RBD Caching Parameters

Parameter	Description	Default
`rbd_cache`	Enable RBD caching. Value=`true` | `false`.	`true`
`rbd_cache_size`	Cache size in bytes per RBD image. Value=*n*.	`32 MB`
`rbd_cache_max_dirty`	Maximum dirty bytes allowed per RBD image. Value=*n*.	`24 MB`
`rbd_cache_target_dirty`	Dirty bytes to start preemptive flush per RBD image. Value=*n*.	`16 MB`
`rbd_cache_max_dirty_age`	Maximum page age in seconds before flush. Value=*n*.	`1`
`rbd_cache_writethrough_until_flush`	Start in write-through mode until performing the first flush. Value=`true` | `false`.	`true`

Run `ceph config set client` *`parameter value`* command or `ceph config set global` *`parameter value`* command for client or global, respectively.

Note

When using `librbd` with Red Hat OpenStack Platform, create separate Cephx user names for OpenStack Cinder, Nova, and Glance. By following this recommended practice, you can create different caching strategies based on the type of RBD images that your Red Hat OpenStack Platform environment accesses.

Tuning the RBD Image Format

RBD images are striped over objects and stored in a RADOS object store. Red Hat Ceph Storage provides parameters that define how these images are striped.

RADOS Block Device Image Layout

All objects in an RBD image have a name that starts with the value contained in the RBD Block Name Prefix field of each RBD image and displayed using the `rbd info` command. After this prefix, there is a period (.), followed by the object number. The value for the object number field is a 12-character hexadecimal number.

```
[root@node ~]# rbd info rbdimage
rbd image 'rbdimage':
 size 10240{nbsp}MB in 2560 objects
 order 22 (4 MiB objects)
 snapshot_count: 0
 id: 867cba5c2d68
 block_name_prefix: rbd_data.867cba5c2d68
 format: 2
 features: layering, exclusive-lock, object-map, fast-diff, deep-flatten
```