

Install OpenSDS on Redhat 7.5

install dependency lib.

```
yum install librados2-devel
yum install librbd1-devel
```

download etcd

```
wget https://github.com/etcd-io/etcd/releases/download/v3.3.9/etcd-v3.3.9-linux-amd64.tar.gz
cp etcd-v3.3.9-linux-amd64/etcd* /usr/local/bin/
```

download opensds binnary file

```
wget https://github.com/opensds/opensds/releases/download/v0.3.0/opensds-hotpot-v0.3.0-linux-amd64.tar.gz
tar xvf opensds-hotpot-v0.3.0-linux-amd64.tar.gz
cp opensds-hotpot-v0.3.0-linux-amd64/bin/* /usr/local/bin
```

create cinder lvm backend volume group

vi create_vg.sh

```
#!/bin/bash
function _create_lvm_volume_group {
    local vg=$1
    local size=$2

    local backing_file=/opt/opensds/cinder/cinder-volume.img
    mkdir /opt/opensds/cinder/ -p
    if ! sudo vgs $vg &> /dev/null ; then
        # Only create if the file doesn't already exists
        [[ -f $backing_file ]] || truncate -s $size $backing_file
        local vg_dev
        vg_dev=`sudo losetup -f --show $backing_file`

        # Only create physical volume if it doesn't already exist
        if ! sudo pvs $vg_dev; then
            sudo pvcreate $vg_dev
        fi

        # Only create volume group if it doesn't already exist
        if ! sudo vgs $vg; then
```

```

        sudo vgcreate $vg $vg_dev
    fi
fi
}
modprobe dm_thin_pool
_create_lvm_volume_group opensds-volumes 10G
run command blow to create volume group

chmod +x create_vg.sh
./create_vg.sh
run command vsg to check if volume group is created successfully.

```

add config file

```
mkdir -p /etc/opensds/driver vi /etc/opensds/opensds.conf
```

```

[osdslet]
api_endpoint = 0.0.0.0:50040
graceful = True
log_file = /var/log/opensds/osdslet.log
socket_order = inc
auth_strategy = noauth

[osdsdock]
api_endpoint = 8.46.187.141:50050
log_file = /var/log/opensds/osdsdock.log
# Choose the type of dock resource, only support 'provisioner' and 'attacher'.
dock_type = provisioner
# Specify which backends should be enabled, sample,ceph,cinder,lvm and so on.
enabled_backends = lvm

[database]
endpoint = 8.46.187.141:2479,8.46.187.141:2480
driver = etcd

[lvm]
name = lvm backend 2
description = This is a lvm backend service
driver_name = lvm
config_path = /etc/opensds/driver/lvm.yaml
vi /etc/opensds/driver/lvm.yaml

tgtBindIp: 8.46.187.141 # change tgtBindIp to your real host ip, run 'ifconfig' to check
tgtConfDir: /etc/tgt/conf.d
pool:

```

```
opensds-volumes: # change pool name same to vg_name, but don't change it if you choose ceph
backend
  storageType: block
  availabilityZone: default
  extras:
    dataStorage:
      provisioningPolicy: Thin
      isSpaceEfficient: false
    ioConnectivity:
      accessProtocol: iscsi
      maxIOPS: 7000000
      maxBWS: 600
  advanced:
    diskType: SSD
    latency: 5ms
```

startup service

```
mkdir /opt/opensds/etc/ -p
nohup etcd --advertise-client-urls http://8.46.187.141:2479 --listen-client-urls
http://8.46.187.141:2479 --listen-peer-urls http://8.46.187.141:2480 --data-dir
/opt/opensds/etc/data --debug &
osdslet --daemon
osdsdock --daemon
```

Testing

```
export OPENSDDS_ENDPOINT=http://127.0.0.1:50040
export OPENSDDS_AUTH_STRATEGY=keystone
osdsctl profile create '{ "name": "default", "description": "default policy", "extra": {} }'
osdsctl volume create 1 -n vol001
```