

Docker 单机安装 ceph

作者: [sigeisment](#)

原文链接: <https://ld246.com/article/1623307899491>

来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)



Docker 安装 ceph

[原文](#)

安装

1. 创建 Ceph 专用网络

```
sudo docker network create --driver bridge --subnet 172.20.0.0/16 ceph-network
```

2. 拉取搭建用镜像

```
sudo docker pull ceph/daemon:latest-luminous
```

3. 搭建 mon 节点

```
sudo docker run -d --name ceph-mon --network ceph-network --ip 172.20.0.10 -e CLUSTER=ceph -e WEIGHT=1.0 -e MON_IP=172.20.0.10 -e MON_NAME=ceph-mon -e CEPH_PUBLIC_NETWORK=172.20.0.0/16 -v /etc/ceph:/etc/ceph -v /var/lib/ceph:/var/lib/ceph -v /var/log/ceph:/var/log/ceph ceph/daemon:latest-luminous mon
```

4. 搭建 osd 节点

```
sudo docker exec ceph-mon ceph auth get client.bootstrap-osd -o /var/lib/ceph/bootstrap-osd/ceph.keyring
```

修改配置文件以兼容 etx4 硬盘

```
sudo vi /etc/ceph/ceph.conf
```

在文件最后添加：

osd max object name len = 256
osd max object namespace len = 64

分别启动三个容器来模拟集群

```
sudo docker run -d --privileged=true --name ceph-osd-1 --network ceph-network --ip 172.20.0.11 -e CLUSTER=ceph -e WEIGHT=1.0 -e MON_NAME=ceph-mon -e MON_IP=172.20.0.10 -e OSD_TYPE=directory -v /etc/ceph:/etc/ceph -v /var/lib/ceph:/var/lib/ceph/ -v /var/lib/ceph/old1:/var/lib/ceph/osd -v /etc/localtime:/etc/localtime:ro ceph/daemon:latest-luminous osd
sudo docker run -d --privileged=true --name ceph-osd-2 --network ceph-network --ip 172.20.0.12 -e CLUSTER=ceph -e WEIGHT=1.0 -e MON_NAME=ceph-mon -e MON_IP=172.20.0.10 -e OSD_TYPE=directory -v /etc/ceph:/etc/ceph -v /var/lib/ceph:/var/lib/ceph/ -v /var/lib/ceph/old2:/var/lib/ceph/osd -v /etc/localtime:/etc/localtime:ro ceph/daemon:latest-luminous osd
sudo docker run -d --privileged=true --name ceph-osd-3 --network ceph-network --ip 172.20.0.13 -e CLUSTER=ceph -e WEIGHT=1.0 -e MON_NAME=ceph-mon -e MON_IP=172.20.0.10 -e OSD_TYPE=directory -v /etc/ceph:/etc/ceph -v /var/lib/ceph:/var/lib/ceph/ -v /var/lib/ceph/old3:/var/lib/ceph/osd -v /etc/localtime:/etc/localtime:ro ceph/daemon:latest-luminous osd
```

5. 搭建 mgr 节点

```
sudo docker run -d --privileged=true --name ceph-mgr --network ceph-network --ip 172.20.0.14 -e CLUSTER=ceph -p 7000:7000 --pid=container:ceph-mon -v /etc/ceph:/etc/ceph -v /var/lib/ceph:/var/lib/ceph/ ceph/daemon:latest-luminous mgr
```

开启管理界面

```
sudo docker exec ceph-mgr ceph mgr module enable dashboard
```

6. 搭建 rgw 节点

```
sudo docker exec ceph-mon ceph auth get client.bootstrap-rgw -o /var/lib/ceph/bootstrap-rw/ceph.keyring
sudo docker run -d --privileged=true --name ceph-rgw --network ceph-network --ip 172.20.0.15 -e CLUSTER=ceph -e RGW_NAME=ceph-rgw -p 7480:7480 -v /var/lib/ceph:/var/lib/ceph/ -v /etc/ceph:/etc/ceph -v /etc/localtime:/etc/localtime:ro ceph/daemon:latest-luminous rgw
```

7. 检查 Ceph 状态

```
sudo docker exec ceph-mon ceph -s
```

8. 测试添加 rgw 用户

```
sudo docker exec ceph-rgw radosgw-admin user create --uid="test" --display-name="test user"
```

执行结果

```
{
  "user_id": "test",
  "display_name": "test user",
  "email": "",
  "suspended": 0,
  "max_buckets": 1000,
  "auid": 0,
  "subusers": [],
```

```
"keys": [
  {
    "user": "test",
    "access_key": "8FLKX5K6GN2TXELKRCSV",
    "secret_key": "5bXtvUwG2odDseyAzbWOkmCBdHTnGgjTPn7MqPO7"
  }
],
"swift_keys": [],
"caps": [],
"op_mask": "read, write, delete",
"default_placement": "",
"placement_tags": [],
"bucket_quota": {
  "enabled": false,
  "check_on_raw": false,
  "max_size": -1,
  "max_size_kb": 0,
  "max_objects": -1
},
"user_quota": {
  "enabled": false,
  "check_on_raw": false,
  "max_size": -1,
  "max_size_kb": 0,
  "max_objects": -1
},
"temp_url_keys": [],
"type": "rgw"
}
```

注意

1. OSD节点少了时rgw节点会报初始化失败
2. 各个容器的时区是否一致