



PROFESSIONAL SERVICES TECH NOTE #037

Snapshot Retention Policy

The Concept

The snapshot reserve sets the minimum percentage of volume space to be used for snapshot data. A Snapshot retention policy determines how long the scheduled Snapshots in the reserve are kept before being automatically deleted (manually created snapshots require manual deletion).

Examples

Three values must be defined to establish a retention policy: 1) number of weekly snapshots to keep 2) number of nightly snapshots 3) number of hourly snapshots.

```
fas1> snap sched UserHomes 2 7 12@6-18
```

Keep 2 weekly, 7 nightly and 12 hourly snapshots. Snapshots are taken every hour from 6 AM to 6 PM.

```
fas1> snap sched UserHomes 0 14 52@6-18
```

Retain 0 weekly, 10 nightly, and 52 hourly snapshots. This example retains more nightly and hourly snapshots to provide greater granularity in restore options for two weeks than the first example.

What It Means To You

The more snapshots you keep, the more online restores you can perform before resorting to second tier disk storage and/or tape backup. NetApp recommends keeping two weeks of Snapshots because studies have shown over 90% of restore requests are made within two weeks. You can keep 255 snapshots for a volume but should never exceed 240 to allow for replication snapshots (SnapMirror, SnapVault, SnapManager, FlexClone, etc.)

When creating your retention policies plan for the worst case scenario – you're out of town on a 4 day weekend and the backup/ replication process fails the first night. This may require increasing the snapshot reserve so factor the space used against the importance of recovering lost or corrupted data and the time to recover from offline storage. At least make a habit of extending retention policies during long absences from the office. When you return and reduce the policy, Data ONTAP will automatically delete the 'extra' Snapshots.

If you need to keep more than 255 snapshot copies, (e.g. to keep 1 year of online backups), you can copy or clone a volume and rename the original volume and point clients and SnapMirror/SnapVault to the new volume.

Finally, all new volumes inherit the Snapshot schedule from the root volume so save yourself some work by applying the most frequently used schedule and retention policy to the root volume.

More Information

Refer to the Data ONTAP Data Protection Online Backup and Recovery Guide for more information:

<http://now.netapp.com/NOW/knowledge/docs/ontap/rel732/html/ontap/onlinebk/frameset.html>

Brought to you by NetApp Americas Professional Services

Send comments, corrections & suggestion to Michael Cope at mcope@netapp.com
Tech Note archive: http://communities.netapp.com/community/products_and_solutions?view=documents