TECHNICAL BRIEF: 4BIG RACK OFFICE RAID

This Technical Brief is a valuable resource to learn how the RAID (Redundant Array of Independent/Inexpensive Disks) for your LaCie professional server is configured. In the pages that follow, you will find detailed information on how the RAID array on your LaCie 4big Rack Office will appear and how best to manage it.

ADMINISTRATOR

In order to review, confirm, or redefine the software settings on your LaCie professional server, you must have Administrative rights to the device.

RAID

An early question when first integrating a server is:

What type of RAID array(s) will provide the best data protection and performance?

LaCie understands that the response is a fine balance between storage capacity and the needs of an office. The 4big Rack Office RAID has been implemented using Windows® Home Server 2011 for optimal performance and security in most business environments:

- Mirroring (RAID 1): Data is copied to two or more drives in a mirrored set. Should a single disk fail, data will be available to users on the network. Mirroring provides solid data protection though storage capacity and performance will be reduced. A minimum of two disks are required to create a mirror.
- RAID 5: Data is written across all disks using parity blocks. Similar to RAID 1, data integrity is maintained even if one drive fails. However, RAID 5 offers a more efficient use of storage capacity and enhanced performance when compared with RAID 1. Your LaCie professional server must have at least three hard drives to configure RAID 5.

For a full explanation of RAID, please see our [White Paper](#).

> **Important info:** Revising and building RAID arrays will delete all data stored on the hard drives.

LACIE RAID CONFIGURATIONS AND WINDOWS® BACKUP

LaCie recommends backing up all data, including files stored on traditional backup servers such as the 4big Rack Office. The 4big Rack Office has a helpful wizard to configure automated backups from your server to desktop attached storage (DAS). A DAS can connect to one of the USB 2.0 ports found on the rear of the server. In most instances, businesses and IT professionals have considered their unique environment for backing up data so this Technical Brief will not offer additional details on the logistical requirements for maintaining data in one or more sites.

However, it is important to note the limitations for backing up data beyond a fixed storage capacity. Please keep in mind that the Windows Backup Wizard will not allow you to backup data from a volume that is **greater than**

2TB. Since the majority of businesses and IT professionals take advantage of commercial and private backup solutions, the default RAID configurations found in this Technical Brief include volumes greater than 2TB. If you do not have an alternative backup solution for your 4big Rack Office and would like to use the wizard, please see RAID - Creating Multiple Volumes (Optional).

For further information on the 2TB volume limitation with the Windows Backup Wizard, please see the links below:

Repartition a hard drive on the server