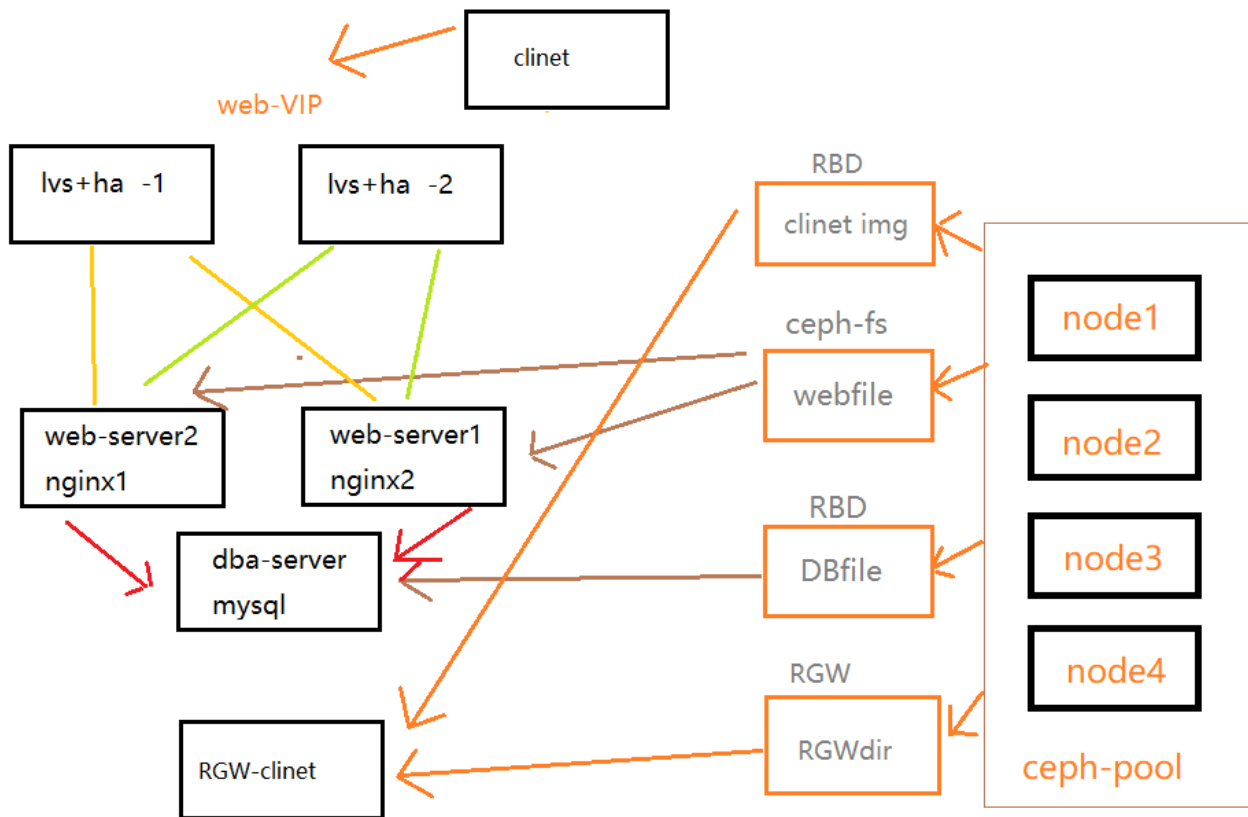


集群项目-lvs/ha/ceph

此项目主要是为锻炼综合技术为主，与实际生产环境项目有一定的区别；

项目ip规划如下：

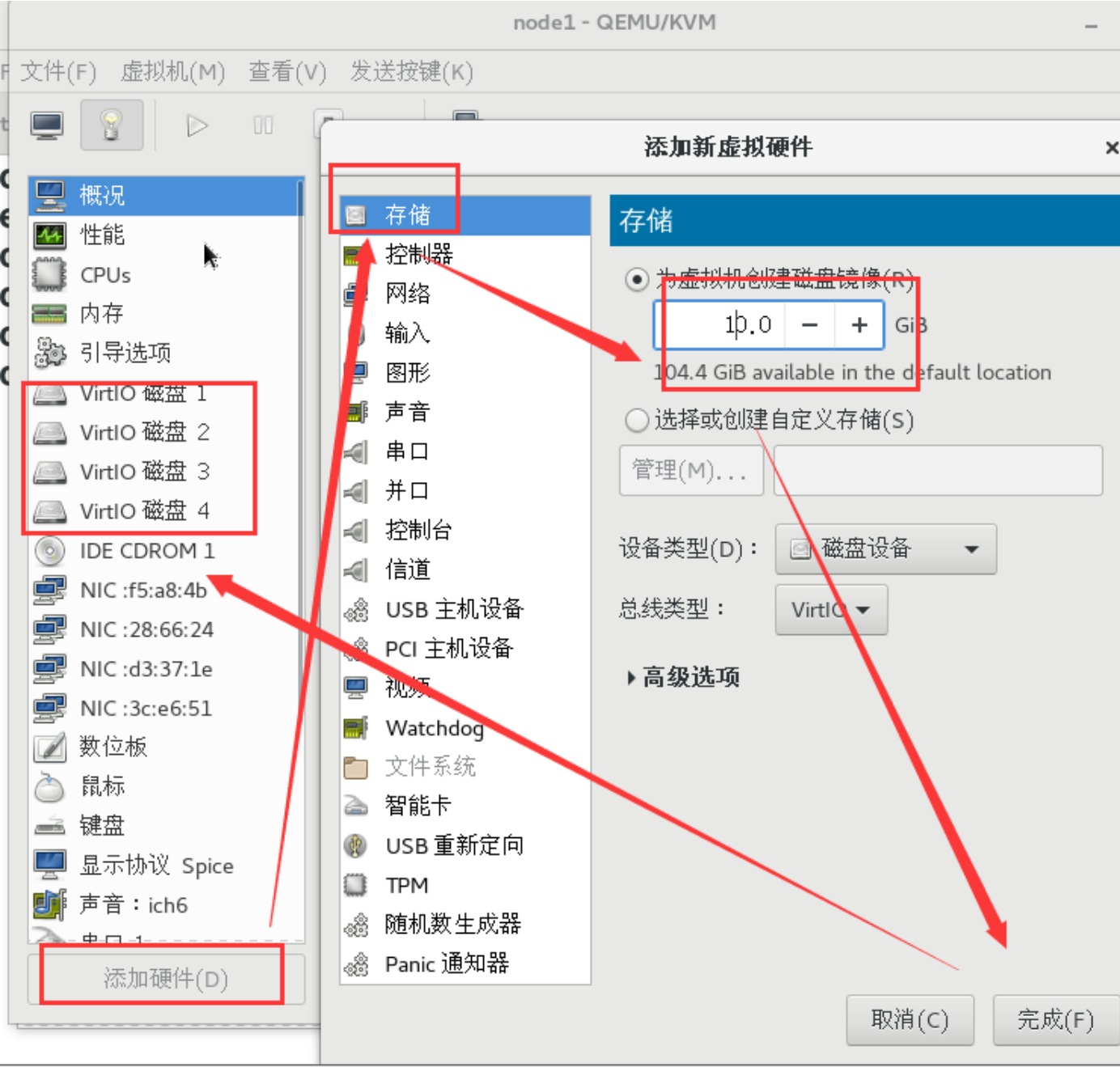
- 1、web-VIP:201.1.2.200，lvs_ha-1:192.168.4.254，lvs_ha-2:192.168.4.253。
 - 2、web-server1:192.168.4.100，web-server2:192.168.4.101，dba-server:192.168.4.50。
 - 3、clinet:201.1.2.100，RGW-clinet:192.168.4.201。
 - 4、node1-node5:192.168.4.1-5。
- node4为MDS, node5为RGW

