VDDK Image Build and Push for SNO OCP – Internal image-registry

Objective:

Build a VDDK container image and push it to the internal OpenShift registry (SNO setup) for use in MTV (Migration Toolkit for Virtualization).

Steps:

1. In a browser, navigate to the VMware VDDK version 8 download page
2. Select version 8.0.1 and click Download.
3. Save the VDDK archive file in the temporary directory.
4. Extract the VDDK archive: in a temporary directory.

1. Extracted VDDK tarball:

  - Unzipped the provided `vddk` tar file on the SNO node.

```
[core@00-50-56-bc-5c-3d ~]$ tar -xvzf VMware-vix-disklib-8.0.1-21562716.x86_64.tar.gz
vmware-vix-disklib-distrib/
vmware-vix-disklib-distrib/lib32/
vmware-vix-disklib-distrib/bin64/
vmware-vix-disklib-distrib/include/
vmware-vix-disklib-distrib/doc/
vmware-vix-disklib-distrib/lib64/
```

2. Identified internal OpenShift registry service:

  - Verified using:

    oc get service image-registry -n openshift-image-registry

```
[root@sno-ocpv-bastion ~]# oc get service image-registry -n openshift-image-registry
NAME            TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)    AGE
image-registry  ClusterIP   172.30.191.72   <none>        5000/TCP   21d
```

3. Logged in to internal registry from SNO node:

   podman login --tls-verify=false -u kubeadmin -p $(oc whoami -t) image-registry.openshift-image-registry.svc:5000

```
[core@00-50-56-bc-5c-3d ~]$ podman login --tls-verify=false -u kubeadmin -p $TOKEN image-registry.openshift-image-registry.svc:5000
Login Succeeded!
```

4. Built the VDDK image using podman:

   podman build -t image-registry.openshift-image-registry.svc:5000/mtv/vddk:latest .

```
[core@00-50-56-bc-5c-3d ~]$ podman build -t image-registry.openshift-image-registry.svc:5000/openshift-mtv/vddk:latest .
STEP 1/5: FROM registry.access.redhat.com/ubi8/ubi-minimal
Trying to pull registry.access.redhat.com/ubi8/ubi-minimal:latest...
Getting image source signatures
Checking if image destination supports signatures
Copying blob b28025c60582 done   |
Copying config e300881fd5 done    |
Writing manifest to image destination
Storing signatures
STEP 2/5: USER 1001
--> 8054557c429d
STEP 3/5: COPY vmware-vix-disklib-distrib /vmware-vix-disklib-distrib
--> 5f9eaadd6a29
STEP 4/5: RUN mkdir -p /opt
--> a03ecb4a4792
STEP 5/5: ENTRYPOINT ["cp", "-r", "/vmware-vix-disklib-distrib", "/opt"]
COMMIT image-registry.openshift-image-registry.svc:5000/openshift-mtv/vddk:latest
--> 2672323ef1c3
Successfully tagged image-registry.openshift-image-registry.svc:5000/openshift-mtv/vddk:latest
2672323ef1c3de256af2811021a33931df163d327312c59fa378ae60254588dd
```

5. Pushed the image to OpenShift internal registry:

   podman push --tls-verify=false image-registry.openshift-image-registry.svc:5000/mtv/vddk:latest

```
[core@00-50-56-bc-5c-3d ~]$ podman push image-registry.openshift-image-registry.svc:5000/openshift-mtv/vddk:latest
Getting image source signatures
Copying blob 34b94ca2306e done   |
Copying blob a7027951f5c9 done   |
Copying blob 0ca050f8b440 done   |
Copying config 2672323ef1 done   |
Writing manifest to image destination
[core@00-50-56-bc-5c-3d ~]$ podman login --tls-verify=false -u kubeadmin -p $TOKEN image-registry.openshift-image-registry.svc:5000
Login Succeeded!
[core@00-50-56-bc-5c-3d ~]$
```

6. Configured the image path in MTV GUI:

   - Used:

     image-registry.openshift-image-registry.svc:5000/mtv/vddk:latest
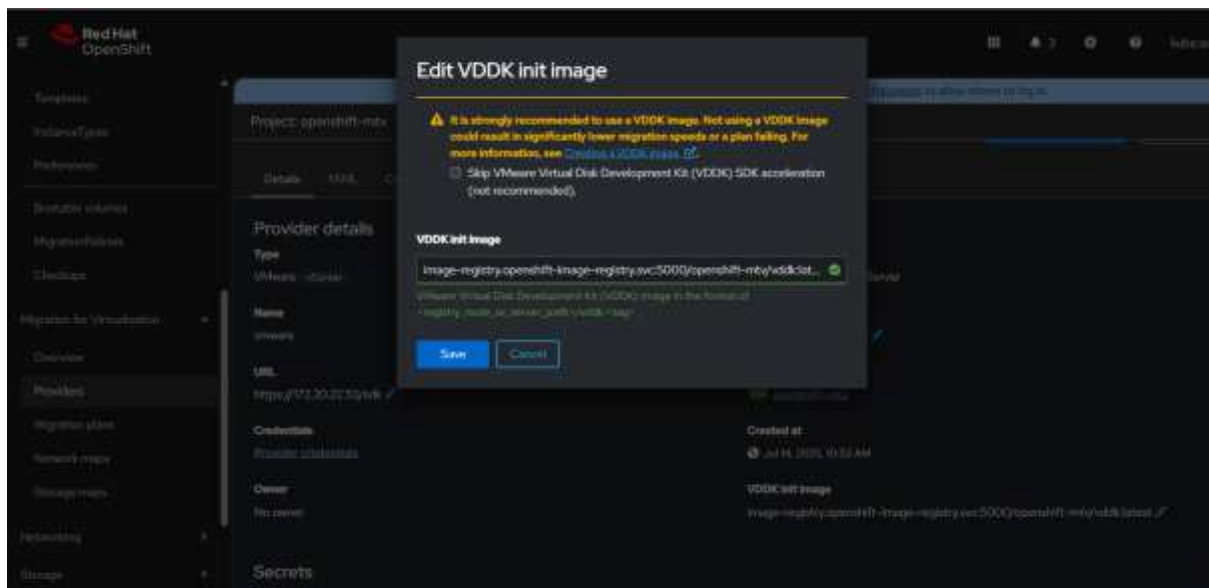
Notes:

1. DNS Resolution Failure from Bastion:

  - Error: no such host

  - Cause: Bastion node could not resolve internal service DNS (not part of cluster network).

  - Fix: Switched to running all steps directly on the SNO node.

2. Missing token for oc whoami -t:

  - On SNO node, no valid kubeconfig was present under core user.

  - Fix: Used manual token login or ensured kubeconfig availability.

3. Hanging podman login from Bastion:

  - Reason: Could not reach the registry service from outside the cluster.

  - Fix: Ran podman login from within the SNO node.

☑ Final VDDK Image Path Used:

image-registry.openshift-image-registry.svc:5000/mtv/vddk:latest