

- The `serverc`, `serverd`, and `servere` nodes comprise an operational 3-node Ceph cluster. All three nodes operate as a MON, a MGR, and an OSD host with three 10 GB collocated OSDs.

**Warning**

The parameters used in this exercise are appropriate for this lab environment. In production, these parameters should only be modified by qualified Ceph administrators, or as directed by Red Hat Support.

- 1. Log in to `clienta` as the `admin` user. Create a new pool called `testpool`, set the PG autoscale mode to `warn`, reduce the number of PGs, and view the health warning messages. Set the PG autoscale mode to `on` again, and then verify the number of PGs and that cluster health is ok again.

- 1.1. Connect 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 /]#
```

- 1.2. Create a new pool called `testpool` with the default number of PGs.

```
[ceph: root@clienta /]# ceph osd pool create testpool
pool 'testpool' created
```

- 1.3. Verify the cluster health status and the information from the PG autoscaler. The autoscaler mode for the created pool `testpool` should be `on` and the number of PGs is 32.

```
[ceph: root@clienta /]# ceph health detail
HEALTH_OK
[ceph: root@clienta /]# ceph osd pool autoscale-status
```

POOL	RATIO	EFFECTIVE RATIO	BIAS	PG_NUM	NEW PG_NUM	RATE	RAW CAPACITY	AUTOSCALE	RATIO	TARGET
device_health_metrics			0			3.0	92124M		0.0000	
		1.0		1		on				
.rgw.root			1323			3.0	92124M		0.0000	
		1.0		32		on				
default.rgw.log			3702			3.0	92124M		0.0000	
		1.0		32		on				
default.rgw.control			0			3.0	92124M		0.0000	
		1.0		32		on				
default.rgw.meta			0			3.0	92124M		0.0000	
		4.0		8		on				
testpool			0			3.0	92124M		0.0000	
		1.0		32		on				

- 1.4. Set the PG autoscale option to `off` for the pool `testpool`. Reduce the number of PGs to 8. Verify the autoscale recommended number of PGs, which should be 32. Verify that the cluster health is OK.