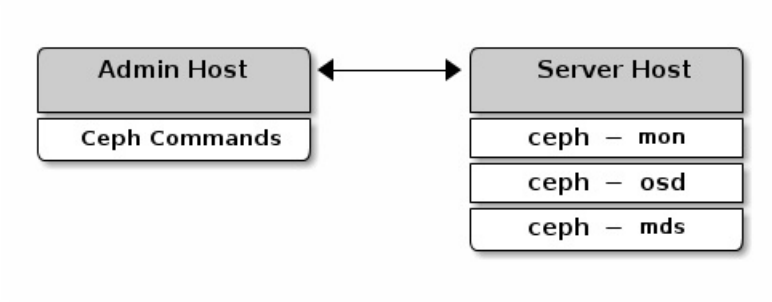
OBJECT STORE QUICK START

If you haven't completed your Preflight Checklist, do that first. This **Quick Start** sets up a two-node demo cluster so you can explore some of the object store functionality. This **Quick Start** will help you install a minimal Ceph cluster on a server host from your admin host using `ceph-deploy`.



For best results, create a directory on your client machine for maintaining the configuration of your cluster.

```
mkdir my-cluster
cd my-cluster
```

Tip: The `ceph-deploy` utility will output files to the current directory.

INSTALL CEPH

To install Ceph on your server, open a command line on your client machine and type the following:

```
ceph-deploy install {server-name}[,{server-name}]
ceph-deploy install --stable cuttlefish ceph-server
```

Without additional arguments, `ceph-deploy` will install the most recent stable Ceph package to the host machine. See ceph-deploy install -h for additional details.

CREATE A CLUSTER

To create your cluster, declare its inital monitors, generate a filesystem ID (`fsid`) and generate monitor keys by entering the following command on a commandline prompt:

```
ceph-deploy new {server-name}
ceph-deploy new ceph-server
```

Check the output with `ls` and `cat` in the current directory. You should see a Ceph configuration file, a keyring, and a log file for the new cluster. See ceph-deploy new -h for additional details.

Single Host Quick Start

Assuming only one host for your cluster, you will need to modify the default `osd crush chooseleaf type` setting (it defaults to `1` for `host`) to `0` so that it will peer with OSDs on the local host. Add the following line to your Ceph configuration file:

```
osd crush chooseleaf type = 0
```

ADD A MONITOR

To run a Ceph cluster, you need at least one monitor. When using `ceph-deploy`, the tool enforces a single monitor per host.

Execute the following to create a monitor:

```
ceph-deploy mon create {server-name}
ceph-deploy mon create ceph-server
```

Tip: In production environments, we recommend running monitors on hosts that do not run OSDs.

GATHER KEYS

To deploy additional daemons and provision them with monitor authentication keys from your admin host, you must first gather keys from a monitor host. Execute the following to gather keys:

```
ceph-deploy gatherkeys {mon-server-name}
ceph-deploy gatherkeys ceph-server
```

ADD OSDS

For a cluster's object placement groups to reach an `active + clean` state, you must have at least two OSDs and at least two copies of an object (`osd pool default size` is 2 by default).

Adding OSDs is slightly more involved than other `ceph-deploy` commands, because an OSD involves both a data store and a journal. The `ceph-deploy` tool has the ability to invoke `ceph-disk-prepare` to prepare the disk and activate the OSD for you.

LIST DISKS

To list the available disk drives on a prospective OSD host, execute the following:

```
ceph-deploy disk list {osd-server-name}
ceph-deploy disk list ceph-server
```

ZAP A DISK

To zap a disk (delete its partition table) in preparation for use with Ceph, execute the following:

```
ceph-deploy disk zap {osd-server-name}:/path/to/disk
```

Important: This will delete all data in the partition.

ADD OSDS

To prepare an OSD disk and activate it, execute the following:

```
ceph-deploy osd create {osd-server-name}:/path/to/disk[:/path/to/journal]
ceph-deploy osd create {osd-server-name}:/dev/sdb1
ceph-deploy osd create {osd-server-name}:/dev/sdb2
```

You must add a minimum of two OSDs for the placement groups in a cluster to achieve an `active + clean` state.

ADD A MDS

To use CephFS, you need at least one metadata server. Execute the following to create a metadata server:

```
ceph-deploy mds create {server-name}
```

```
ceph-deploy mds create ceph-server
```

Note: Currently Ceph runs in production with one metadata server only. You may use more, but there is currently no commercial support for a cluster with multiple metadata servers.

SUMMARY

Once you deploy a Ceph cluster, you can try out some of the administration functionality, the object store command line, and then proceed to Quick Start guides for RBD, CephFS, and the Ceph Gateway.

Other ceph-deploy Commands

To view other `ceph-deploy` commands, execute:

```
ceph-deploy -h
```

See Ceph Deploy for additional details.