Viewing the Monitor Quorum

Verify the MON quorum status by using the `ceph status` or `ceph mon stat` commands.

```
[ceph: root@node /]# ceph mon stat
e4: 4 mons at {nodea=[v2:172.25.250.10:3300/0,v1:172.25.250.10:6789/0],
 nodeb=[v2:172.25.250.12:3300/0,v1:172.25.250.12:6789/0],
 nodec=[v2:172.25.250.13:3300/0,v1:172.25.250.13:6789/0]}, election epoch 66,
 leader 0 nodea, quorum 0,1,2 nodea,nodeb,nodec
```

Alternately, use the `ceph quorum_status` command. Add the `-f json-pretty` option to create a more readable output.

```
[ceph: root@node /]# ceph quorum_status -f json-pretty
{
    "election_epoch": 5,
    "quorum": [
        0,
        1,
        2
    ],
    "quorum_names": [
        "nodea",
        "nodeb",
        "nodec"
    ],
    "quorum_leader_name": "nodea",
    "quorum_age": 1172,
    "features": {
...output omitted...
```

You can also view the status of MONs in the Dashboard. In the Dashboard, click **Cluster** → **Monitors** to view the status of the Monitor nodes and quorum.

Analyzing the Monitor Map

The Ceph cluster map contains the MON map, OSD map, PG map, MDS map, and CRUSH map.

The MON map contains the cluster *fsid* (File System ID), and the name, IP address, and network port to communicate with each MON node. The fsid is a unique, auto-generated identifier (UUID) that identifies the Ceph cluster.

The MON map also keeps map version information, such as the epoch and time of the last change. MON nodes maintain the map by synchronizing changes and agreeing on the current version.

Use the `ceph mon dump` command to view the current MON map.

```
[ceph: root@node /]# ceph mon dump
epoch 4
fsid 11839bde-156b-11ec-bb71-52540000fa0c
last_changed 2021-09-14T14:54:23.611787+0000
created 2021-09-14T14:50:37.372360+0000
min_mon_release 16 (pacific)
election_strategy: 1
```