Lab

Creating Object Storage Cluster Components

In this lab, you will create and manage cluster components and authentication.

Outcomes

You should be able to create and configure BlueStore OSDs and pools, and set up authentication to the cluster.

Before You Begin

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

```
[student@workstation ~]$ lab start component-review
```

This command confirms that the hosts required for this exercise are accessible.

Instructions

1. Log in to `clienta` as the `admin` user. Create a new OSD daemon by using the `/dev/vde` device on `serverc`. View the details of the OSD. Restart the OSD daemon and verify it starts correctly.
2. Create a replicated pool called `labpool1` with 64 PGs. Set the number of replicas to 3. Set the application type to `rbd`. Set the `pg_auto_scale` mode to `on` for the pool.
3. Create an erasure code profile called `k8m4` with data chunks on 8 OSDs (`k=8`), able to sustain the loss of 4 OSDs (`m=4`), and set `crush-failure-domain=rack`. Create an erasure coded pool called `labpool2` with 64 PGs that uses the `k8m4` profile.
4. Create the `client.rwpool` user account with the capabilities to read and write objects in the `labpool1` pool. This user must not be able to access the `labpool2` pool in any way.

   Create the `client.rpool` user account with the capability to only read objects with names containing an `rgb_` prefix from the `labpool1` pool.

   Store the key-ring files for these two accounts in the correct location on `clienta`.

   Store the `/etc/profile` file as the `my_profile` object in the `labpool1` pool.
5. Return to `workstation` as the `student` user.

Evaluation

Grade your work by running the `lab grade component-review` command from your `workstation` machine. Correct any reported failures and rerun the script until successful.

```
[student@workstation ~]$ lab grade component-review
```