DCAC DR Upgrade

Highlevel timeline

Step	Time	Ansible step /Manual	Status
Vulm Removal	20 mins	ansible-playbook vuln.yml -e "env=drdcac"	Completed
Pre upgrade steps	10 mins	ansible-playbook pre_upgrade_dcac.yml -e "env=drdcac"	Completed
MultiMaster setup		Manual	

RUNBOOK
OLCNE upgrade from 1.3 to 1.6

UPGRADE Steps

Upgrade Steps	Total Estimate	Stage	SME	Comment	Task Status
Staging yum.conf,proxy.conf,auth.conf, enviornment,profile	10 min	Pre-Step	Sudhesh /Leo	No outage	
Setup passwordless ssh from Master/Ansible host	10 min	Pre-Step	Sudhesh /Leo	No outage	
Fix Pending Vulnerabilities using ansible	30 Min	Pre-Step	Sudhesh /Leo	No outage	
Branch Code change on SEK build to accommodate API version change in Kubernetes			Gopi	No outage/ Recent change in the Kubernetes version require API Version changes on the K8s manifest of all the application build of SEK	
Build the code an push the image to GCS dev			Gopi	No outage. Changes have to be built and pushed to the GCS dev Docker registry prior to deployment to save time and prevent unexpected build failure issues	
Backup SEK manifest	10 min	Pre-Step	Gopi	No outage	
Backup Olcne 1.3 Module	10 min	Pre-Step	Sudhesh /Leo	No outage	
Total Estimated time for Pre-task	**70 min**				
Splash page for Sek	5 min			Outage	
Scale down UAW/DCAC	10 min	Post-Step	Sudhesh /Leo	Outage	
OLCNE pre_upgrade from 1.3 to 1.6 using ansible	45 min	Post-Step	Sudhesh /Leo	Outage	
Kernel Upgrade/Jan Patch Set VM DOM0	90 min	Post-Step	Deepak	Outage	

Install OLCNE 1.6 module	1 hr	Post-Step	Sudhesh /Leo	Outage	
Troubleshooting	30 min	Post-Step	Sudhesh /Leo	Outage	
Install Istio/Metrics server/NFS provisioner	5 min	Post-Step	Sudhesh /Leo	Outage	
Install PV,PVC & Virtual Service for DB/UAW /DCAC Services	15 min	Post-Step	Gopi	Outage	
Deploying DB/UAW/DCAC Services	30 min	Post-Step	Gopi	Outage	
Validating SEK Services	10 min	Post-Step	Gopi	No outage	
Total Estimated time for Post-task	**5 hrs**				

Create backup of below files

/etc/profile

/etc/environment

/etc/systemd/system/crio.service.d/proxy.conf

SCALE DOWN

DB scale down

kubectl scale sts database --replicas=1 -n database-dr
kubectl get sts -n database-dr
kubectl logs database-0 -n database-dr

UAW PODS

kubectl scale --replicas=1 deploy dxfpluginservice-deployment -n uaw-dr
kubectl scale --replicas=1 deploy dxfpluginstaticservice-deployment -n uaw-dr
kubectl scale --replicas=1 deploy zookeeper-deployment -n uaw-dr
kubectl scale --replicas=1 deploy kafka-deployment -n uaw-dr
kubectl scale --replicas=1 deploy podcontrollerservice-deployment -n uaw-dr
kubectl scale --replicas=1 deploy poirotinterface-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawauditservice-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawcollectionprep-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawcollectionprepstatic-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawmessagemonitor-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawparserservice-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawparserstaticservice-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawreportingservice-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawvalidatesrservice-deployment -n uaw-dr
kubectl scale --replicas=1 deploy uawmessageprocessservice-deployment -n uaw-dr

DCAC PODS

```
kubectl scale --replicas=1 deploy dcacannotation-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacauth-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacbrokerservice-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacclickstreamservice-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcaccollectorservice-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcaclargefiletransform-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacmosservice-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacmosservice-deployment-for-collector -n dcac-dr
kubectl scale --replicas=1 deploy dcacoit-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacpersistenceservice-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacpurgenotificationservice-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacredis-deployment -n dcac-dr
kubectl scale --replicas=1 deploy dcacuiservice-deployment -n dcac-dr
kubectl scale --replicas=1 deploy uawauthservice-deployment -n dcac-dr
```

Delete Environemtn and module (From api-server)

```
olcnectl module uninstall --api-server idmomv3200.us.oracle.com:8091 --environment-name myenvironment --name
mycluster
olcnectl environment delete --api-server idmomv3200.us.oracle.com:8091 --environment-name myenvironment
```

