

What is the Best Backup Strategy for your Server?

A report on the current options for backing-up and restoring server data

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Backing up in 2012...

Today, there is a strong trend in the computer industry away from backing up to tape and towards backing up to disk. There are five main reasons for this:

- In our experience, every tape backup drive fails at some point in its life. And when it does it's a stressful time for all diagnosing the problem, convincing the manufacturer that its faulty and putting in place an interim solution until the replacement tape drive is installed;
- The ever-increasing amount of data stored on a server means the time taken to back it all up onto tape is increasing. Sometimes the "backup window" continues into the working day, slowing down network performance for everyone. This problem gets even bigger when there is more than one server or when the amount of data grows over time and it no longer fits onto one tape;
- Swapping tape cartridges on a daily basis involves a human process, and is thus prone to forgetfulness and mistakes;
- These days, disk drives are not only *cheaper* than tape drives devices, they're also far more reliable over the long term; and
- Restoring data from tape will always be a clumsy, tedious, slow and mistake prone process. And all at the exact point in time when there's pressure on to get everything operational again as soon as possible.

In a nutshell, the backup process and the restore process is a lot faster, a lot simpler and a lot safer with disk drives than it is with tape drives.

Today's best server backup strategy

We think the best backup strategy available today is a 2-step process based on the principle of BUDR (**B**ackup **U**p, **D**isaster **R**ecovery, often pronounced bud-r):

1. BU – protecting against critical hardware or software failure by backing up to a network storage unit that is directly connected to the network; and then
2. DR – protecting against a disaster event like theft or fire by backing up from that disk sub-system to an external source – either across the internet to a physically separate location, or to removable hard drives that are then manually taken off-site daily.



NetCare Remote Backup (powered by Acronis)

NetCare Remote Backup is a comprehensive backup and recovery service that ensures backups are done consistently and reliably. It provides regular backups of your server every night, so that the amount of data potentially lost is always minimized. This is complemented by an overnight backup of changes in your data across the internet to a secure offsite location (for instance your branch office server or a NetCare-approved third party backup provider). The whole backup process is monitored by our system and automatic alerts are generated if any problems occur.

This effectively means you've got two restore options available to you at all times – the on-site copy and the off-site copy.

We believe NetCare Remote Backup is the “absolute best” backup option. But, it can only be used when there is an SHDSL (synchronous) internet plan in place – the upload speeds of an ADSL plan are simply not fast enough to back up the amount of data that is stored on a server. Pricing for these faster internet plans have come down significantly over the last 12 months, and with the NBN rollout in the years to come, this option will become more and more viable.

NetCare Onsite Backup (powered by Acronis)

If the only cost-effective option for internet access at your location is an ADSL link, then our “second best” option is NetCare Onsite Backup. We still backup your servers every night so there is always an onsite disk backup available. But for the second step, instead of backing up across the internet, we backup to a series of external drives.

These drives are then swapped out every day by a trustworthy employee who also takes responsibility for taking the external disk media off-site, just like they may well do now with tapes. The big advantage over your current tape-based solution though is that even if tapes don't get swapped over every day, a backup is still done every night to the onsite disk system.

The price for peace of mind

Both NetCare Remote Backup and NetCare Onsite Backup are provided as a service and can be cancelled at any time. The monthly service fee is \$33, and includes all monitoring, configuration changes and software upgrades.

Additional off-site storage fees typically apply for NetCare Remote Backup, whilst our clients also need to purchase the appropriate removable disk drives for NetCare Onsite Backup. An indicative price for our standard disk backup hardware solution is \$1600, including installation.



Frequently Asked Questions (FAQs)

Q: For NetCare OnSite Backup, what happens if the staff member forgets to swap the external drive?

A: Because it's a two step operation, the day's data is still backed up so you are still fully protected against a hardware failure.

Q: What data is backed up each day?

A: A full backup is done one day per week, and then daily incremental backups are performed for the next 6 days.

Q: How many days of data are stored on-site?

A: If space on the disk sub-system permits we recommend keeping three full backups onsite, extending back 21 days.

Q: What happens if a file is accidentally deleted and we don't realize for some time?

A: All files deleted since the earliest full weekly backup can be recovered from the on-site disk backup. If the recommended three full backups are kept, this means up to 21 days.

Q: For NetCare Onsite Backup, how many external drives do we need?

A: As a minimum, we recommend one drive for each working day (so either 5 or 7). We also recommend one full backup be done each month, and that this external drive then be permanently archived off-site.