

Thoughts on Cloud Backup Services for Linux and Windows

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<http://www.rootcentral.org/documents/CloudBackup.pdf>

Backup Planning

- Backup planning is really **recovery** planning.
- The primary questions are **when** and **what** will you want to recover.
- Those lead you to **how** you will recover (and therefore back up).

Backup Planning: When to Recover

- Deleted / corrupted file(s)
 - Limited scope, e.g. one file or directory
- Malware (virus, spyware, etc.)
 - Operating system and/or data
- Failed hard disk
 - Entire contents of disk
- Theft / fire / flood / etc.
 - Entire site may be compromised.

Backup Planning: What to Recover

- Restore individual files or directories
 - Backup and restore are easy
 - Time and space varies with amount of data
- Reinstall system and restore data directories
 - Stretching a data backup to cover additional scenarios
 - Recovery is time-consuming and error-prone.
- Whole disk / system restore (“bare metal”)
 - Faster and more complete system recovery

Backup Planning: How to Back Up

- Removable media
 - Thumb drive
 - External hard drive
- External system
 - On-site computer
 - Off-site computer
- Cloud storage / backup service

Backup Planning: More Considerations

- Off-site storage
 - Protection from site disasters
 - But... consider recovery time!
- Generations (retention of multiple backups)
 - Protects from both delayed discovery of problems and flawed media
- Heterogeneity (multiple backup types)
 - Protects from a flawed process

Backup Planning: Auditing

- Perform a test recovery regularly.
- If a backup isn't tested, it doesn't exist!

My Backup Plan

- Disk “clone” about every six months
 - Timed to precede OS upgrade
 - Standard SATA hard drive in cradle
 - Use Clonezilla (or Redo Backup?)
 - Clone taken off-site (to office)
- Continuous backup to cloud service
 - Data and profile directories only

Cloud Backup: Some Considerations

- Personal vs. business use
- Pricing (fixed, transfer / storage based, etc.)
- Space and file size limits
- Deduplication, delta updating
- Encryption / privacy
- Open file / VSS support
- File versioning / deletion options

Cloud Backup: Some Considerations

- Other features (filesystem integration, syncing, local backups, seeding, bulk restore)
- Access (local client, other PCs, web)
- Resource usage (CPU, memory, bandwidth)
- Interface
- Scheduling options
- Support

Cloud Backup Services I Tried

- JungleDisk
- SpiderOak
- CrashPlan+

JungleDisk

- Rackspace Cloud Files or Amazon S3
- Starts at \$2 / month + \$0.15 / GB storage
- Backup and restore worked well for a while
- Stopped working under Linux, and Tech Support was unhelpful
- Currently using corporate plan for company's remote workstations and a server

SpiderOak

- “Zero knowledge” (high privacy)
- Syncing and sharing
- 2GB free, +\$10 / month / 100GB
- Unlimited devices
- Interface not very responsive
- Platform issues
- Hammered my CPU!

CrashPlan

- Free client for local and peer-to-peer backup
- Multiple destinations
- Granular control over file versioning
- Multi-level encryption
- Regular integrity checks on archive
- Seeding
- Proprietary archive format

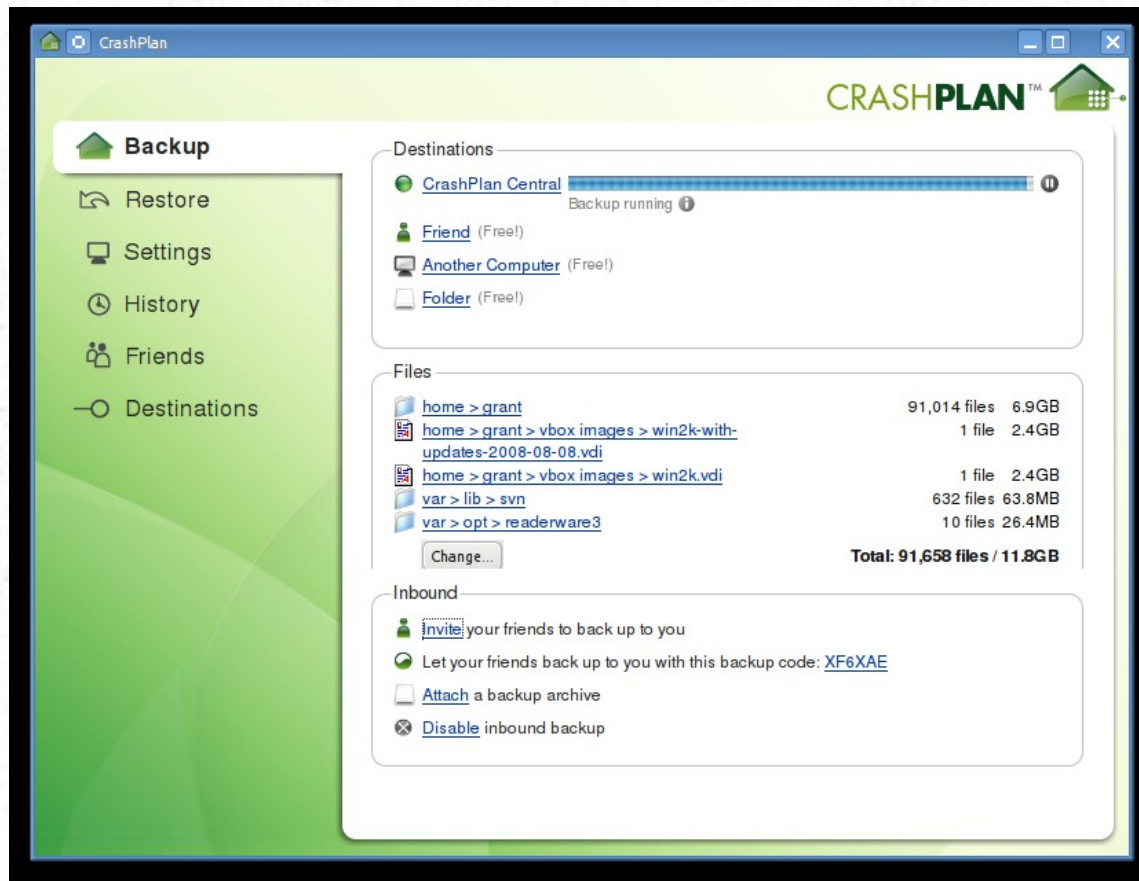
CrashPlan+

- Adds cloud storage, backup sets, ad-free interface, web access, bulk restore
- Starts at \$2 / month / computer for 10GB
- Unlimited: \$4 / month / computer
- Family Unlimited: \$9 / month / 10 computers
- Working well so far: lowish CPU usage

Resources

- 26 Online Backup Services Reviewed
(http://pcsupport.about.com/od/maintenance/tp/online_backup_services.htm)
- 2013 Online Backup Services Comparisons and Reviews
(<http://online-backup-services-review.toptenreviews.com/>)
- The Cloud Reviewer
(<http://www.thecloudreviewer.com/>)

Demo: Installing CrashPlan



Questions?

