



**SUNGARD**

## THE DOLLARS AND SENSE OF ONLINE BACKUP

White Paper Series

## IT CHALLENGES: UNRELENTING DATA

Businesses today face unrelenting data growth. IT staffs are struggling to ensure data availability under tight fiscal constraints. The time-constraints of traditional tape-based backup have forced backup administrators to create manual, error-prone processes in order to protect and recover their data. Consequently, other critical objectives, such as supporting distributed environments and complying with regulatory requirements, are not being adequately met.

Online backup, offered as a managed service, answers these challenges by leveraging existing server and network infrastructures to securely and efficiently protect servers and desktops against data loss. Its ability to immediately move backed-up copies of data securely off-site, away from any potential site disaster, is a key advantage. Greater security and reliability, and easier, more centralized administration, suggest that online backup is the right choice for businesses that must protect their business-critical data.

**According to the 2010 Forrester/DRJ survey "Wake-up Call: You Aren't Ready for a Disaster," only 37% of participants relied on tape backup for mission-critical applications, compared to 49% in 2007.**

But is online backup really more cost-effective than traditional backup methods?

In order to understand the cost advantages of online backup, it is first important to understand the challenges that businesses face in protecting their business-critical data. The reliance on data and application availability has created internal and external challenges for organizations and their IT staffs.

As data volumes grow rapidly, IT personnel are asked to manage more projects. They struggle to support more computers and people across distributed environments because of the disproportionate amount of time spent on managing backup tasks. These issues can be made worse by company expansion or acquisition when additional time and resources are needed to create, integrate and standardize new processes.

External forces add to the backup-related challenges that organizations face. Heightened awareness around business continuity and regulatory compliance have caused businesses to increase spending on their data protection activities. While compliance and headline-grabbing disasters are often credited for increased focus on business continuity, the truth remains that IT staffs must solve more common, everyday issues if they are going to maintain optimum data availability (See Table 1).

### Recovery Services and Workforce Continuity

When a disaster does strike, SunGard's Recovery Solutions cost-effectively address multiple challenges to improve availability and reduce downtime risk. Secure2Disk promotes an efficient, tiered strategy using online disk for operational recovery and shifting tape media to long-term archive retention — with a portfolio of products meeting diverse needs — small to large and simple to complex. Additionally, Workforce Continuity planning ensures that employees have the workspace, technology, and resources necessary to get back to work. With over 25,000 locations worldwide and mobile units ready to dispatch, SunGard helps to quickly get your employees and processes back on task.

Table 1: Today's Backup Problems

Traditional tape backup or even local disk-to-disk data protection is no match for these daunting challenges.

Problem	Cause
Shrinking backup windows	Proliferation of data-intensive, high-availability applications such as web-based services (email, order processing) and other applications now required for around-the-clock availability.
Rapid data growth	Data continues to grow rapidly. It is reality, not a trend. Data-intensive applications are generally the culprits.
Lack of central control over distributed systems	IT staff managing off-site backups frequently must trust untrained coworkers to conduct backup activities such as swapping out and replacing tape media. Managing redundant hardware and software components in multiple offices also adds to the complexity.
Increasing rate of recovery failure	Business continuity is jeopardized by viruses, accidental data deletion, and data corruption. As systems grow more complex, the inability to adequately recover business-critical data increases.
Human error	Accidentally deleting an email or crashing a server from overfilling a disk drive are among the human errors that represent one of the biggest causes of application downtime and data loss.

## THE PROBLEM WITH TAPE

For more than 50 years, businesses have utilized tape-based backup solutions. While advantages included low media costs and portability, tape backup increases the amount of time and effort needed to administer backup and recovery tasks.

**Slower backup and recovery speeds.** Tape's linear recording format takes more time to write and restore backup data when compared to the random-access capability of disk. Tape restore times are further slowed by having to locate and mount the media to find the needed information.

**Manual intervention required to get data off-site.** Without manual intervention, backup tapes remain in the tape drive, leaving the data vulnerable to physical events. While disk-to-disk backup (external drives, appliances) can be used to address this problem, it is only adequate for short periods of time. Ultimately, data must be moved off-site. With tapes, this is always a manual process. Disk-based backup eliminates the time and risk.

**Inability to verify backup data.** Most people do not turn on the option to "verify after write" on their tape drives because this adds 30-50 percent to the time required to complete the backup.

**No quick 24/7 access to data for recovery.** If tapes are removed from the drives to be sent off-site, there is a significant delay in those tapes returning for recovery purposes.

