Lab

Configuring Red Hat Ceph Storage

In this review, you configure a Red Hat Ceph Storage cluster using specified requirements.

Outcomes

You should be able to configure cluster settings and components, such as pools, users, OSDs, and the CRUSH map.

Before You Begin

If you did not reset your classroom virtual machines at the end of the last chapter, save any work you want to keep from earlier exercises on those machines and reset the classroom environment now.

Important

Reset your environment before performing this exercise. All comprehensive review labs start with a clean, initial classroom environment that includes a pre-built, fully operational Ceph cluster. All remaining comprehensive reviews use the default Ceph cluster provided in the initial classroom environment.

As the `student` user on the `workstation` machine, use the `lab` command to prepare your system for this exercise.

This script ensures that all cluster hosts are reachable.

```
[student@workstation ~]$ lab start comprehensive-review2
```


Specifications

- Set the value of `osd_pool_default_pg_num` to `250` in the configuration database.
- Create a CRUSH rule called `onhdd` to target HDD-based OSDs for replicated pools.
- Create a replicated pool called `rbd1` that uses the `onhdd` CRUSH map rule. Set the application type to `rbd` and the number of replicas for the objects in this pool to five.
- Create the following CRUSH hierarchy. Do not associate any OSD with this new tree.

```
default-4-lab        (root bucket)
    DC01             (datacenter bucket)
        firstfloor   (room bucket)
            hostc    (host bucket)
        secondfloor  (room bucket)
            hostd    (host bucket)
```

- Create a new erasure code profile called `cl260`. Pools using this profile must set two data chunks and one coding chunk per object.