SunGard Extends Data Availability with Secure2Disk

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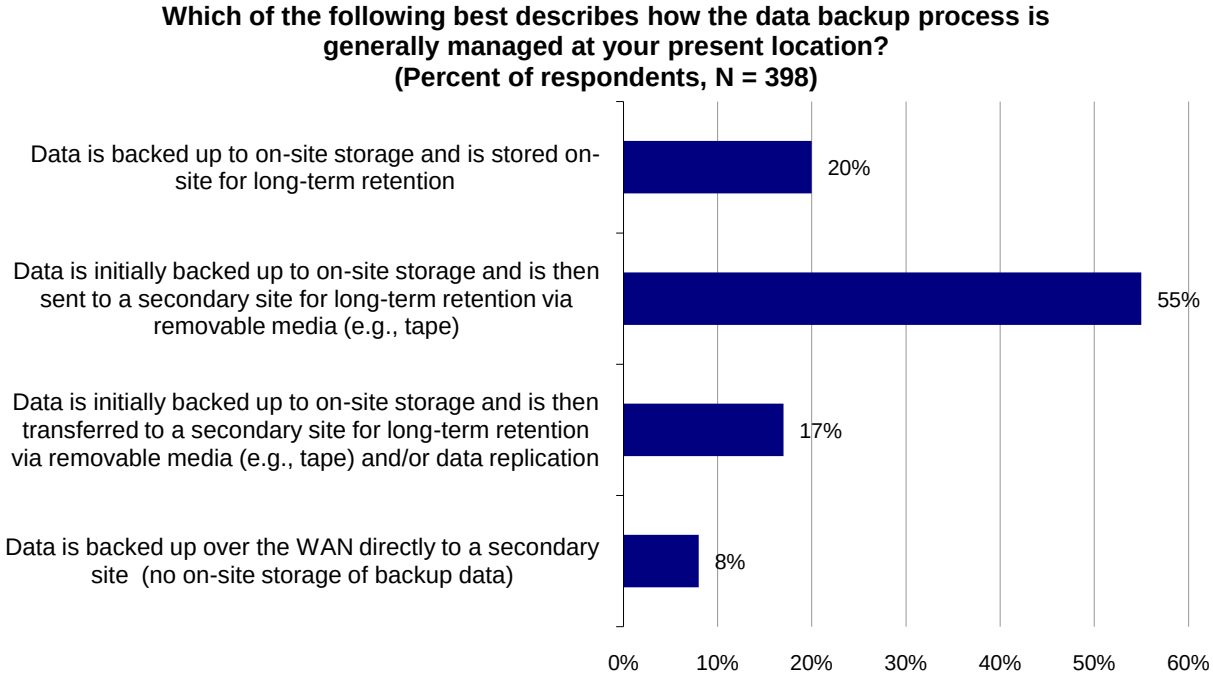
Abstract: Most organizations rely on tape-centric backup strategies at their primary site, storing backup copies off premises for disaster recovery purposes. SunGard has introduced a disk-to-disk-to-cloud backup/recovery solution that provides onsite operational recovery and rapid offsite disaster recovery at a cost that approaches tape.

Overview

ESG polled end-users about their backup processes and found that the majority (72%) back up to on-premises storage and transfer copies to a secondary site via removable tape media or replication. Twenty percent of organizations rely exclusively on onsite storage and do not move data off site for long-term retention. This riskier approach is more common among small and medium-sized businesses (SMBs) (24%) than enterprise-class organizations (15%). The remainder of respondents (8%) had an all off-premises strategy. ESG also found that 86% of respondents rely on physical tape media for backup processes, although respondents indicated a desire to shift to disk-based solutions.[1]

FIGURE 1. DATA BACKUP PROCESSES IN USE



Source: Enterprise Strategy Group, 2008

Data growth is highlighting the problems of tape-centric data protection strategies. Tape's performance and reliability issues are often the culprits in not meeting backup and recovery service level agreements (SLAs), leaving gaps in data protection. Tape backup operations can also reign over IT staff, requiring operator

[1] Source: ESG Research Report, *Data Protection Market Trends*, January 2008.

intervention for tape handling and troubleshooting. These issues are increasingly driving organizations to adopt disk in the backup process, but disk only addresses onsite operational recovery. Transporting backup copies off site to enable data recovery in the event of a site outage or regional disaster minimizes risk.

That's where the "cloud" comes in. The cloud is on-demand network access to a shared pool of "elastic" storage resources. Used as a backup target—as an alternative to portable media, such as tape—cloud services are typically charged back to the subscriber on a consumption basis. The lower cost of disk has changed the economics of applying it in the backup process and, similarly, more affordable bandwidth and capacity optimization technologies have changed the economics of leveraging cloud-based storage for disaster recovery purposes.

The cost efficiency achieved through automation and reduction of manual labor by applying both local disk-based backup and remote cloud-based storage for disaster recovery (DR) is a compelling benefit. However, the indisputable improvements in reliability, scalability, security, and SLAs may be more important considerations for deploying a hybrid on- and off-premises solution that leverages the cloud.