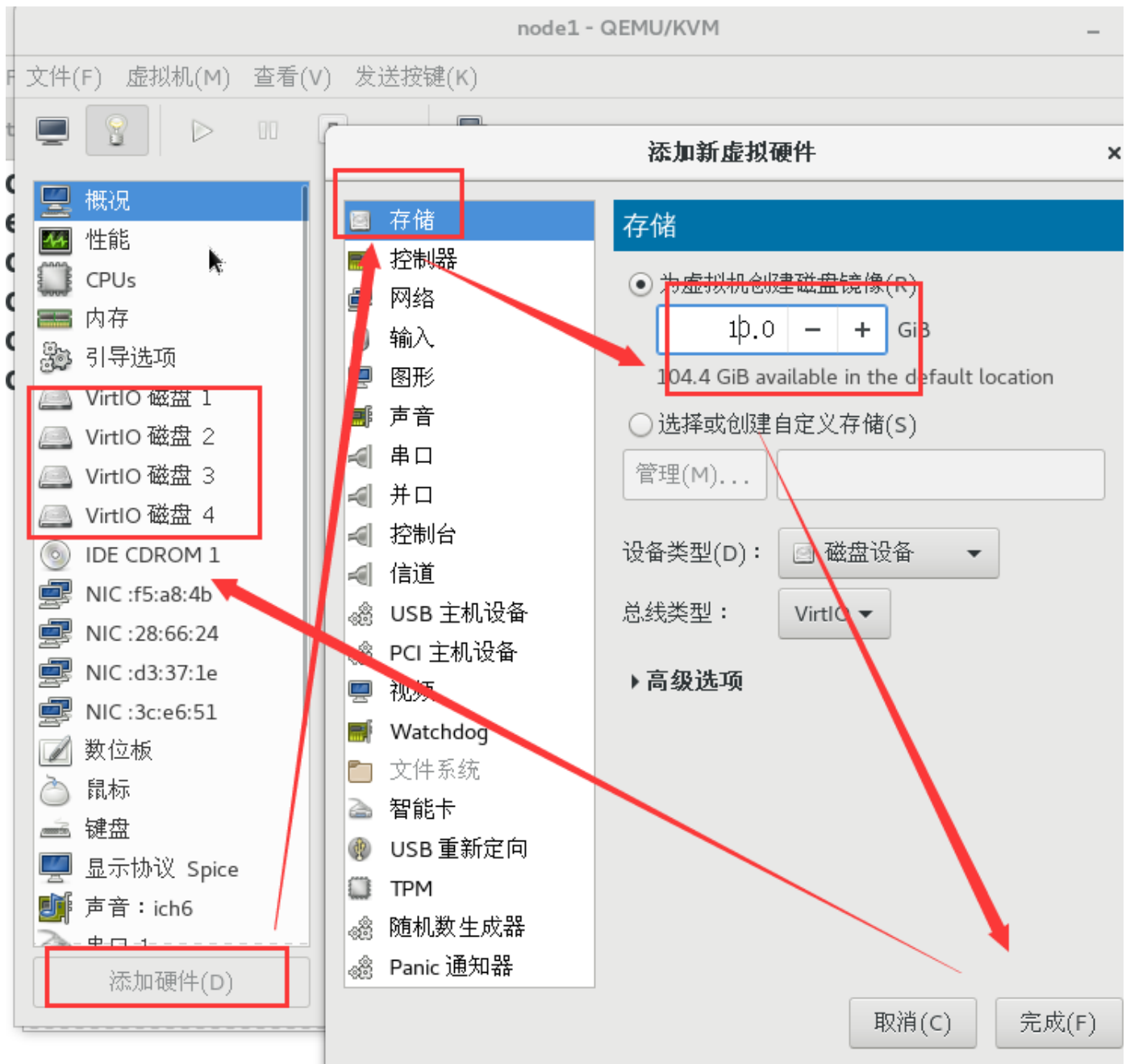


1.创建11台虚拟机并修改对应的ip跟主机名，机器直接ssh免密登录，配置主机名解析，新建一个RGW-clinet完成引导之后关闭机器。每一个node添加3个10G磁盘。

1.1 创建虚拟机并添加磁盘。

```
[root@room00pc000 ~]# clone-auto7
```





1.2 修改ip跟主机名，设置机器直接ssh 免密登录，配置主机名解析。

```
[root@room00pc000 ~]# for i in {1..5}
> do
>   echo -e "192.168.4.$i\tnode$i.tedu.cn\tnode$i" >> /etc/hosts
> done
```

