

Storage for Backup

Computers have become an integral part of our lives as we use them to process a huge amount of very important data. They are not perfect though: hard disks can fail and file-systems can become corrupted. On the top of it, users can accidentally delete files. To effectively protect our data, we should think of implementing an efficient backup solution, based on reliable storage.

Storage for backup is a physical device to which our data are copied and stored on, for a specified period of time. To create backups we can use file sharing protocols (SMB, NFS, FTP) or iSCSI protocol. Additionally, data replication will let us schedule tasks for copying data to other areas (on a file-level).

Storage for backup must be safe and should ensure that our data will be restored if any hardware failure occurs.

Hardware

Storage hardware used for backup purposes does not need to focus on high performance. The priority should be the safety of stored data. Here are the general hardware requirements:

- A server platform with a dual-core CPU can be used for low power consumption
- H/W RAID controller with support for RAID5 or RAID6 for data safety and high capacity
- SATA drives can be used for low cost
- Multiple 1GbE NICs for connections to multiple subnetworks
- A large number of SATA/ATA/SAS drives for large capacity

Software

Software managing storage for backup solutions should not only be reliable. Equally important are: ease of use, and flexibility. These are the general requirements for software:

- Web-based graphical user interface for comfortable configuration and maintenance
- Support for SAS/SATA RAID Controllers for large capacity and data safety
- Support for iSCSI, SMB, FTP or NFS protocol
- Data (file) replication for data synchronization between the workstations and storage for backup

We recommend both [Open-E DSS V7](#) and Open-E DSS V6 for building an effective storage for backup purposes.