SunGard, a leader in availability services, has a long history of ensuring uninterrupted access to applications and data. The introduction of the company's Secure2Disk hybrid backup service is a natural extension to its business continuity portfolio.

Analysis

SunGard Secure2Disk consists of an onsite appliance that facilitates backup of production systems' data with an agentless approach. Backup data is stored locally for rapid recovery. A copy of backup data on the local appliance is deduplicated, compressed, encrypted, and transferred off site to the cloud—in this case, to a backup vault in one of SunGard's six SAS-70 Type II-certified data centers—for DR purposes. On-premises monitoring and management of backup and recovery operations, user access, and policies occur via Secure2Disk's Web-based interface. SunGard takes care of all of the behind-the-scenes management of the offsite backup vault.

Secure2Disk has several advantages over on-premises, licensed backup software protecting data on tape storage, including:

- **Simplified installation** – "Agentless" approaches minimize the overhead and invasiveness of a solution at the primary site. Instead of necessitating the installation of a client or application backup agent on every system to protect, a Secure2Disk appliance is installed on the LAN to facilitate protection of systems and data.
- **Performance** – Secure2Disk features backup to local disk-based storage with capacity-optimized copies of data transferred to a remote backup vault outside the backup window. Writing data to a sequential access medium, such as tape, involves more overhead and is slower. Eliminating tape media creation accelerates time to protection (locally) and time to DR. Recovering from Secure2Disk's local vault speeds recovery versus a tape-based strategy. SunGard offers services to package and transport the initial backup data set to the central backup vault, as well as recover a full system or site.
- **Reliability** – The capacity of backups for some organizations can exceed the capacity of the tape media, requiring more than one piece of media in the process. Unless some type of tape automation is in place, an operator has to get involved with tape handling (tape handling will be required regardless as tape media has to be loaded, removed, and transported off site for DR). Tape backup can be unreliable, as operator intervention can introduce errors, and tape media or tape device faults can cause backup/recovery failures. By removing tape from the backup equation, reliability is improved for both backup and recovery.
- **Scalability** – On-premises infrastructure will have some bounds, whether restricted by physical space or budgets. Secure2Disk's cloud-based storage delivers savings in acquisition, installation, provisioning, and management of onsite storage capacity and provides on-demand scale with a consumption cost model.
- **Operations/management** – Eliminating tape significantly reduces the need for operator intervention. Furthermore, on-premises backup requires ongoing monitoring and management to maintain optimal

service levels and efficiency. Secure2Disk service personnel take on the responsibility of maintaining backup infrastructure and ensuring that backup/recovery service levels are met.

- **Security** – One of the biggest risks with an on-premises tape-based backup strategy is the transport of media offsite for DR. There have been countless publicized data breaches resulting from unencrypted data being compromised outside of an organization's custody. Secure2Disk leverages encryption to secure data in flight and at rest, with the responsibility for key management resting with the Secure2Disk subscriber. Decryption of data requires the encryption key, restricting access to data to only designated personnel with security credentials.
- **Cost** – The capital and operational expenses associated with tape-based backup may strain IT budgets. Secure2Disk pricing is more inclusive. Its per-gigabyte pricing is based on the volume of protected data (deduplicated and compressed data) at the offsite backup vault. Secure2Disk's pricing includes the on-premises appliance, storage and software; Metro bandwidth; cloud-based vault storage; and 24/7 monitoring, management, and support.

It's this last point that SunGard is emphasizing with the release of Secure2Disk. The company believes its solution presents a total cost of ownership (TCO) approaching that of a tape-based equivalent, but with superiority in security, scalability, reliability, and service level delivery.

The Bottom Line

The allure of cloud computing is attracting vendors and end-users alike. ESG has seen an influx of top-tier vendors and new entrants introduce full or partial cloud-enabled data protection solutions. End-users—especially those small to mid-size organizations with a single data center, a high reliance on tape infrastructure, and regulatory or corporate mandates for data protection or retention—like the low-cost and low-risk entry to the model, as well as the high rewards.

SunGard has the brand, infrastructure, and expertise to win customers. However, the company is not just resting on its reputation. SunGard has based its solution on solid data protection technology that supports major physical and virtual server platforms such as Windows, HP-UX, AIX, Solaris, Linux (Red Hat and SUSE), iSeries, VMware and XenSource, and applications, including Oracle, Microsoft SQL, Exchange/Outlook, SharePoint, DB2, MySQL, Lotus Notes/Domino, and SAP.

The company is also doing some interesting things to optimize storage and pass on the savings to its subscribers. Secure2Disk leverages deduplication and compression to maximize the use of bandwidth in the transfer of data. These techniques also promote storage efficiency. Rather than base its consumption model on the volume of data to back up (at the primary site), SunGard's pricing is based on the volume of data protected (at the SunGard backup vault). This, combined with SunGard's 20% discount in its introductory period (calendar 2009), makes Secure2Disk an attractive alternative to on-premises, tape-centric strategies—especially in tough economic times.