

► Guided Exercise

Performing Cluster Maintenance Operations

In this exercise, you will perform maintenance activities on an operational Red Hat Ceph Storage cluster.

Outcomes

You should be able to add, replace, and remove components in an operational Red Hat Ceph Storage cluster.

Before You Begin

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

```
[student@workstation ~]$ lab start cluster-maint
```

This command confirms that the hosts required for this exercise are accessible and stops the `osd.3` daemon to simulate an OSD failure.

Instructions

- 1. Log in to `clienta` as the `admin` user and use `sudo` to run the `cephadm` shell.

```
[student@workstation ~]$ ssh admin@clienta
[admin@clienta ~]$ sudo cephadm shell
[ceph: root@clienta /]#
```

- 2. Set the `noscrub` and `nodeep-scrub` flags to prevent the cluster from starting scrubbing operations temporarily.

```
[ceph: root@clienta /]# ceph osd set noscrub
noscrub is set
[ceph: root@clienta /]# ceph osd set nodeep-scrub
nodeep-scrub is set
```

- 3. Verify the Ceph cluster status. The cluster will transition to the `HEALTH_WARN` status after some time.

```
[ceph: root@clienta /]# ceph health detail
HEALTH_WARN noscrub,nodeep-scrub flag(s) set; 1 osds down; Degraded data
redundancy: 82/663 objects degraded (12.368%), 14 pgs degraded
[WRN] OSDMAP_FLAGS: noscrub,nodeep-scrub flag(s) set
[WRN] OSD_DOWN: 1 osds down
osd.3 (root=default,host=serverd) is down
```