编写成功后的hosts 文件

```
[root@room00pc000 ~]# tail -12 /etc/hosts
```

```
192.168.4.1 node1.tedu.cn node1
192.168.4.2 node2.tedu.cn node2
192.168.4.3 node3.tedu.cn node3
192.168.4.4 node4.tedu.cn node4
192.168.4.5 node5.tedu.cn node5
192.168.4.252 lvs_ha-1.tedu.cn lvs_ha-1
192.168.4.253 lvs_ha-2.tedu.cn lvs_ha-2
192.168.4.100 web-server1.tedu.cn web-server1
192.168.4.101 web-server2.tedu.cn web-server2
192.168.4.50 dba-server.tedu.cn dba-server
```

```
192.168.4.201    RGW-clinet.tedu.cn  RGW-clinet
```

```
### 将此机器制作成ftp服务器提供Yum。
```

```
[root@room00pc000 ~]# cat /etc/yum.repos.d/ceph-server.repo
[rhel7.4]
name=rhel7.4
baseurl=ftp://192.168.4.254/rhel7
enabled=1
gpgcheck=0
[mon]
name=mon
baseurl=ftp://192.168.4.254/ceph/rhceph-2.0-rhel-7-x86_64/MON
enabled=1
gpgcheck=0
[osd]
name=osd
baseurl=ftp://192.168.4.254/ceph/rhceph-2.0-rhel-7-x86_64/OSD
enabled=1
gpgcheck=0
[tools]
name=tools
baseurl=ftp://192.168.4.254/ceph/rhceph-2.0-rhel-7-x86_64/Tools
enabled=1
gpgcheck=0
```

```
### 配置ip跟主机名
```

```
[root@localhost ~]# nmcli connection modify eth0 ipv4.method manual ipv4.addresses
192.168.4.5/24 connection.autoconnect yes
[root@localhost ~]# nmcli connection up eth0
[root@localhost ~]# hostnamectl set-hostname node5.tedu.cn
```

```
### 配置远程登录不需要询问yes或no
```

```
[root@room00pc000 ~]# for i in `tail -11 /etc/hosts | head -10 > /etc/hosts.b ; awk -F' ' '{
print $3 }' /etc/hosts.b`; do      ssh-keyscan $i >> /root/.ssh/known_hosts ; done
```

```
### 配置远程免密登录
```

```
[root@room00pc000 ~]# for i in `tail -11 /etc/hosts | head -10 > /etc/hosts.b ; awk -F' ' '{ print
$3 }' /etc/hosts.b`; do      ssh-copy-id $i ; done
```

```
### 将本地的yum配置文件传输到几台服务器
```

```
[root@room00pc000 ~]# for i in `tail -11 /etc/hosts | head -10 > /etc/hosts.b ; awk -F' ' '{ print
$3 }' /etc/hosts.b`; do      scp /etc/yum.repos.d/ceph-server.repo  $i:/etc/yum.repos.d/ ; done
```

```
### 将hosts文件传输到几台服务器
```

```
[root@room00pc000 ~]# for i in `tail -11 /etc/hosts | head -10 > /etc/hosts.b ; awk -F' ' '{ print
$3 }' /etc/hosts.b`; do      scp /etc/hosts.b  $i:/etc/hosts ; done
```

```
### 几台服务器之间也需要配置免密登录
```

```
[root@node1 ~]# ssh-keygen -f /root/.ssh/id_rsa -N ''
```

```
[root@node1 ~]# for i in `awk -F' ' '{ print $3 }' /etc/hosts`; do      ssh-keyscan $i >>
/root/.ssh/known_hosts ; done
```

```
[root@node1 ~]# for i in `awk -F' ' '{ print $3 }' /etc/hosts`; do      ssh-copy-id $i ; done
```

2.配置ceph-pool，并提供页面给web-server跟dba-server 以及RGW-clinet。

2.1 配置node1 为ntp服务器。

```
[root@node1 ~]# yum install -y chrony
[root@node1 ~]# vim /etc/chrony.conf
server 0.centos.pool.ntp.org iburst
allow 192.168.4.0/24
local stratum 10
[root@node1 ~]# systemctl enable chronyd
[root@node1 ~]# systemctl restart chronyd

配置客户机的ntp，指定ntp服务器为node1
[root@node2 ~]# vim /etc/chrony.conf
server 192.168.4.1 iburst
[root@node2 ~]# for i in `awk -F' ' '{ print $3 }' /etc/hosts`; do      scp /etc/chrony.conf
    $i:/etc/; ssh $i systemctl restart chronyd; ntpdate 192.168.4.1; done
```

2.2 安装ceph 服务器。

- 1、在node1上安装部署软件
[root@node1 ~]# yum install -y ceph-deploy
- 2、创建ceph部署工具的工作目录
[root@node1 ~]# mkdir ceph-clu
- 3、创建参与集群节点的配置文件
[root@node1 ceph-clu]# ceph-deploy new node{1..3}
[root@node1 ceph-clu]# ls
- 4、在3个节点上安装软件包
[root@node1 ceph-clu]# ceph-deploy install node{1..3}
- 5、初始化mon服务
[root@node1 ceph-clu]# ceph-deploy mon create-initial

如果出现以下错误：
[node1][ERROR] admin_socket: exception getting command descriptions: [\[Errno 2\]](#) No such file or directory
解决方案：
[root@node1 ceph-clu]# vim ceph.conf 最下面加入行：
public_network = 192.168.4.0/24
再执行以下命令覆盖配置文件：
[root@host1 ceoh-clu]# ceph-deploy --overwrite-conf config push node1 node2 node3
然后执行 [root@node1 ceph-clu]# ceph-deploy mon create-initial

- 6、把node1-3的vdb作为日志盘。Ext / xfs都是日志文件系统，一个分区分成日志区和数据区。为了更好的性能，vdb专门作为vdc和vdd的日志盘。
[root@node1 ceph-clu]# for vm in node{1..3}
 > do
 > ssh \$vm parted /dev/vdb mklabel gpt
 > done
 [root@node1 ceph-clu]# for vm in node{1..3}; do ssh \$vm parted /dev/vdb mkpart primary 1M 50% ;
 done
 [root@node1 ceph-clu]# for vm in node{1..3}; do ssh \$vm parted /dev/vdb mkpart primary 50% 100% ;
 done
 [root@node1 ceph-clu]# for vm in node{1..3}; do ssh \${vm} chown ceph.ceph /dev/vdb? ; done
- 7、创建OSD设备
[root@node1 ceph-clu]# for i in {1..3}
 > do
 > ceph-deploy disk zap node\$i:vdc node\$i:vdd
 > done
 [root@node1 ceph-clu]# for i in {1..3}
 > do
 > ceph-deploy osd create node\$i:vdc:/dev/vdb1 node\$i:vdd:/dev/vdb2
 > done
- 8、验证
到第7步为止，ceph已经搭建完成。查看ceph状态

```
[root@node1 ceph-clu]# ceph -s 如果出现health HEALTH_OK表示正常
```

