

TITLE – Tape Backups: Your Setup & Configuration Make a Difference
AUTHOR – Alicia A. Slade
PUBLICATION – Legal Journal
ISSUE / DATE – June 2009

During a meeting, a prospective client told me that they had walked into their office on a Monday morning and realized that they could not login to their network because their file server was off. They were unable to restart the file server because the file server's hard drive had failed during the weekend. When their IT guy replaced the hard drive and attempted to restore all of their data, he had difficulty. He spent several days attempting to restore the data, but unfortunately, even though an attorney at the firm had been putting a tape into the tape backup drive every night, the firm lost all of their email and a very important database, which contained their cases and calendars.

I empathized with them, since the firm had lost so much data; however, this situation could have been avoided. It was apparent that the correct version of backup software had not been used to backup email and the database files correctly and that a test restore had not been performed. Additionally, the proper configuration of hard disk drives on the file server could have prevented the situation too, for example, with a RAID 5 configuration on the file server, three or more hard drives are used and if one hard drive fails, the file server continues to run and there is no data loss. With the right backup device, backup software, and rotation of storage media, there is no reason to experience loss of data on a pc or network.

You can use external hard drives, CD/DVD burners, tape backup drives, or online backups to backup data. Whether you are backing up data on a standalone pc or a file server, some sort of daily backup should be performed. Due to space constraints within this article, I will focus on tape backup drives.

For a reliable backup on a file server, you should purchase a tape backup drive that is large enough to backup all of your data onto one tape cartridge and make sure it has enough capacity for anticipated future data. Additionally, at least ten to twenty tape cartridges should be used for a two to four week (Monday-Friday) tape rotation and five additional tapes should be used as monthly backups, rotate one at the end of each month. A full backup should be performed each night, not an incremental backup, which can make restoring complicated and cumbersome. Tapes should be replaced once a year and you should purchase a cleaning cartridge and run it periodically to maintain your tape backup drive.

The tape backup software should include the correct software agents. For example, Symantec Backup Exec, which is a very good tape backup software program, has additional software agents that you purchase if you have MS Exchange Server, MS Terminal Server, MS SQL Server, Linux, Citrix, etc. These backup software agents make sure that the files are backed up correctly for the other software applications you are using. This was the problem with the prospective client's data restore. Since the backup software agents had not been installed on the file server, the IT guy was unable to restore the MS Exchange email and the MS SQL database files. Hence, they lost very valuable data.

A test restore should be performed periodically (once or twice a year) to determine if all of the files are being backed up correctly. The test restore should include a restore of an individual email mailbox. Most importantly for the tape backup process, someone should verify that the tape backup was successful every day. An email can be sent through the network with the results of the backup and/or an icon can be put on the file server to see if there were any issues with the backup from the night before. As soon as there is an issue with the tape backup, your IT person should be notified immediately.

When a tape backup drive and the tape backup software is configured and setup properly, restoring data is a seamless process.

Alicia A. Slade is the President of Plummer Slade, Inc., a computer networking firm specializing in providing computer networking and business solutions to law offices since 1988.