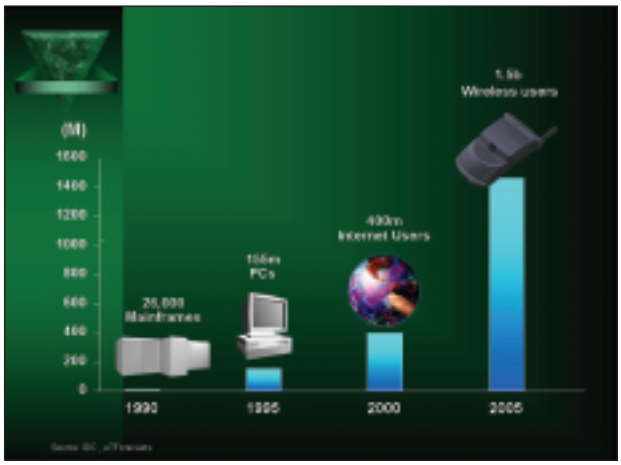
Controlling the Impact of Data Growth:

The Dollars and Sense of Online Data Backup

Companies of all sizes, in every industry, are faced with a new, yet old, technology risk - the unrelenting growth of data and the ability to appropriately archive critical data. Industry experts agree that this is not merely a trend, but rather a new reality of business and a technology risk requiring effective management control.



Access to Information Grows Exponentially

The burgeoning need to continually archive more and more digital information creates another reality: how to effectively store and protect data from theft, tampering, deterioration or accidental destruction, while at the same time managing operational costs.

Financial officers understand that having access to data is fundamental to the company's survival. Responsibility for managing risk and insuring the business can survive a temporary or sustained outage often falls on their shoulders. However, together with their IT executive teams, the two groups are working closely to protect digital data while ensuring complete availability and recoverability. Just to increase the complexity of the challenge, all of this is happening in an environment of tight fiscal constraints and limited resources.

Kelvin Walker, a Senior Manager for Clifton Gunderson's Technology Risk Services Team, knows the devastating impact to businesses when data is lost, inaccessible or not in a recoverable format. "By addressing the dual issues of data backup and data restorability early on, companies can decrease the impact and avoid the quantifiable and unimagined costs of reconstructing lost data," explains Walker

In addition, Kelvin says, "The increased risk surrounding the loss of confidential information tied to the loss of physical tape media is continuing to make local and national headlines."

He says he regularly asks his clients, "Have you ever thought about how you would react if your company was the topic of one of these events? Imagine just the time required to communicate with your clients, partners and shareholders."

Walker says a little forward-thinking and planning can mitigate the risk associated with data backup and recovery.

Fortunately, technology is rapidly developing solutions to the data crunch. One such solution is online data backup, which combines the speed and accessibility of the Internet with existing server and network infrastructures to securely and efficiently protect against data loss. Whether it is implemented as an internally managed system or as a third party service, online data backup provides a cost-effective and proven solution.

Tape Backup Has Met Its Match

Traditional tape backup methods are coming under intense scrutiny as the technology does not cost-effectively scale to meet the rapid data growth or rapid, seamless recovery requirements.

Increased data means longer backup windows, and organizations are continuing to use short-cuts to complete backup jobs within ever-shrinking time limits. The problem only intensifies with the proliferation of data-intensive, high availability applications such as web-based services (email, order processing) requiring round-the-clock availability expands. Additional complexity heightens as IT staffs are managing multiple applications across numerous platforms, in multiple locations and time zones.

"My tape backups are taking 25 hours a day to complete" is a common refrain across the industry. One manufacturing company exploring ridding itself of tape in favor of a disk-to-disk based backup solution to solve several concerns and risks. Not only were their backup windows unacceptable, making them non-compliant, they had no ability, because these constraints, to encrypt, verify and synchronize their backup data. Coincidently, most administrators are decommissioning the "verify after write" option on their tape drives to avoid the 30 to 50 percent increase in time required to complete the backup.

Tape's linear recording format takes more time to write, and to restore backup data, when compared to the random-access capability of disks. In addition, tape restore times are further slowed by having to physically obtain, locate and mount the media to find the needed information.

