- The `ceph pg dump` command displays the last light and deep scrubbing occurrences in the LAST_SCRUB and LAST_DEEP_SCRUB columns.
- The `ceph pg scrub` *`pg-id`* command schedules a deep scrub on a particular PG.
- The `ceph pg deep-scrub` *`pg-id`* command schedules a deep scrub on a particular PG.

Use the `ceph osd pool set` *`pool-name parameter value`* command to set these parameters for a specific pool.

Pool Parameters for Scrubbing

You can also control light scrubbing and deep scrubbing at the pool level with these pool parameters:

`noscrub`
: If set to `true`, Ceph does not light scrub the pool. The default value is `false`.

`nodeep-scrub`
: If set to `true`, Ceph does not deep scrub the pool. The default value is `false`

`scrub_min_interval`
: Scrub no more often than the number of seconds defined in this parameter. If set to the default 0, then Ceph uses the `osd_scrub_min_interval` global configuration parameter.

`scrub_max_interval`
: Do not wait more than the period defined in this parameter before scrubbing the pool. If set to the default 0, Ceph uses the `osd_scrub_max_interval` global configuration parameter.

`deep_scrub_interval`
: The interval for deep scrubbing. If set to the default 0, Ceph uses the `osd_deep_scrub_interval` global configuration parameter.

Trimming Snapshots and OSDs

Snapshots are available at the pool and RBD levels. When a snapshot is removed, Ceph schedules the removal of the snapshot data as an asynchronous operation known as *snapshot trimming*.

To reduce the impact of the snapshot trimming process on the cluster, you can configure a pause after the deletion of each snapshot object. Configure this pause by using the `osd_snap_trim_sleep` parameter, which is the time in seconds to wait before allowing the next snapshot trimming operation. The default value for this parameter is 0. Contact Red Hat Support for further advice on how to set this parameter based on your environment settings.

Control the snapshot trimming process using the `osd_snap_trim_priority` parameter, which has a default value of 5.

Controlling Backfill and Recovery

Controlling backfill and recovery operations is necessary to limit the impact of these operations and to preserve cluster performance.

Backfill occurs when a new OSD joins the cluster or when an OSD dies and Ceph reassigns its PGs to other OSDs. When such events occur, Ceph creates object replicas across the available OSDs.

Recovery occurs when a Ceph OSD becomes inaccessible and comes back online, for example due to a short outage. The OSD goes into recovery mode to obtain the latest copy of the data.

Use the following parameters to manage the backfill and recovery operations: