

OPERATING A CLUSTER

RUNNING CEPH WITH SYSTEMD

For all distributions that support systemd (CentOS 7, Fedora, Debian Jessie 8 and later, SUSE), ceph daemons are now managed using native systemd files instead of the legacy sysvinit scripts. For example:

```
sudo systemctl start ceph.target      # start all daemons
sudo systemctl status ceph-osd@12     # check status of osd.12
```

To list the Ceph systemd units on a node, execute:

```
sudo systemctl status ceph\*.service ceph\*.target
```

STARTING ALL DAEMONS

To start all daemons on a Ceph Node (irrespective of type), execute the following:

```
sudo systemctl start ceph.target
```

STOPPING ALL DAEMONS

To stop all daemons on a Ceph Node (irrespective of type), execute the following:

```
sudo systemctl stop ceph\*.service ceph\*.target
```

STARTING ALL DAEMONS BY TYPE

To start all daemons of a particular type on a Ceph Node, execute one of the following:

```
sudo systemctl start ceph-osd.target
sudo systemctl start ceph-mon.target
sudo systemctl start ceph-mds.target
```

STOPPING ALL DAEMONS BY TYPE

To stop all daemons of a particular type on a Ceph Node, execute one of the following:

```
sudo systemctl stop ceph-mon\*.service ceph-mon.target
sudo systemctl stop ceph-osd\*.service ceph-osd.target
sudo systemctl stop ceph-mds\*.service ceph-mds.target
```

STARTING A DAEMON

To start a specific daemon instance on a Ceph Node, execute one of the following:

```
sudo systemctl start ceph-osd@{id}
sudo systemctl start ceph-mon@{hostname}
sudo systemctl start ceph-mds@{hostname}
```

For example:

```
sudo systemctl start ceph-osd@1
sudo systemctl start ceph-mon@ceph-server
sudo systemctl start ceph-mds@ceph-server
```

STOPPING A DAEMON

To stop a specific daemon instance on a Ceph Node, execute one of the following:

```
sudo systemctl stop ceph-osd@{id}
sudo systemctl stop ceph-mon@{hostname}
sudo systemctl stop ceph-mds@{hostname}
```

For example:

```
sudo systemctl stop ceph-osd@1
sudo systemctl stop ceph-mon@ceph-server
sudo systemctl stop ceph-mds@ceph-server
```

RUNNING CEPH WITH UPSTART

When deploying Ceph with ceph-deploy on Ubuntu Trusty, you may start and stop Ceph daemons on a **Ceph Node** using the event-based **Upstart**. Upstart does not require you to define daemon instances in the Ceph configuration file.

To list the Ceph Upstart jobs and instances on a node, execute:

```
sudo initctl list | grep ceph
```

See **initctl** for additional details.

STARTING ALL DAEMONS

To start all daemons on a Ceph Node (irrespective of type), execute the following:

```
sudo start ceph-all
```

STOPPING ALL DAEMONS

To stop all daemons on a Ceph Node (irrespective of type), execute the following:

```
sudo stop ceph-all
```

STARTING ALL DAEMONS BY TYPE

To start all daemons of a particular type on a Ceph Node, execute one of the following:

```
sudo start ceph-osd-all
sudo start ceph-mon-all
sudo start ceph-mds-all
```

STOPPING ALL DAEMONS BY TYPE

To stop all daemons of a particular type on a Ceph Node, execute one of the following:

```
sudo stop ceph-osd-all
```

```
sudo stop ceph-mon-all
sudo stop ceph-mds-all
```

STARTING A DAEMON

To start a specific daemon instance on a Ceph Node, execute one of the following:

```
sudo start ceph-osd id={id}
sudo start ceph-mon id={hostname}
sudo start ceph-mds id={hostname}
```

For example:

```
sudo start ceph-osd id=1
sudo start ceph-mon id=ceph-server
sudo start ceph-mds id=ceph-server
```

STOPPING A DAEMON

To stop a specific daemon instance on a Ceph Node, execute one of the following:

```
sudo stop ceph-osd id={id}
sudo stop ceph-mon id={hostname}
sudo stop ceph-mds id={hostname}
```

For example:

```
sudo stop ceph-osd id=1
sudo start ceph-mon id=ceph-server
sudo start ceph-mds id=ceph-server
```

RUNNING CEPH

Each time you to **start**, **restart**, and **stop** Ceph daemons (or your entire cluster) you must specify at least one option and one command. You may also specify a daemon type or a daemon instance.

```
{commandline} [options] [commands] [daemons]
```

The ceph options include:

Option	Shortcut	Description
--verbose	-v	Use verbose logging.
--valgrind	N/A	(Dev and QA only) Use Valgrind debugging.
--allhosts	-a	Execute on all nodes in <code>ceph.conf</code> . Otherwise, it only executes on <code>localhost</code> .
--restart	N/A	Automatically restart daemon if it core dumps.
--norestart	N/A	Don't restart a daemon if it core dumps.
--conf	-c	Use an alternate configuration file.

The ceph commands include:

Command	Description
start	Start the daemon(s).
stop	Stop the daemon(s).
forcestop	Force the daemon(s) to stop. Same as <code>kill -9</code>
killall	Kill all daemons of a particular type.
cleanlogs	Cleans out the log directory.

`cleanalllogs` Cleans out **everything** in the log directory.

For subsystem operations, the ceph service can target specific daemon types by adding a particular daemon type for the [daemons] option. Daemon types include:

- mon
- osd
- mds