Running pre_upgrade steps via ansible

> *cd /scripts_repo_prod/esps-central-scripts/application/DCAC/UAT*
>
> *syntax:*
>
> *syntax : ansible-playbook pre_upgrade_dcac.yml -e "env=drdcac"*

```
- name: Pre upgrade dcac
   hosts: "{{ env }}"
   gather_facts: false
   user: root
   tasks:
    - name: update proxy
      ansible.builtin.shell: |
        sed -i 's/dmz-proxy-adcq7.us.oracle.com/dmz-proxy-sjc.oraclecorp.com/g' /etc/yum.conf
    - name: copy multiple items
        copy:
          src: "{{ item.src }}"
          dest: "{{ item.dest }}"
        loop:
          - src: 10-auth.conf_A
            dest: /etc/systemd/system/olcne-agent.service.d/10-auth.conf
          - src: 10-auth.conf_S
            dest: /etc/systemd/system/olcne-api-server.service.d/10-auth.conf
          - src: proxy.conf
            dest: /etc/systemd/system/crio.service.d/proxy.conf
          - src: environment
            dest: /etc/environment
          - src: profile
            dest: /etc/profile
      register: result
    - debug:
       var: result
    - name: yum remove all olcne packages
        yum:
          name: olcne*
          state: absent
      register: result
    - debug:
       var: result
```

```
    - name: Remove file (delete file)
      ansible.builtin.file:
        path: "{{ item }}"
        state: absent
      with_items:
    - /etc/olcne
    - /root/.olcne
    - /var/olcne/
      register: result
    - debug:
       var: result
    - name: Reset Kubeadm
      ansible.builtin.shell: kubeadm reset -f
      register: result
    - debug:
       var: result
    - name: Unconditionally reboot the machine with all defaults
      ansible.builtin.reboot:
      register: result
    - debug:
       var: result
    - name: install oracle-olcne-release-el7
      ansible.builtin.shell: yum reinstall -y oracle-olcne-release-el7
      register: result
    - debug:
       var: result
    - name: disable ol7_olcne14
      ansible.builtin.shell: yum-config-manager --disable ol7_olcne15 ol7_olcne14 ol7_olcne13 ol7_olcne12
ol7_olcne11 ol7_olcne ol7_developer
    - name: enable ol7_olcne16
      ansible.builtin.shell: yum-config-manager --enable ol7_olcne16
    - name: List olcne packages and register result to print with debug later
      ansible.builtin.shell: rpm -qa |grep olcne
      register: result
    - debug:
        var: result
    - name: Container registary connectivitycheck
      ansible.builtin.shell: crictl pull container-registry.oracle.com/olcne/nginx:1.17.7
      register: result
    - debug:
       var: result
    - name: Install the latest version of olcnectl
      ansible.builtin.yum:
       name: olcnectl
       state: latest
      register: result
    - debug:
       var: result
    - name: Create a directory /etc/olcne if it does not exist
      ansible.builtin.file:
        path: /etc/olcne
        state: directory
        mode: '0755'
    - name: Create a directory /etc/olcne/certificates/ with olcne:olcne if it does not exist
      ansible.builtin.file:
        path: /etc/olcne/certificates/
        state: directory
        owner: olcne
        group: olcne
        mode: '0755'
```

DR Provision Script

```
olcnectl provision --api-server idmomv3200.us.oracle.com --control-plane-nodes idmomv3200.us.oracle.com,
idmomv3201.us.oracle.com,idmomv3202.us.oracle.com  --worker-nodes idmomv3203.us.oracle.com,idmomv3204.us.oracle.
com,idmomv3205.us.oracle.com,idmomv3206.us.oracle.com,idmomv3207.us.oracle.com,idmomv3208.us.oracle.com,
idmomv3209.us.oracle.com,idmomv3210.us.oracle.com,idmomv3211.us.oracle.com,idmomv3212.us.oracle.com,idmomv3213.
us.oracle.com,idmomv3214.us.oracle.com,idmomv3215.us.oracle.com,idmomv3216.us.oracle.com,idmomv3217.us.oracle.
com --environment-name myenvironment --name mycluster --virtual-ip 10.218.156.101
```

UAT Provision script

```
olcnectl provision --api-server pnmomv0314.us.oracle.com --control-plane-nodes pnmomv0314.us.oracle.com,
pnmomv0315.us.oracle.com,pnmomv0316.us.oracle.com --worker-nodes pnmomv0309.us.oracle.com,pnmomv0310.us.oracle.
com,pnmomv0311.us.oracle.com,pnmomv0312.us.oracle.com,pnmomv0313.us.oracle.com,pnmomv6437.us.oracle.com,
pnmomv6438.us.oracle.com,pnmomv6439.us.oracle.com,pnmomv6440.us.oracle.com,pnmomv6441.us.oracle.com,pnmomv6442.
us.oracle.com,pnmomv6443.us.oracle.com,pnmomv6445.us.oracle.com,pnmomv6446.us.oracle.com,pnmomv6449.us.oracle.
com --environment-name myenvironment --name mycluster --virtual-ip 10.218.31.13
```

