

ADD/REMOVE MONITORS

With `ceph-deploy`, adding and removing monitors is a simple task. You just add or remove one or more monitors on the command line with one command. Before `ceph-deploy`, the process of **adding and removing monitors** involved numerous manual steps. Using `ceph-deploy` imposes a restriction: **you may only install one monitor per host**.

Note: We do not recommend comingling monitors and OSDs on the same host.

For high availability, you should run a production Ceph cluster with **AT LEAST** three monitors. Ceph uses the Paxos algorithm, which requires a consensus among the majority of monitors in a quorum. With Paxos, the monitors cannot determine a majority for establishing a quorum with only two monitors. A majority of monitors must be counted as such: 1:1, 2:3, 3:4, 3:5, 4:6, etc.

See [Monitor Config Reference](#) for details on configuring monitors.

ADD A MONITOR

Once you create a cluster and install Ceph packages to the monitor host(s), you may deploy the monitor(s) to the monitor host(s). When using `ceph-deploy`, the tool enforces a single monitor per host.

```
ceph-deploy mon create {host-name [host-name]...}
```

Note: Ensure that you add monitors such that they may arrive at a consensus among a majority of monitors, otherwise other steps (like `ceph-deploy gatherkeys`) will fail.

Note: When adding a monitor on a host that was not in hosts initially defined with the `ceph-deploy new` command, a `public network` statement needs to be added to the `ceph.conf` file.

REMOVE A MONITOR

If you have a monitor in your cluster that you'd like to remove, you may use the `destroy` option.

```
ceph-deploy mon destroy {host-name [host-name]...}
```

Note: Ensure that if you remove a monitor, the remaining monitors will be able to establish a consensus. If that is not possible, consider adding a monitor before removing the monitor you would like to take offline.