restic Encrypted backups

Files your data → `backup` → **Snapshot** deduplicated, encrypted → `forget` → **Unreferenced data** still in repo → `prune` → **Space freed** repo shrinks

CONCEPTS

Set RESTIC_REPOSITORY and RESTIC_PASSWORD_FILE once, then every command works without -r.

Every snapshot is a full view, but identical chunks are stored once, so repeated backups are small and fast.

Lose the password and the data is gone: there is no recovery. Store it separately from the repo.

REPOSITORY

restic init
Create a new repository

restic -r *<repo>* *<command>*
Select a repository for one command

export RESTIC_REPOSITORY=*<repo>*
Set the default repository

export RESTIC_PASSWORD_FILE= *<file>*
Read the password from a file

REPOSITORY (cont.)

--password-command "*<cmd>***"**
Get the password from a command

restic -r sftp:*<user>*@*<host>*:*<path>* **init**
Repository over SFTP

restic -r s3:https://*<host>*/*<bucket>* **init**
S3-compatible repository

restic -r rest:https://*<host>*:8000/ **init**
Repository on a REST server

restic -r rclone:*<remote>*:*<path>* **init**
Any backend via rclone

restic key list
List repository passwords

BACKUP

restic backup *<path>*...
Back up paths into a new snapshot

restic backup -n -v *<path>*
Dry run, show what would be added

restic backup --exclude "*<pattern>***"** *<path>*
Skip matching files

BACKUP (cont.)

restic backup --exclude-file *<file>* *<path>*
Read exclude patterns from a file

restic backup --tag *<tag>* *<path>*
Label the snapshot

restic backup --one-file-system *<path>*
Stay on one filesystem

restic backup --exclude-caches *<path>*
Skip dirs marked CACHEDIR.TAG

restic backup --files-from *<file>*
Read the path list from a file

SNAPSHOTS

restic snapshots
List snapshots

restic ls latest
List files in a snapshot

restic find *<pattern>*
Search all snapshots for a file

restic diff *<id1>* *<id2>*
Compare two snapshots

restic forget *<id>*
Remove one snapshot

RESTORE

restic restore *<id>* **--target** *<dir>*
Restore a snapshot

restic restore latest --target *<dir>*
Restore the newest snapshot

restic restore latest:*<subdir>* **--target** *<dir>*
Restore only one subfolder

restic restore *<id>* **--include "***<path>***" --target** *<dir>*
Restore only matching files

restic dump latest *<file>*
Print one file to stdout

restic mount *<dir>*
Mount the repo via FUSE

fusermount -u *<dir>*
Unmount (or press Ctrl+C)

RETENTION

restic forget --keep-last *<n>*
Keep the n newest snapshots

restic forget --keep-daily *<n>* **--keep-weekly** *<n>* **--keep-monthly** *<n>*
Tiered retention policy

RETENTION (cont.)

restic forget --keep-within 30d
Keep everything of recent days

restic forget --dry-run *<keep-flags>*
Preview what would be removed

restic forget --prune *<keep-flags>*
Forget and reclaim space

restic prune
Delete unreferenced data

restic prune --dry-run
Preview prune

MAINTENANCE

restic check
Verify repo structure

restic check --read-data
Read and verify all pack data

restic check --read-data-subset 10%
Verify a random share of data

restic unlock
Remove stale locks

restic copy --from-repo *<src>* *<id>*
Copy snapshots to another repo