics\_hawkular\_nodeselector={"node-role.kubernetes.io/infra": "true"}

openshift\_metrics\_cassandra\_nodeselector={"node-role.kubernetes.io/infra": "true"}

openshift\_metrics\_heapster\_nodeselector={"node-role.kubernetes.io/infra": "true"}

# Store Metrics for 2 days

openshift\_metrics\_duration=2

# Suggested Quotas and limits for Prometheus components:

openshift\_prometheus\_memory\_requests=2Gi

openshift\_prometheus\_cpu\_requests=750m

openshift\_prometheus\_memory\_limit=2Gi

openshift\_prometheus\_cpu\_limit=750m

openshift\_prometheus\_alertmanager\_memory\_requests=300Mi

openshift\_prometheus\_alertmanager\_cpu\_requests=200m

openshift\_prometheus\_alertmanager\_memory\_limit=300Mi

openshift\_prometheus\_alertmanager\_cpu\_limit=200m

openshift\_prometheus\_alertbuffer\_memory\_requests=300Mi

openshift\_prometheus\_alertbuffer\_cpu\_requests=200m

openshift\_prometheus\_alertbuffer\_memory\_limit=300Mi

openshift\_prometheus\_alertbuffer\_cpu\_limit=200m

# Grafana

openshift\_grafana\_node\_selector={"node-role.kubernetes.io/infra":"true"}

openshift\_grafana\_storage\_type=pvc

openshift\_grafana\_pvc\_size=2Gi

openshift\_grafana\_node\_exporter=true

########################

# Cluster Logging

########################

openshift\_logging\_install\_logging=True

openshift\_logging\_install\_eventrouter=True

openshift\_logging\_storage\_kind=nfs

openshift\_logging\_storage\_access\_modes=['ReadWriteOnce']

openshift\_logging\_storage\_nfs\_directory=/srv/nfs

openshift\_logging\_storage\_nfs\_options='\*(rw,root\_squash)'

openshift\_logging\_storage\_volume\_name=logging

openshift\_logging\_storage\_volume\_size=10Gi

openshift\_logging\_storage\_labels={'storage': 'logging'}

openshift\_logging\_es\_pvc\_storage\_class\_name=''

openshift\_logging\_es\_memory\_limit=8Gi

openshift\_logging\_es\_cluster\_size=1

openshift\_logging\_curator\_default\_days=2

openshift\_logging\_kibana\_nodeselector={"node-role.kubernetes.io/infra": "true"}

openshift\_logging\_curator\_nodeselector={"node-role.kubernetes.io/infra": "true"}

openshift\_logging\_es\_nodeselector={"node-role.kubernetes.io/infra": "true"}

openshift\_logging\_eventrouter\_nodeselector={"node-role.kubernetes.io/infra": "true"}

###########################################################################

### OpenShift Router and Registry Vars

###########################################################################

# default selectors for router and registry services

# openshift\_router\_selector='node-role.kubernetes.io/infra=true'

# openshift\_registry\_selector='node-role.kubernetes.io/infra=true'

openshift\_hosted\_router\_replicas=2

# openshift\_hosted\_router\_certificate={"certfile": "/path/to/router.crt", "keyfile": "/path/to/router.key", "cafile": "/path/to/router-ca.crt"}

openshift\_hosted\_registry\_replicas=1

openshift\_hosted\_registry\_pullthrough=true

openshift\_hosted\_registry\_acceptschema2=true

openshift\_hosted\_registry\_enforcequota=true

openshift\_hosted\_registry\_storage\_kind=nfs

openshift\_hosted\_registry\_storage\_access\_modes=['ReadWriteMany']

openshift\_hosted\_registry\_storage\_nfs\_directory=/srv/nfs

openshift\_hosted\_registry\_storage\_nfs\_options='\*(rw,root\_squash)'

openshift\_hosted\_registry\_storage\_volume\_name=registry

openshift\_hosted\_registry\_storage\_volume\_size=20Gi

###########################################################################

### OpenShift Service Catalog Vars

###########################################################################

# default=true

openshift\_enable\_service\_catalog=true

# default=true

template\_service\_broker\_install=true

openshift\_template\_service\_broker\_namespaces=['openshift']

# default=true

ansible\_service\_broker\_install=true

ansible\_service\_broker\_local\_registry\_whitelist=['.\*-apb$']

###########################################################################

### OpenShift Hosts

###########################################################################

# openshift\_node\_labels DEPRECATED

# openshift\_node\_problem\_detector\_install

[OSEv3:children]

lb

masters

etcd

nodes

nfs

[lb]

loadbalancer.dffc.internal

[masters]

master1.dffc.internal

master2.dffc.internal

master3.dffc.internal

[etcd]

master1.dffc.internal

master2.dffc.internal

master3.dffc.internal

[nodes]

## These are the masters

master1.dffc.internal openshift\_node\_group\_name='node-config-master' openshift\_node\_problem\_detector\_install=true

master2.dffc.internal openshift\_node\_group\_name='node-config-master' openshift\_node\_problem\_detector\_install=true

master3.dffc.internal openshift\_node\_group\_name='node-config-master' openshift\_node\_problem\_detector\_install=true

## These are infranodes

infranode1.dffc.internal openshift\_node\_group\_name='node-config-infra' openshift\_node\_problem\_detector\_install=true

infranode2.dffc.internal openshift\_node\_group\_name='node-config-infra' openshift\_node\_problem\_detector\_install=true

## These are regular nodes

node1.dffc.internal openshift\_node\_group\_name='node-config-compute' openshift\_node\_problem\_detector\_install=true

node2.dffc.internal openshift\_node\_group\_name='node-config-compute' openshift\_node\_problem\_detector\_install=true

node3.dffc.internal openshift\_node\_group\_name='node-config-compute' openshift\_node\_problem\_detector\_install=true

[nfs]

support1.dffc.internal