9、排错

<https://www.zybuluo.com/dyj2017/note/920621>

2.3 创建三种类型的存储。

2.3.1 创建RBD类型存储，创建clinet-img DBfile-img 镜像并挂载，制作快照跟克隆快照。

使用RBD(Rados块设备)

1、查看存储池

```
[root@node1 ~]# ceph osd lspools
```

可以查看到0号镜像池，名字为rbd

2、分别创建两个10GB镜像，名称分别为clinet-img、DBfile-img

```
[root@node1 ceph-clu]# rbd create clinet-img --image-feature layering --size 10G
```

```
[root@node1 ceph-clu]# rbd create DBfile-img --image-feature layering --size 10G
```

```
[root@node1 ~]# rbd list
```

```
[root@node1 ~]# rbd info clinet-img
```

```
[root@node1 ~]# rbd info DBfile-img
```

可以测试rbd池里面的镜像并测试扩容跟缩容操作。

创建第2个镜像，名为image，指定它位于rbd池中

```
[root@node1 ~]# rbd create rbd/image --image-feature layering --size 10G
```

将image镜像大小缩减为7G

```
[root@node1 ceph-clu]# rbd resize --size 7G image --allow-shrink
```

```
[root@node1 ceph-clu]# rbd info image
```

扩容image到15G

```
[root@node1 ceph-clu]# rbd resize --size 15G image
```

```
[root@node1 ceph-clu]# rbd info image
```

4、将dba-server作为客户端，使用ceph创建的镜像作为存储设备

(1) 安装客户端软件

```
[root@dba-server ~]# yum install -y ceph-common
```

(2) 拷贝相关文件

```
[root@node1 ceph-clu]# scp /etc/ceph/ceph.conf dba-server:/etc/ceph/
```

```
[root@node1 ceph-clu]# scp /etc/ceph/ceph.client.admin.keyring dba-server:/etc/ceph/
```

注：ceph.conf是配置文件，里面记录了ceph集群访问的方式和地址

ceph.client.admin.keyring是client.admin用户的密钥文件

(3) 映射DBfile-img 镜像到本地

```
[root@dba-server ~]# rbd map DBfile-img
```

/dev/rbd1 ->rbd1就是映射出来的硬盘文件

```
[root@dba-server ~]# lsblk
```

```
[root@dba-server ~]# rbd showmapped
```

(4) 格式化、挂载

```
[root@dba-server ~]# mkfs.ext4 /dev/rbd1
```

```
[root@dba-server ~]# mount /dev/rbd1 /var/lib/mysql/
```

```
[root@dba-server ~]# df -h /var/lib/mysql/
```

```
[root@dba-server ~]# echo 'hello world' > /var/lib/mysql/hello.txt
```

快照

1、查看image镜像的快照

```
[root@dba-server ~]# rbd snap ls DBfile-img
```

2、为image创建名为image-sn1的快照

```
[root@dba-server ~]# rbd snap create DBfile-img --snap DBfile-sn1
```

3、模拟误删除操作，恢复数据

(1) 删除

```
[root@dba-server ~]# rm -f /var/lib/mysql/hello.txt
```

(2) 卸载设备

```
[root@dba-server ~]# umount /var/lib/mysql/
```

(3) 使用DBfile-snl还原快照

```
[root@dba-server ~]# rbd snap rollback DBfile-img --snap DBfile-snl
```

Rolling back to snapshot: 100% complete...done.

(4) 挂载, 查看是否已恢复

```
[root@dba-server ~]# mount /dev/rbd1 /var/lib/mysql/
```

```
[root@dba-server ~]# cat /var/lib/mysql/hello.txt
```

hello world

克隆快照

1、克隆快照, 首先要把快照保护起来, 防止误删除之类的操作

```
[root@dba-server ~]# rbd snap protect DBfile-img --snap DBfile-snl
```

2、克隆image-snl快照, 克隆的名称是image-cl1

```
[root@dba-server ~]# rbd clone DBfile-img --snap DBfile-snl DBfile-cl1 --image-feature layering
```

3、查看状态

```
[root@dba-server ~]# rbd info DBfile-cl1
```

rbd image 'DBfile-cl1':

size 10240 MB in 2560 objects

order 22 (4096 kB objects)

block_name_prefix: rbd_data.10483d1b58ba

format: 2

features: layering

flags:

parent: rbd/DBfile-img@DBfile-snl

overlap: 10240 MB

4、合并克隆文件

```
[root@dba-server ~]# rbd flatten DBfile-cl1
```

Image flatten: 100% complete...done.

```
[root@dba-server ~]# rbd info DBfile-cl1
```

rbd image 'DBfile-cl1':

size 10240 MB in 2560 objects

order 22 (4096 kB objects)

block_name_prefix: rbd_data.10483d1b58ba

format: 2

features: layering

flags:

没有parent了

5、删除[需要的时候才用](#)

```
[root@dba-server ~]# umount /var/lib/mysql/
```

```
[root@dba-server ~]# rbd showmapped
```

```
id pool image          snap device
```

```
0 rbd clinet-img -      /dev/rbd0
```

```
1 rbd DBfile-img -      /dev/rbd1
```

```
[root@dba-server ~]# rbd unmap /dev/rbd/rbd/DBfile-img
```

无法删除快照, 因为没有关闭快照保护

```
[root@dba-server ~]# rbd snap rm DBfile-img --snap DBfile-snl
```

rbd: snapshot 'DBfile-snl' is protected from removal.

