

# *Backup 104*

## Improving Your Backup Routine

### *Your Data Is Worth The Extra Effort*

Backing up data in the small to midsized enterprise is more than setting a backup job and moving on to other priorities. In fact, if you talk with any data backup expert, you'll learn that backups should be at the top of your priority list. And the experts say there's always room for improvement in most cases. Here we'll take a look at a few tips to help you improve your backup routines.

#### **Begin With Basics**

Start with disk-to-disk backup software rather than individual copying data from one disk to another. Disk-to-disk backup software makes sector-based images of a system hard drive and/or individual partitions of your choice. It is more affordable than traditional tape backup and less cumbersome to set up and continually maintain. The reliability and speed to successfully recover a crashed system is also improved.

You should also be configuring automatic backup schedules to capture periodic updates. You should schedule differential backups on a daily basis (at a bare minimum) to quickly update a complete static base image. This ensures you are backing up the most current system configuration and changes to data files and removes the individual process, along with the chance that you'll forget to do it. Differentials require less storage space than a complete backup and complement it for quick and complete recovery. With an automatic backup schedule, you can store multiple differentials, one for each day of the week-if needed, which gives you flexibility to choose the point in time that you wish to recover.

On top of backup automation, it's also important to make a bootable recovery CD image on removable media or storage. For those times when your hard drive crashes or Windows simply will not boot, a recovery CD is the quickest way to restore a system because it's

self-contained and provides access to restore an existing backup image. This saves time and service calls (fees) from having to reinstall the OS, applications, and settings and transfer data files back to a newly restored system.

#### **Choose Your Backup Solution Wisely**

Vendor requirements sometimes trump existing backup environments. It is important to choose a backup solution that conforms to your environment, not what the vendor wants you to conform to. It is important to choose a vendor that is easy to work with and offers a solution that works with your existing environment, including your operating systems and range of hardware, and gives you the choice to back up to disk or tape.

It is also important to pick a solution that is easy to use and can scale with your growth. Also, try to select a system that gives you maximum flexibility if you should need to have a different backup server operating system platform in the future.

#### **Employ Serious Data Protection**

If you are going to protect your data, you should consider high-performance data protection for your business-critical applications, such as Exchange and SQL Server. He explains, "Email, applications, and data have a direct bearing on your ability to generate revenue and provide high levels of service for your customers. It is crucial to focus on data protection in these environments with the ability to quickly recover business-critical applications and data. The cost of downtime can be detrimental, especially with the high cost of data stored inside critical applications and databases. You should look for solutions that offer protection specifically for Exchange, SQL Server, or other database and messaging systems.

Purpose-built backups are the way to go. There is a multitude of backup products available ranging from the very basic file-based backups to sophisticated image-based tools that can protect entire servers. However, sometimes you need to protect specific applications. While a server-based tool will restore an entire system, purpose-built tools for Microsoft Exchange, Microsoft SQL Server, and other mission-critical applications can provide far more selective

backups and get those specific applications running more quickly than general-purpose tools.

*Remember, **speed** is everything when you are creating and restoring backups.*



### **A Little More Extra Effort -Tips**

#### **Create multiple partitions on your hard drive.**

As a relatively easy way to organize your storage space, set up individual partitions for storing your data files. When setting up your backup schedule, partitions will be easier to manage and will minimize the resources involved

**Defragment your hard drive.** By doing this, you are optimizing your system's performance, which can result in improved timing when making or restoring backups. Defragmenting your hard drive also maximizes the space you can allocate for backup archives.

### **Best Tip - Ensure Smooth Restores**

*Backup is simple, but recovery can be hard.*

Stephen Lawton, senior director of strategic marketing at Acronis ([www.acronis.com](http://www.acronis.com)), says backup technology has been around for years and is generally considered one of the check-off items for every data center, large or small. But backup is only the beginning, he says. "There is no value to a backup that cannot be restored. Make sure that when you create an image of your server or even a workstation, you can restore it to any hardware.

Remember, *it's almost impossible to get identical hardware* (motherboards, processors, memory, etc.), so don't plan on that event.

*Instead, ensure that you can restore to any hardware.*