**Lab 08 Install and Configure Cinder**

**Step 1: Create a cinder user**

# openstack user create --domain default --password service\_pass cinder

**Step 2: Add the admin role to the cinder user**

# openstack role add --project service --user cinder admin

**Step 3: Create the cinder service entity**

# openstack service create --name cinderv2 --description "OpenStack Block Storage" volumev2

**Step 4: Create the Block Storage service API endpoints**

# openstack endpoint create --region RegionOne volumev2 public [http://192.168.0.120:8776/v2/%\(project\_id\)s](http://192.168.0.120:8776/v2/%25\(project_id\)s)

# openstack endpoint create --region RegionOne volumev2 internal [http://10.10.100.121:8776/v2/%\(project\_id\)s](http://10.10.100.121:8776/v2/%25\(project_id\)s)

# openstack endpoint create --region RegionOne volumev2 admin http://10.10.100.121:8776/v2/%\(project\_id\)s

**Step 5: Create the cinderv3 service entity**

# openstack service create --name cinderv3 --description "OpenStack Block Storage" volumev3

**Step 6: Create the Block Storage service API endpoints**

# openstack endpoint create --region RegionOne volumev3 public [http://192.168.0.120:8776/v3/%\(project\_id\)s](http://192.168.0.120:8776/v3/%25\(project_id\)s)

# openstack endpoint create --region RegionOne volumev3 internal [http://10.10.100.121:8776/v3/%\(project\_id\)s](http://10.10.100.121:8776/v3/%25\(project_id\)s)

# openstack endpoint create --region RegionOne volumev3 admin [http://10.10.100.121:8776/v3/%\(project\_id\)s](http://10.10.100.121:8776/v3/%25\(project_id\)s)

**Step 7:** **Install Cinder Components**

# yum install -y openstack-cinder lvm2 targetcli device-mapper-persistent-data python-keystone

**Step 8:** **Login to database**

# mysql -u root -p

# CREATE DATABASE cinder;

GRANT ALL ON cinder.\* TO 'cinderUser'@'%' IDENTIFIED BY 'cinderPass';

quit;

**Step 9:** **Edit /etc/cinder/cinder.conf**

# vim /etc/cinder/cinder.conf

**[Default]**

my\_ip = 10.10.100.121

auth\_strategy = keystone

enabled\_backends = lvm

glance\_api\_servers = http://10.10.100.121:9292

transport\_url = rabbit://openstack:rabbit@10.10.100.121

**[database]**

connection = mysql+pymysql://cinderUser:cinderPass@10.10.100.121/cinder

**[keystone\_authtoken]**

auth\_uri = http://10.10.100.121:5000

auth\_url = http://10.10.100.121:5000

memcached\_servers = 10.10.100.121:11211

auth\_type = password

project\_domain\_name = default

user\_domain\_name = default

project\_name = service

username = cinder

password = service\_pass

**[oslo\_concurrency]**

lock\_path = /var/lib/cinder/tmp

**Note: [lvm] section is not there ,Copy and paste the whole [lvm] section below oslo\_concurrency**

**[lvm]**

volume\_driver = cinder.volume.drivers.lvm.LVMVolumeDriver

volume\_group = cinder-volumes

iscsi\_protocol = iscsi

iscsi\_helper = lioadm

**Step 10:** **Synchronize Database**

# su -s /bin/sh -c "cinder-manage db sync" cinder

**Step 11:** **Create Physical volume**

# pvcreate /dev/sdb

**Step 12:** **Create Volume group**

# vgcreate cinder-volumes /dev/sdb

**Step 13:** **Start the cinder-volume service including its dependencies and configure them to start when the system boots**

# systemctl enable openstack-cinder-volume.service target.service openstack-cinder-api.service openstack-cinder-scheduler.service openstack-cinder-backup.service

# systemctl start openstack-cinder-volume.service target.service openstack-cinder-api.service openstack-cinder-scheduler.service openstack-cinder-backup.service

**Step 14: Check openstack volume service list**

# openstack volume service list