2018-10-11 17:44:03.775649 [7f6590f9cd80](#) -l librbd::Operations: snapshot is protected

```
[root@dba-server ~]# rbd snap unprotect DBfile-img --snap DBfile-snl
```

```
[root@dba-server ~]# rbd snap rm DBfile-img --snap DBfile-snl
```

3.配置lvs+ha 服务器, 使其能够调用后端web服务器。

4.配置nginx , mysql , 使用ceph 存储挂载到两台web跟dba , 安装论坛。

5.几种error 解决方法

此报错是因为node1-node3没有安装软件包 重新运行 ceph-deploy install node{1..3}

```
[root@node1 ceph-clu]# ceph-deploy mon create-initial
[ceph_deploy.conf][DEBUG ] found configuration file at: /root/.cephdeploy.conf
[ceph_deploy.cli][INFO ] Invoked (1.5.33): /usr/bin/ceph-deploy mon create-initial
[ceph_deploy.cli][INFO ] ceph-deploy options:
[ceph_deploy.cli][INFO ] username                : None
[ceph_deploy.cli][INFO ] verbose                : False
[ceph_deploy.cli][INFO ] overwrite_conf         : False
[ceph_deploy.cli][INFO ] subcommand             : create-initial
[ceph_deploy.cli][INFO ] quiet                  : False
[ceph_deploy.cli][INFO ] cd_conf                : <ceph_deploy.conf.CephDeployConf instance at 0x7f15c001d200>
[ceph_deploy.cli][INFO ] cluster                : ceph
[ceph_deploy.cli][INFO ] func                   : <function mon at 0x7f15c0013938>
[ceph_deploy.cli][INFO ] ceph_conf              : None
[ceph_deploy.cli][INFO ] default_release        : False
[ceph_deploy.cli][INFO ] keyrings               : None
[ceph_deploy.mon][DEBUG ] Deploying mon, cluster ceph hosts node1 node2 node3
[ceph_deploy.mon][DEBUG ] detecting platform for host node1 ...
[node1][DEBUG ] connected to host: node1
[node1][DEBUG ] detect platform information from remote host
[node1][DEBUG ] detect machine type
[node1][DEBUG ] find the location of an executable
[ceph_deploy.mon][ERROR ] ceph needs to be installed in remote host: node1
[ceph_deploy.mon][DEBUG ] detecting platform for host node2 ...
[node2][DEBUG ] connected to host: node2
[node2][DEBUG ] detect platform information from remote host
[node2][DEBUG ] detect machine type
[node2][DEBUG ] find the location of an executable
[ceph_deploy.mon][ERROR ] ceph needs to be installed in remote host: node2
[ceph_deploy.mon][DEBUG ] detecting platform for host node3 ...
[node3][DEBUG ] connected to host: node3
[node3][DEBUG ] detect platform information from remote host
[node3][DEBUG ] detect machine type
[node3][DEBUG ] find the location of an executable
[ceph_deploy.mon][ERROR ] ceph needs to be installed in remote host: node3
[ceph_deploy][ERROR ] GenericError: Failed to create 3 monitors
```


此错误可以vim ceph.conf 最下面加入行:

```
public_network = 192.168.4.0/24
```

再执行以下命令:

```
ceph-deploy --overwrite-conf config push node1 node2 node3
```

```

[root@node1 ceph-clu]# ceph-deploy mon create-initial
[ceph_deploy.conf][DEBUG ] found configuration file at: /root/.cephdeploy.conf
[ceph_deploy.cli][INFO  ] Invoked (1.5.33): /usr/bin/ceph-deploy mon create-initial
[ceph_deploy.cli][INFO  ] ceph-deploy options:
[ceph_deploy.cli][INFO  ] username                : None
[ceph_deploy.cli][INFO  ] verbose                : False
[ceph_deploy.cli][INFO  ] overwrite_conf         : False
[ceph_deploy.cli][INFO  ] subcommand              : create-initial
[ceph_deploy.cli][INFO  ] quiet                  : False
[ceph_deploy.cli][INFO  ] cd_conf                 :
<ceph_deploy.conf.cephdeploy.Conf instance at 0x28496c8>
[ceph_deploy.cli][INFO  ] cluster                : ceph
[ceph_deploy.cli][INFO  ] func                   : <function mon at
0x283f938>
[ceph_deploy.cli][INFO  ] ceph_conf               : None
[ceph_deploy.cli][INFO  ] default_release        : False
[ceph_deploy.cli][INFO  ] keyrings                : None
[ceph_deploy.mon][DEBUG ] Deploying mon, cluster ceph hosts node1 node2 node3
[ceph_deploy.mon][DEBUG ] detecting platform for host node1 ...
[node1][DEBUG ] connected to host: node1
[node1][DEBUG ] detect platform information from remote host
[node1][DEBUG ] detect machine type
[node1][DEBUG ] find the location of an executable
[ceph_deploy.mon][INFO  ] distro info: Red Hat Enterprise Linux Server 7.4 Maipo
[node1][DEBUG ] determining if provided host has same hostname in remote
[node1][DEBUG ] get remote short hostname
[node1][DEBUG ] deploying mon to node1
[node1][DEBUG ] get remote short hostname
[node1][DEBUG ] remote hostname: node1
[node1][DEBUG ] write cluster configuration to /etc/ceph/{cluster}.conf
[node1][DEBUG ] create the mon path if it does not exist
[node1][DEBUG ] checking for done path: /var/lib/ceph/mon/ceph-node1/done
[node1][DEBUG ] done path does not exist: /var/lib/ceph/mon/ceph-node1/done
[node1][INFO  ] creating keyring file: /var/lib/ceph/tmp/ceph-node1.mon.keyring
[node1][DEBUG ] create the monitor keyring file
[node1][INFO  ] Running command: ceph-mon --cluster ceph --mkfs -i node1 --keyring
/var/lib/ceph/tmp/ceph-node1.mon.keyring --setuser 167 --setgroup 167
[node1][DEBUG ] ceph-mon: mon.noname-a 192.168.4.1:6789/0 is local, renaming to
mon.node1
[node1][DEBUG ] ceph-mon: set fsid to ff979247-1a38-409a-905a-96f8031faf4e
[node1][DEBUG ] ceph-mon: created monfs at /var/lib/ceph/mon/ceph-node1 for
mon.node1
[node1][INFO  ] unlinking keyring file /var/lib/ceph/tmp/ceph-node1.mon.keyring
[node1][DEBUG ] create a done file to avoid re-doing the mon deployment
[node1][DEBUG ] create the init path if it does not exist
[node1][INFO  ] Running command: systemctl enable ceph.target
[node1][INFO  ] Running command: systemctl enable ceph-mon@node1
[node1][WARNIN] Created symlink from /etc/systemd/system/ceph-mon.target.wants/ceph-
mon@node1.service to /usr/lib/systemd/system/ceph-mon@.service.
[node1][INFO  ] Running command: systemctl start ceph-mon@node1
[node1][INFO  ] Running command: ceph --cluster=ceph --admin-daemon