Deployment files (Operations)

/root/sek/uaw/pvpvc/final

pvc.yaml
sr-uaw-pv_old.yaml
sr-uaw-pvc.yaml
sr-isde-pvc.yaml
sr-dcac-pvc.yaml
isde-pvc.yaml
dwl-isde-pvc.yaml
sr-dcac-pv.yaml
sr-uaw-pv.yaml
sr-uaw-pv_noclone.yaml
sr-dcac-pv_nocloe.yaml
isde-pv-dcac.yaml
sr-isde-pv.yaml
dwl-isde-pv-dcac.yaml

cd sek_setup/

sek_uaw_pv.yaml
pvc-uaw-dr.yaml
vs.yaml
gateway.yaml
dcac-dr-hpa.yaml
uaw--hpa.yaml
dcac-dr-deployment.yaml
uaw-dr-deployment.yaml
database-dr.yaml
nfs-client-provisioner.yaml
pvc-dcac-dr.yaml_bk
pvc-dcac-dr.yaml

```
cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
echo 'export KUBECONFIG=$HOME/.kube/config' >> $HOME/.bashrc
kubectl get nodes
kubectl get pods -n kube-system
kubectl get cm -n kube-system
kubectl edit cm kube-proxy -n kube-system
kubectl edit deployment -n istio-system
kubectl get deployment -n istio
kubectl edit deployment -n istio-system
kubectl get pods -n istio-system
cd sek_backup/
kubectl create -f gateway.yaml -n istio-system
cd ..
cd sek_setup/

kubectl create -f vs.yaml
kubectl create ns dcac-dr
kubectl create ns uaw-dr
kubectl create -f vs.yaml
kubectl create serviceaccount podcontroller --namespace uaw-dr
kubectl create serviceaccount deploy-svc-dcac -n dcac-dr
kubectl create clusterrolebinding podcontroller --clusterrole=cluster-admin --serviceaccount=uaw-dr:
podcontroller -n uaw-dr
kubectl create clusterrolebinding deploy-svc-account --clusterrole=cluster-admin --serviceaccount=uaw-dr:deploy-
svc-account -n uaw-dr
kubectl create clusterrolebinding deploy-svc-dcac --clusterrole=cluster-admin --serviceaccount=dcac-dr:deploy-
svc-dcac -n dcac-dr
kubectl create rolebinding deployRoleBinding --clusterrole=edit --serviceaccount=uaw-dr:deploy-svc-account  --
namespace=uaw-dr
kubectl create rolebinding deployRoleBinding --clusterrole=edit --serviceaccount=dcac-dr:deploy-svc-account  --
namespace=dcac-dr
cd ..
cd ./sek/uaw/pvpvc/final/
kubectl apply -f sr-uaw-pv_noclone.yaml
kubectl apply -f sr-uaw-pvc.yaml -n uaw-dr
kubectl get pv
kubectl get pvc --all-namespaces
kubectl apply -f sr-dcac-pv_nocloe.yaml
kubectl apply -f sr-dcac-pvc.yaml -n dcac-dr
kubectl apply -f sr-isde-pv.yaml
kubectl apply -f sr-isde-pvc.yaml -n uaw-dr
kubectl apply -f isde-pv-dcac.yaml
kubectl apply -f isde-pvc.yaml -n dcac-dr
kubectl apply -f dwl-isde-pv-dcac.yaml
kubectl apply -f dwl-isde-pvc.yaml -n dcac-dr
kubectl apply -f elk-pv-uaw.yaml -n uaw-dr
cd ..

kubectl apply -f ./uaw/pvpvc/elk-pv-uaw.yaml
cd uaw/pvpvc/
kubectl apply -f elk-pv-dcac.yaml -n dcac-dr
kubectl apply -f keystore-pv-pvc.yaml -n uaw-dr
kubectl apply -f zookeeper-kafka-pv-pvc.yml -n uaw-dr
kubectl apply -f keystore-pvc.yaml -n dcac-dr
kubectl get pvc --all-namespaces
kubectl get gateway -n istio-system
```

ERROR and FIX

Encountered errors with idmomv3204.us.oracle.com:8090
  Could not get state for node-name: connection error: desc = "transport: authentication handshake failed: tls: failed to verify certificate: x509: certificate signed by unknown authority (possibly because of \"crypto/rsa: verification error\" while trying to verify candidate authority certificate \"OLCNE\")"