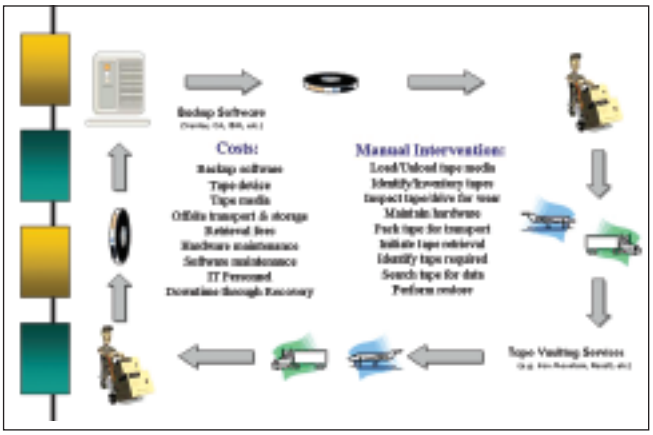
The unreliable nature and intensive management required for tape-based backup forced this company's backup administrators to create manual, error-prone processes in order to protect their data. The challenge of securing the tapes once the backup processes are complete continues to increase the risk of potential data loss in the event of tape being misplaced, lost or stolen.

With all of these issues and concerns related to tape backup scenarios, many organizations are searching for secure, lower risk solutions. Enter, online disk-to-disk backup.

How Online Backup Works

Online backup places significantly less data on storage arrays than the incremental methods used by tape-based software. It uses extremely fast and efficient processing techniques because only new or changed data blocks are compressed, encrypted and copied to hard disk. Similar to incremental backups, only new or altered files are backed up. However, once an initial, full or seed backup has been sent to the electronic storage device, every subsequent backup is the equivalent of a full backup.

Backup time is significantly reduced and the lack of manual intervention eliminates performance errors. Data remains compressed and encrypted throughout the online transmission and while stored in the electronic vault. By reducing the amounts of data required for transmission, growth of the storage volumes on the backup server are reduced, and additional disk space is required less frequently.



Tape Backup
Traditional Backup & Recovery Process

To conduct a restore in this scenario, an administrator simply accesses the graphical user interface, selects the data to restore and initiates the restoration of the data.

Online backup, often offered as a managed service, answers data backup challenges by leveraging existing server and network infrastructures to securely and efficiently protect servers against data loss. The ability to *immediately* move backup copies of data securely off-site is an additional key differentiator.

Other key benefits of online data backup include —

- Disk drives fill up at a slower pace than sequential tape file-based backup methods.
- IT personnel have the option to keep backups on disk for longer periods without incurring further expense.
- Reduced risk of media failure.
- Organizations can expect considerable cost savings due to less time and fewer resources devoted to remote office backup administration, off-site storage, retrieval and tape media management.
- Businesses do not have to invest in upgrading their IT or network infrastructure to take advantage of this service
- Unlike tape backup, where tapes can get lost or corrupted, online data is encrypted and secure during transmission.

Evaluating Vendors

Before choosing an online technology provider, an organization should quantify the provider's capabilities and cost structure. Among the capabilities needed are —

- Ability to centrally manage the backup and restore process from one or more locations.
- Spontaneous file restores 24/7/365 via an end user or central administrator control.
- No special hardware requirements or changes to your network.
- Ability to restore data either over the network or via a dedicated storage device.
- Customizable data retention schedules.
- Data encryption while data is stored on the storage array and during transmission over private or public networks.
- Automatic restart and resume capabilities for handling a variety of network conditions.
- Automatic notification of exceptions and problems encountered.
- Detailed usage reporting capabilities.
- Automated and unattended backups with the ability to backup open files and open databases.
- Availability of various compliance reports for industry standards such as SAS70, PCI, Sarbanes-Oxley, GLBA and HIPAA.

By reducing the tape backup risk through the utilization of disk-to-disk and online data backup solutions, security, reliability and centralized administration are all enhanced. Combining these benefits with the ability to scale to meet the current explosion of data growth suggests that online data backup is a clear choice for businesses and a key solution to protect financially critical data.

For more information on this topic, register for our seminar on Tuesday, May 13, 2008. For details and registration visit www.cliftoncpa.com or call Christine DeGraf at 630-368-3638.