Managing RADOS Block Device Snapshots

Objectives

After completing this section, you should be able to create and configure RADOS block devices snapshots and clones.

Enabling RBD Snapshots and Cloning

Images that use RBD format 2 support several optional features. Use the `rbd feature enable` or `rbd feature disable` commands to enable or disable RBD image features. This example enables the `layering` feature on the `test` image in the `rbd` pool.

```
[root@node ~]# rbd feature enable rbd/test layering
```

To disable the `layering` feature, use the `rbd feature disable` command:

```
[root@node ~]# rbd feature disable rbd/test layering
```

These are some of the available features for an RBD image:

RBD Image Features

Name	Description
`layering`	Layering support to enable cloning.
`striping`	Striping v2 support for enhanced performance, supported by `librbd`.
`exclusive-lock`	Exclusive locking support.
`object-map`	Object map support (requires `exclusive-lock`).
`fast-diff`	Fast diff command support (requires `object-map` AND `exclusive-lock`).
`deep-flatten`	Flattens all snapshots of the RBD image.
`journaling`	Journaling support.
`data-pool`	EC data pool support.

RBD Snapshots

RBD snapshots are read-only copies of an RBD image created at a particular time. RBD snapshots use a COW technique to reduce the amount of storage needed to maintain snapshots. Before applying a write I/O request to an RBD snapshot image, the cluster copies the original data to another area in the placement group of the object affected by the I/O operation. Snapshots do