**Life expectancy.** The actual physical tape will start to deteriorate after a few years, and will need to be duplicated and replaced, which further adds to cost and time.

## NOW IS THE TIME FOR ONLINE BACKUP

### Mature technology, falling disk prices drive adoption

Market conditions and IT administrators' ever-growing weariness of tape backup have caused businesses to seriously consider the security, reliability, availability and scalability advantages of online backup.

Technology maturation and other market conditions have also contributed to the traction that online backup and recovery has gained. Every year, adoption of disk-based storage increases. Other market factors contributing to this adoption include:

- Regulations mandating off-site storage have superseded concerns about moving data to third-party data centers
- Regulations governing data moving across national borders
- Acceptance of encryption security methods
- The need for more aggressive recovery time objectives (RTOs) and recovery point objectives (RPOs)

### Automation provides added security layer

From a security perspective, online backup uses industry-standard encryption algorithms that eliminate



concerns about transporting data over private or public networks. In fact, security is significantly enhanced compared to manually managing tape media and engaging staff in remote locations.

Online backup centralizes resources, which improves the security and reliability of backup tasks. For larger organizations, IT staffs are centralized at their data centers, while tape backup devices and personnel tasked with managing them are located in remote offices. Online backup enables remote installation and management of agents that initiate the backup process and push backed up data to a central repository.

#### **Increased reliability drives better processes, lowers cost**

Efficient processes and improved resource centralization have made online backup a more reliable choice over tape backup. Delta-block scanning techniques, for example, minimize the volume of data traveling across the network. These techniques give businesses the equivalent of full backups in a smaller storage footprint because only new or changed data blocks are compressed, encrypted and then backed up and copied to hard disk.

Having less data to backup provides financial benefits that cascade throughout a company:

- Less data means disk drives fill up at a slower pace than with file-based full or incremental backup methods
- IT personnel have the option to keep backups on disk for longer periods without incurring financial repercussions as quickly
- Organizations can expect considerable cost savings by devoting less time to remote office backup administration, off-site storage and emergency retrieval costs and tape media management
- Businesses do not have to upgrade their infrastructure to take advantage of online backup services.

## THE DOLLARS AND SENSE OF ONLINE BACKUP

Online backup places significantly less data on storage arrays than the incremental methods used by tape-based software. Delta-block processing

techniques within online backup are extremely fast and efficient. Similar to incrementals, 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. To conduct a restore in this scenario, an administrator accesses the GUI to make a file or folder restore. Manual retrieval and assembly of full and incremental tapes are not required.

#### **Factors for evaluating vendors**

Before choosing an online technology provider, weigh the following technology and cost considerations and do not be shy about asking the tough questions. If they are to be your trusted partner, learn upfront their capabilities and cost structure.

What to look for:

- Automated and unattended backups with the ability to backup open files and open databases
- Ability to centrally manage the backup and restore process from one or more locations
- Control of files and directories to be backed up, with file-filtering capabilities
- Secure, Tier 3 or 4 facility
- Spontaneous file restores 24/7/365 via 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

## CONCLUSION

IT staffs face more challenges than ever before to keep costs in check as they service employees and customers who are increasingly dependent on data access and intolerant of downtime. A convergence of regulatory and economic drivers, as well as technical innovations has led thousands of businesses to implement online backup.

SunGard Secure2Disk powered by EVault provides businesses with the solution that best fits their needs. By controlling the growth of data being backed up, EVault customers quickly realize significant cost savings. They are also better able to support the backup and restores of remote offices and meet applicable regulatory requirements.

The IT functions in your business are complicated enough. For the business majority, adding data protection expertise as a core competency simply does not make fiscal sense. Turning that function over to the leading solution in online backup and recovery—EVault—will save you time, money and aggravation. Secure2Disk powered by EVault has the right online backup solution for companies like yours that are serious about protecting their business-critical data.

To get started, visit our website at [www.sungardas.com](http://www.sungardas.com) or call our Information Availability experts at 1-800-434-0002.

### Be Prepared

In order to bid for your business, vendors will want to know:

- Your recovery point objectives and backup window
- Detailed information on server hardware and operating system: compile a list of servers and virtual machines (VMS) to be backed up, including brand name, model number, nomenclature, and estimated amount of data storage
- Existing communication facilities connecting your locations: Internet, Frame Relay, ATM, etc.
- Firewall management: How special ports on your firewall are opened to allow backup data to travel across your network?
- Your corporate data retention schedule
- How many people will be administering the backup/restore process and where they are located
- The location of an alternate processing facility in the event of a disaster

[www.sungardas.com](http://www.sungardas.com)

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