



Your game plan for better backup and recovery

Updating your technology and processes can improve information availability and IT efficiency

By Tom Farre

Data backup and recovery processes are part of every IT department's routines, but there's always room for improvement. If you experience any of the following, you're probably due for a solution refresh.

Growing data stores: The incessant growth in data – 20 percent or more annually for the typical midsize business¹ – can outpace your storage capacity, bandwidth and staff resources. You could streamline your process by eliminating redundant data, or you might need a more robust and scalable solution.

Lengthy recovery times: A recent survey by the market research firm Enterprise Strategy Group found that more than half of midsize companies can tolerate only one hour or less of downtime for mission-critical data. If your recovery times are significantly longer,

you could put the business at risk. Fast recovery is especially critical at companies with many mobile employees. “Mobile workers need access to their data at the office, but their mobile clients are more likely to be damaged or lost,” says Hugo Llorens, SMB EqualLogic™ product line manager at Dell. “For them, speed of recovery becomes even more important.”

Increased virtual complexity: Server virtualization can simplify your physical server infrastructure, but it can make backup and recovery more complex. You need to decide the best methodology for backing up and recovering virtual machines, and whether to use specialized tools from the hypervisor vendors or a single, standardized tool for both virtual and physical resources. “If you're

consolidating 20 servers into virtual machines, you'll want to rethink how you're going to back them up,” says Greg Schulz, founder and senior advisor at the Server and StorageIO Group. “The last thing you want is to consolidate them and still have 20 copies of backup running on the physical machine.”

Tiered technology: Many recent technology advances can improve backup and recovery performance, including data deduplication, disk-based backup, compression, off-site replication, the cloud and more. Although prices have dropped, such advances must be balanced against the money IT has to spend. Backup and recovery must be done within a budget, and IT budgets have been consistently tight since the recent recession.

The good news is that deploying an effective solution can deliver solid returns on the investment. According to a report on backup and recovery by

the Alchemy Solutions Group, “The better an organization's backup and recovery solution, the more secure its data and the greater the efficiencies it derives from its people, processes and equipment.”

Research reveals that improved backup and recovery solutions reduced by 72 percent the time spent managing backups, redoing failed backups and the like, with positive effects on labor costs and staff productivity.

What's the bottom line? Improving your technology and processes for backup and recovery can pay dividends in higher availability of business-critical information, as well as in efficiency gains for IT staff. As Schulz says, “Now is the perfect time to do it.”

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Five steps to take today

Take stock of data usage: Before delving into the latest and greatest technology, you need to take stock of your company's data usage. “Usually backup and recovery discussions start with the solutions – compression, disk, dedupe, the cloud, all the buzzwords,” says Greg Schulz, founder and senior advisor at the Server and StorageIO Group. “It's best to first sit down with someone you really trust, such as a consultant, a partner or a vendor, and discuss your service-level requirements, why you're protecting data, what threats are you guarding against, and how your business requirements stack up against what IT can deliver. A consultative process will help you find and fix any problems, rather than just swapping technology around.”

Align technology to business requirements: The consultation process should bring out issues such as how long to retain data, your most common scenarios for restoring data, and the typical recovery points and recovery time. “Armed with such information, you can align the technology and tools to your requirements,” says Schulz. “All the technologies need to be in the toolbox and work together, but there's no single solution to every problem.”

Make scalability a priority: It's critical to plan for a likely increase in the volume of data. “I've seen many customers that didn't size their solution correctly,” Llorens says, “and they're back in the same situation

a year or less down the road. It's worth paying a little extra for scalability so you won't need a forklift upgrade anytime soon.”

Put tape in its proper place: Tape is traditional as a backup solution and the price is right, but it has its limitations. Recovery can be painfully slow, and granularity is lacking when you need to recover just a file or database table. Consider today's disk-based solutions for faster and more granular recovery, moving tape to tertiary or archival storage.

Consider off-site replication: Want safety, scalability and process automation for virtual server backups? These are pluses of off-site replication. Solutions can be either host-based or based on a stand-alone storage array, the latter with built-in intelligence to drive automation. The key to making off-site replication work is close collaboration with virtualization-savvy backup vendors such as Symantec® or CommVault®, which partner closely with top hypervisor providers like VMWare® and Microsoft®. Such solutions will allow for advanced, granular-level recovery within the bounds of your bandwidth connection.

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¹ From Enterprise Strategy Group, “Augmenting Data Backup and Recovery with System-Level Protection,” March 2011, p5.