

CEPH FS QUICK START

To use the **Ceph FS** Quick Start guide, you must have executed the procedures in the **Storage Cluster Quick Start** guide first. Execute this quick start on the Admin Host.

PREREQUISITES

1. Verify that you have an appropriate version of the Linux kernel. See **OS Recommendations** for details.

```
lsb_release -a
uname -r
```

2. On the admin node, use ceph-deploy to install Ceph on your ceph-client node.

```
ceph-deploy install ceph-client
```

3. Ensure that the **Ceph Storage Cluster** is running and in an active + clean state. Also, ensure that you have at least one **Ceph Metadata Server** running.

```
ceph -s [-m {monitor-ip-address}] [-k {path/to/ceph.client.admin.keyring}]
```

CREATE A FILESYSTEM

You have already created an MDS (**Storage Cluster Quick Start**) but it will not become active until you create some pools and a filesystem. See **Create a Ceph filesystem**.

```
ceph osd pool create cephfs_data <pg_num>
ceph osd pool create cephfs_metadata <pg_num>
ceph fs new <fs_name> cephfs_metadata cephfs_data
```

CREATE A SECRET FILE

The Ceph Storage Cluster runs with authentication turned on by default. You should have a file containing the secret key (i.e., not the keyring itself). To obtain the secret key for a particular user, perform the following procedure:

1. Identify a key for a user within a keyring file. For example:

```
cat ceph.client.admin.keyring
```

2. Copy the key of the user who will be using the mounted Ceph FS filesystem. It should look something like this:

```
[client.admin]
key = AQCj2YpRiAe6CxAA7/ETt7Hcl9IyxyYciVs47w==
```

3. Open a text editor.
4. Paste the key into an empty file. It should look something like this:

```
AQCj2YpRiAe6CxAA7/ETt7Hcl9IyxyYciVs47w==
```

5. Save the file with the user name as an attribute (e.g., admin.secret).
6. Ensure the file permissions are appropriate for the user, but not visible to other users.

KERNEL DRIVER

Mount Ceph FS as a kernel driver.

```
sudo mkdir /mnt/mycephfs
sudo mount -t ceph {ip-address-of-monitor}:6789:/ /mnt/mycephfs
```

The Ceph Storage Cluster uses authentication by default. Specify a user name and the secretfile you created in the [Create a Secret File](#) section. For example:

```
sudo mount -t ceph 192.168.0.1:6789:/ /mnt/mycephfs -o name=admin,secretfile=admin.secret
```

Note: Mount the Ceph FS filesystem on the admin node, not the server node. See [FAQ](#) for details.

FILESYSTEM IN USER SPACE (FUSE)

Mount Ceph FS as a Filesystem in User Space (FUSE).

```
sudo mkdir ~/mycephfs
sudo ceph-fuse -m {ip-address-of-monitor}:6789 ~/mycephfs
```

The Ceph Storage Cluster uses authentication by default. Specify a keyring if it is not in the default location (i.e., /etc/ceph):

```
sudo ceph-fuse -k ./ceph.client.admin.keyring -m 192.168.0.1:6789 ~/mycephfs
```

ADDITIONAL INFORMATION

See [Ceph FS](#) for additional information. Ceph FS is not quite as stable as the Ceph Block Device and Ceph Object Storage. See [Troubleshooting](#) if you encounter trouble.