```

```

/var/run/ceph/ceph-mon.node1.asok mon_status
[node1][DEBUG ]
*****
[node1][DEBUG ] status for monitor: mon.node1
[node1][DEBUG ] {
[node1][DEBUG ]   "election_epoch": 0,
[node1][DEBUG ]   "extra_probe_peers": [
[node1][DEBUG ]     "192.168.4.2:6789/0",
[node1][DEBUG ]     "192.168.4.3:6789/0"
[node1][DEBUG ]   ],
[node1][DEBUG ]   "monmap": {
[node1][DEBUG ]     "created": "2018-09-27 17:16:49.856465",
[node1][DEBUG ]     "epoch": 0,
[node1][DEBUG ]     "fsid": "ff979247-1a38-409a-905a-96f8031faf4e",
[node1][DEBUG ]     "modified": "2018-09-27 17:16:49.856465",
[node1][DEBUG ]     "mons": [
[node1][DEBUG ]       {
[node1][DEBUG ]         "addr": "192.168.4.1:6789/0",
[node1][DEBUG ]         "name": "node1",
[node1][DEBUG ]         "rank": 0
[node1][DEBUG ]       },
[node1][DEBUG ]       {
[node1][DEBUG ]         "addr": "0.0.0.0:0/1",
[node1][DEBUG ]         "name": "node2",
[node1][DEBUG ]         "rank": 1
[node1][DEBUG ]       },
[node1][DEBUG ]       {
[node1][DEBUG ]         "addr": "0.0.0.0:0/2",
[node1][DEBUG ]         "name": "node3",
[node1][DEBUG ]         "rank": 2
[node1][DEBUG ]       }
[node1][DEBUG ]     ],
[node1][DEBUG ]     "name": "node1",
[node1][DEBUG ]     "outside_quorum": [
[node1][DEBUG ]       "node1"
[node1][DEBUG ]     ],
[node1][DEBUG ]     "quorum": [],
[node1][DEBUG ]     "rank": 0,
[node1][DEBUG ]     "state": "probing",
[node1][DEBUG ]     "sync_provider": []
[node1][DEBUG ]   }
[node1][DEBUG ]
*****
[node1][INFO ] monitor: mon.node1 is running
[node1][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node1.asok mon_status
[ceph_deploy.mon][DEBUG ] detecting platform for host node2 ...
[node2][DEBUG ] connected to host: node2
[node2][DEBUG ] detect platform information from remote host
[node2][DEBUG ] detect machine type
[node2][DEBUG ] find the location of an executable

