

Backup Strategies & Disaster Recovery

As a manager responsible for your company's computer system, what's the worst possible nightmare situation that could happen?

Without a doubt, that would have to be a computer disaster where irretrievable data loss results from an event that was in your control! Having made this statement, I would like to further say that it is the responsibility for every computer manager to research and implement a backup strategy that **PREVENTS DATA LOSS** and **ENSURES THE ABILITY TO RECOVER AFTER A DISASTER!**

What could be worse scenario than trying to explain to your boss why inadequate safeguards were in place after a disaster?

CAPACITY PLANNING:

The first step in disaster prevention is to define your requirements! There are two basic designs for backup: centralized and decentralized. Both methods have advantages and disadvantages and effect capacity planning. Budget and personnel constraints frequently push a decision towards centralized verses decentralized backup simply because an organization does not have enough qualified system operators to administer backups! On the other side of the coin, network constraints can push a decision towards decentralized backups due to lack of sufficient bandwidth to perform network backups. Designing and implementing the right hardware and software solution is the key to a successful backup and disaster recovery strategy.

HARDWARE:

Buying appropriate hardware and software for backup is important but not always a critical element in a backup strategy. The choices of hardware are often limited by budget. My advice is to always buy a bigger, faster tape drive that what you think you need now. It's amazing how fast you can out grow a tape drive. A good example of this is the difference in capacity and speed between DDS-2 and DDS-3 4MM technology. DDS-2 drives offer 4GB native capacity with up to 510KB a second operation. The newer DDS-3 drives offer 12GB native capacity with 1.2MB a second operation! With smart shopping, the cost differential is less than \$300 bucks between the drives! Why pay \$1,200 hundred for lesser capacity and speed when \$1,500 buys you top of the line? It's a false economy to buy a DDS-2 drive with 9GB hard drives getting cheaper by the week.

SOFTWARE:

It's probably an accurate statement to say that just about every backup application available will do an adequate job for backup; however, not every backup application is equal when comparing disaster recovery operation! Too frequently, backup shoppers pay more attention to the backup process instead of focusing on how easy and how fast is it to restore a down system. Backup happens every night – no one really looks at it when things are going right – it's only when a critical restore is required does inadequacies become glaringly obvious! My advice is to look past the interface and determine if the backup program offers easy to use, flexible operation with all the functions & features necessary. In today's market, backup software must offer both traditional file-by-file backup and the latest "image" technology. Only by combining the two technologies does an organization get the best of both worlds! A file-by-file backup goes through the operating system with guaranteed file integrity. An image backup bypasses the operating system and does a bit level backup of a hard drive. The later is perfect for quickly restoring a failed operating system hard drive, upgrading a hard drive to a larger size and cloning new systems but ill advised for backing up key files like relational databases.