```

```

[ceph_deploy.mon][INFO ] distro info: Red Hat Enterprise Linux Server 7.4 Maipo
[node2][DEBUG ] determining if provided host has same hostname in remote
[node2][DEBUG ] get remote short hostname
[node2][WARNIN]
*****
[node2][WARNIN] provided hostname must match remote hostname
[node2][WARNIN] provided hostname: node2
[node2][WARNIN] remote hostname: localhost
[node2][WARNIN] monitors may not reach quorum and create-keys will not complete
[node2][WARNIN]
*****
[node2][DEBUG ] deploying mon to node2
[node2][DEBUG ] get remote short hostname
[node2][DEBUG ] remote hostname: localhost
[node2][DEBUG ] write cluster configuration to /etc/ceph/{cluster}.conf
[node2][DEBUG ] create the mon path if it does not exist
[node2][DEBUG ] checking for done path: /var/lib/ceph/mon/ceph-localhost/done
[node2][DEBUG ] done path does not exist: /var/lib/ceph/mon/ceph-localhost/done
[node2][INFO ] creating keyring file: /var/lib/ceph/tmp/ceph-localhost.mon.keyring
[node2][DEBUG ] create the monitor keyring file
[node2][INFO ] Running command: ceph-mon --cluster ceph --mkfs -i localhost --
keyring /var/lib/ceph/tmp/ceph-localhost.mon.keyring --setuser 167 --setgroup 167
[node2][DEBUG ] ceph-mon: mon.noname-b 192.168.4.2:6789/0 is local, renaming to
mon.localhost
[node2][DEBUG ] ceph-mon: set fsid to ff979247-1a38-409a-905a-96f8031faf4e
[node2][DEBUG ] ceph-mon: created monfs at /var/lib/ceph/mon/ceph-localhost for
mon.localhost
[node2][INFO ] unlinking keyring file /var/lib/ceph/tmp/ceph-localhost.mon.keyring
[node2][DEBUG ] create a done file to avoid re-doing the mon deployment
[node2][DEBUG ] create the init path if it does not exist
[node2][INFO ] Running command: systemctl enable ceph.target
[node2][INFO ] Running command: systemctl enable ceph-mon@localhost
[node2][WARNIN] Created symlink from /etc/systemd/system/ceph-mon.target.wants/ceph-
mon@localhost.service to /usr/lib/systemd/system/ceph-mon@.service.
[node2][INFO ] Running command: systemctl start ceph-mon@localhost
[node2][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node2.asok mon_status
[node2][ERROR ] admin_socket: exception getting command descriptions: [Errno 2] No
such file or directory
[node2][WARNIN] monitor: mon.node2, might not be running yet
[node2][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node2.asok mon_status
[node2][ERROR ] admin_socket: exception getting command descriptions: [Errno 2] No
such file or directory
[node2][WARNIN] monitor node2 does not exist in monmap
[node2][WARNIN] neither `public_addr` nor `public_network` keys are defined for
monitors
[node2][WARNIN] monitors may not be able to form quorum
[ceph_deploy.mon][DEBUG ] detecting platform for host node3 ...
[node3][DEBUG ] connected to host: node3
[node3][DEBUG ] detect platform information from remote host
[node3][DEBUG ] detect machine type

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[node3][DEBUG ] find the location of an executable
[ceph_deploy.mon][INFO ] distro info: Red Hat Enterprise Linux Server 7.4 Maipo
[node3][DEBUG ] determining if provided host has same hostname in remote
[node3][DEBUG ] get remote short hostname
[node3][DEBUG ] deploying mon to node3
[node3][DEBUG ] get remote short hostname
[node3][DEBUG ] remote hostname: node3
[node3][DEBUG ] write cluster configuration to /etc/ceph/{cluster}.conf
[node3][DEBUG ] create the mon path if it does not exist
[node3][DEBUG ] checking for done path: /var/lib/ceph/mon/ceph-node3/done
[node3][DEBUG ] done path does not exist: /var/lib/ceph/mon/ceph-node3/done
[node3][INFO ] creating keyring file: /var/lib/ceph/tmp/ceph-node3.mon.keyring
[node3][DEBUG ] create the monitor keyring file
[node3][INFO ] Running command: ceph-mon --cluster ceph --mkfs -i node3 --keyring
/var/lib/ceph/tmp/ceph-node3.mon.keyring --setuser 167 --setgroup 167
[node3][DEBUG ] ceph-mon: mon.noname-c 192.168.4.3:6789/0 is local, renaming to
mon.node3
[node3][DEBUG ] ceph-mon: set fsid to ff979247-1a38-409a-905a-96f8031faf4e
[node3][DEBUG ] ceph-mon: created monfs at /var/lib/ceph/mon/ceph-node3 for
mon.node3
[node3][INFO ] unlinking keyring file /var/lib/ceph/tmp/ceph-node3.mon.keyring
[node3][DEBUG ] create a done file to avoid re-doing the mon deployment
[node3][DEBUG ] create the init path if it does not exist
[node3][INFO ] Running command: systemctl enable ceph.target
[node3][INFO ] Running command: systemctl enable ceph-mon@node3
[node3][WARNIN] Created symlink from /etc/systemd/system/ceph-mon.target.wants/ceph-
mon@node3.service to /usr/lib/systemd/system/ceph-mon@.service.
[node3][INFO ] Running command: systemctl start ceph-mon@node3
[node3][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node3.asok mon_status
[node3][DEBUG ]
*****
[node3][DEBUG ] status for monitor: mon.node3
[node3][DEBUG ] {
[node3][DEBUG ]   "election_epoch": 1,
[node3][DEBUG ]   "extra_probe_peers": [
[node3][DEBUG ]     "192.168.4.1:6789/0",
[node3][DEBUG ]     "192.168.4.2:6789/0"
[node3][DEBUG ]   ],
[node3][DEBUG ]   "monmap": {
[node3][DEBUG ]     "created": "2018-09-27 17:16:56.677241",
[node3][DEBUG ]     "epoch": 0,
[node3][DEBUG ]     "fsid": "ff979247-1a38-409a-905a-96f8031faf4e",
[node3][DEBUG ]     "modified": "2018-09-27 17:16:56.677241",
[node3][DEBUG ]     "mons": [
[node3][DEBUG ]       {
[node3][DEBUG ]         "addr": "192.168.4.1:6789/0",
[node3][DEBUG ]         "name": "node1",
[node3][DEBUG ]         "rank": 0
[node3][DEBUG ]       },
[node3][DEBUG ]       {
[node3][DEBUG ]         "addr": "192.168.4.3:6789/0",

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[node3][DEBUG ]      "name": "node3",
[node3][DEBUG ]      "rank": 1
[node3][DEBUG ]    },
[node3][DEBUG ]    {
[node3][DEBUG ]      "addr": "0.0.0.0:0/2",
[node3][DEBUG ]      "name": "node2",
[node3][DEBUG ]      "rank": 2
[node3][DEBUG ]    }
[node3][DEBUG ]  ]
[node3][DEBUG ] },
[node3][DEBUG ]   "name": "node3",
[node3][DEBUG ]   "outside_quorum": [],
[node3][DEBUG ]   "quorum": [],
[node3][DEBUG ]   "rank": 1,
[node3][DEBUG ]   "state": "electing",
[node3][DEBUG ]   "sync_provider": []
[node3][DEBUG ] }
[node3][DEBUG ]

*****
[node3][INFO ] monitor: mon.node3 is running
[node3][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node3.asok mon_status
[ceph_deploy.mon][INFO ] processing monitor mon.node1
[node1][DEBUG ] connected to host: node1
[node1][DEBUG ] detect platform information from remote host
[node1][DEBUG ] detect machine type
[node1][DEBUG ] find the location of an executable
[node1][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node1.asok mon_status
[ceph_deploy.mon][WARNIN] mon.node1 monitor is not yet in quorum, tries left: 5
[ceph_deploy.mon][WARNIN] waiting 5 seconds before retrying
[node1][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node1.asok mon_status
[ceph_deploy.mon][WARNIN] mon.node1 monitor is not yet in quorum, tries left: 4
[ceph_deploy.mon][WARNIN] waiting 10 seconds before retrying
[node1][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node1.asok mon_status
[ceph_deploy.mon][WARNIN] mon.node1 monitor is not yet in quorum, tries left: 3
[ceph_deploy.mon][WARNIN] waiting 10 seconds before retrying
[node1][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node1.asok mon_status
[ceph_deploy.mon][WARNIN] mon.node1 monitor is not yet in quorum, tries left: 2
[ceph_deploy.mon][WARNIN] waiting 15 seconds before retrying
[node1][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node1.asok mon_status
[ceph_deploy.mon][WARNIN] mon.node1 monitor is not yet in quorum, tries left: 1
[ceph_deploy.mon][WARNIN] waiting 20 seconds before retrying
[ceph_deploy.mon][INFO ] processing monitor mon.node2
[node2][DEBUG ] connected to host: node2
[node2][DEBUG ] detect platform information from remote host
[node2][DEBUG ] detect machine type
[node2][DEBUG ] find the location of an executable

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[node2][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node2.asok mon_status
[node2][ERROR ] admin_socket: exception getting command descriptions: [Errno 2] No
such file or directory
[ceph_deploy.mon][WARNIN] mon.node2 monitor is not yet in quorum, tries left: 5
[ceph_deploy.mon][WARNIN] waiting 5 seconds before retrying
[node2][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node2.asok mon_status
[node2][ERROR ] admin_socket: exception getting command descriptions: [Errno 2] No
such file or directory
[ceph_deploy.mon][WARNIN] mon.node2 monitor is not yet in quorum, tries left: 4
[ceph_deploy.mon][WARNIN] waiting 10 seconds before retrying
[node2][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node2.asok mon_status
[node2][ERROR ] admin_socket: exception getting command descriptions: [Errno 2] No
such file or directory
[ceph_deploy.mon][WARNIN] mon.node2 monitor is not yet in quorum, tries left: 3
[ceph_deploy.mon][WARNIN] waiting 10 seconds before retrying
[node2][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node2.asok mon_status
[node2][ERROR ] admin_socket: exception getting command descriptions: [Errno 2] No
such file or directory
[ceph_deploy.mon][WARNIN] mon.node2 monitor is not yet in quorum, tries left: 2
[ceph_deploy.mon][WARNIN] waiting 15 seconds before retrying
[node2][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node2.asok mon_status
[node2][ERROR ] admin_socket: exception getting command descriptions: [Errno 2] No
such file or directory
[ceph_deploy.mon][WARNIN] mon.node2 monitor is not yet in quorum, tries left: 1
[ceph_deploy.mon][WARNIN] waiting 20 seconds before retrying
[ceph_deploy.mon][INFO ] processing monitor mon.node3
[node3][DEBUG ] connected to host: node3
[node3][DEBUG ] detect platform information from remote host
[node3][DEBUG ] detect machine type
[node3][DEBUG ] find the location of an executable
[node3][INFO ] Running command: ceph --cluster=ceph --admin-daemon
/var/run/ceph/ceph-mon.node3.asok mon_status
[ceph_deploy.mon][INFO ] mon.node3 monitor has reached quorum!
[ceph_deploy.mon][ERROR ] Some monitors have still not reached quorum:
[ceph_deploy.mon][ERROR ] node1
[ceph_deploy.mon][ERROR ] node2

```

ceph-deploy mon create-initial 之后还是提示文件不一致需要覆盖，可以删掉有问题的机器的 /var/run/ceph/* 然后重启之后再执行一次，如果还不行的话，使用 ceph-deploy --overwrite-conf mon create node2 node3 node1 代替 ceph-deploy mon create-initial 也行

```

[root@node1 ceph-clu]# ceph-deploy mon create-initial
[ceph_deploy.conf][DEBUG ] found configuration file at: /root/.cephdeploy.conf
[ceph_deploy.cli][INFO  ] Invoked (1.5.33): /usr/bin/ceph-deploy mon create-initial
[ceph_deploy.cli][INFO  ] ceph-deploy options:
[ceph_deploy.cli][INFO  ] username                : None
[ceph_deploy.cli][INFO  ] verbose                : False
[ceph_deploy.cli][INFO  ] overwrite_conf         : False
[ceph_deploy.cli][INFO  ] subcommand              : create-initial
[ceph_deploy.cli][INFO  ] quiet                  : False
[ceph_deploy.cli][INFO  ] cd_conf                 :
<ceph_deploy.conf.cephdeploy.Conf instance at 0x1bc06c8>
[ceph_deploy.cli][INFO  ] cluster                : ceph
[ceph_deploy.cli][INFO  ] func                   : <function mon at
0x1bb6938>
[ceph_deploy.cli][INFO  ] ceph_conf               : None
[ceph_deploy.cli][INFO  ] default_release         : False
[ceph_deploy.cli][INFO  ] keyrings                : None
[ceph_deploy.mon][DEBUG ] Deploying mon, cluster ceph hosts node1 node2 node3
[ceph_deploy.mon][DEBUG ] detecting platform for host node1 ...
[node1][DEBUG ] connected to host: node1
[node1][DEBUG ] detect platform information from remote host
[node1][DEBUG ] detect machine type
[node1][DEBUG ] find the location of an executable
[ceph_deploy.mon][INFO  ] distro info: Red Hat Enterprise Linux Server 7.4 Maipo
[node1][DEBUG ] determining if provided host has same hostname in remote
[node1][DEBUG ] get remote short hostname
[node1][DEBUG ] deploying mon to node1
[node1][DEBUG ] get remote short hostname
[node1][DEBUG ] remote hostname: node1
[node1][DEBUG ] write cluster configuration to /etc/ceph/{cluster}.conf
[ceph_deploy.mon][ERROR ] RuntimeError: config file /etc/ceph/ceph.conf exists with
different content; use --overwrite-conf to overwrite
[ceph_deploy.mon][DEBUG ] detecting platform for host node2 ...
[node2][DEBUG ] connected to host: node2
[node2][DEBUG ] detect platform information from remote host
[node2][DEBUG ] detect machine type
[node2][DEBUG ] find the location of an executable
[ceph_deploy.mon][INFO  ] distro info: Red Hat Enterprise Linux Server 7.4 Maipo
[node2][DEBUG ] determining if provided host has same hostname in remote
[node2][DEBUG ] get remote short hostname
[node2][WARNIN]
*****
[node2][WARNIN] provided hostname must match remote hostname
[node2][WARNIN] provided hostname: node2
[node2][WARNIN] remote hostname: localhost
[node2][WARNIN] monitors may not reach quorum and create-keys will not complete
[node2][WARNIN]
*****
[node2][DEBUG ] deploying mon to node2
[node2][DEBUG ] get remote short hostname
[node2][DEBUG ] remote hostname: localhost

```



```
[node2][DEBUG ] write cluster configuration to /etc/ceph/{cluster}.conf
[ceph_deploy.mon][ERROR ] RuntimeError: config file /etc/ceph/ceph.conf exists with
different content; use --overwrite-conf to overwrite
[ceph_deploy.mon][DEBUG ] detecting platform for host node3 ...
[node3][DEBUG ] connected to host: node3
[node3][DEBUG ] detect platform information from remote host
[node3][DEBUG ] detect machine type
[node3][DEBUG ] find the location of an executable
[ceph_deploy.mon][INFO  ] distro info: Red Hat Enterprise Linux Server 7.4 Maipo
[node3][DEBUG ] determining if provided host has same hostname in remote
[node3][DEBUG ] get remote short hostname
[node3][DEBUG ] deploying mon to node3
[node3][DEBUG ] get remote short hostname
[node3][DEBUG ] remote hostname: node3
[node3][DEBUG ] write cluster configuration to /etc/ceph/{cluster}.conf
[ceph_deploy.mon][ERROR ] RuntimeError: config file /etc/ceph/ceph.conf exists with
different content; use --overwrite-conf to overwrite
[ceph_deploy][ERROR ] GenericError: Failed to create 3 monitors
```