



SUNGARD

BETTER BACKUP AND RECOVERY

White Paper Series

Five Simple Steps for Transforming Your Application Backup with Online Recovery Services

Businesses today operate in an environment where significant application downtime and data loss lead easily to lost productivity, lost revenue and lost customers. A better backup and recovery process is within online reach of your business.

Many organizations rely on their own IT departments to design and execute in-house backups and recoveries. Whether these organizations use tape- or disk-based backup, significant opportunities for increased efficiency are frequently overlooked because the IT department is using a one-size-fits-all approach for all of their applications and data. Yet for most organizations, a better method for executing backup and recovery is to categorize applications according to business value and to choose the ideal backup and recovery solutions accordingly. Typically, this requires outsourcing some or all of the organization's backup and recovery activities to a service provider with the experience and the infrastructure necessary to provide solutions with greater reliability and at a lower cost than an in-house solution. This approach is not just more efficient and less costly; it also ensures improved points-in-time of recovery within a committed service level in response to any type of failure event.

This white paper provides a step-by-step roadmap for incrementally improving current protection environments with transformative online services by outlining a strategy for tiering applications based on their tolerance for downtime. For each tier, there is a backup and recovery solution ideal for its recovery time objective (RTO). Free your environment from the artificial constraints of one-size-fits-all protection, and gain improved availability service levels custom-fit for every application tier.

The Real Cost of In-house Backup and Recovery

In-house backup and recovery is less efficient and more expensive than it first appears because the true costs are hidden. An understanding of these costs is the foundation for building a more efficient and reliable backup and recovery process. Once those costs are understood, tiering applications and handing over some or all backup and recovery activities to an appropriate service provider makes sense from both an operational and financial perspective.

Operationally, organizations can benefit from analyzing how much time IT personnel spend on backup and recovery. Over time, backup and recovery consumes more effort as the volume of data grows larger. It is simply not in an organization's best interest to focus IT personnel on a progressively expanding activity. An organization is better served by outsourcing routine backup and recovery and assigning in-house resources to activities that support revenue generation, expense reduction and strategic business initiatives.

Financially, an organization needs to look at how much it is actually investing in existing backup and recovery. The true cost of do-it-yourself backup and recovery is elusive because some components are difficult to quantify. Hardware (tapes or disks, libraries, cables and warranties) and software (operating systems, backup/recovery applications, training and annual maintenance) are easily quantifiable because purchases and labor can be tracked. But accounting for the cost of physical spaces, power sources, temperature controls and other overhead can be difficult. Nonetheless, the costs are real. Furthermore, an expansion of in-house IT infrastructure often requires a major capital expenditure (CapEx), where an outsourced solution that delivers the same or better functionality requires much lower operational expenditures (OpEx).

The importance of tiering applications

Not all applications and data are the same, and this has implications for both backup and recovery.

In terms of backup, many organizations default to backing up all of their applications and data collectively using the same method and periodicity. This is unnecessary in virtually all circumstances, and is a highly inefficient use of time and resources.

This approach can also make recovery problematic. If all data goes to a consolidated backup location, it will not be organized effectively enough for IT staff to find the correct databases, tables and records quickly and recover them for business users seamlessly.

The best kind of data for backup and recovery purposes is prioritized, organized data. Sales, marketing and manufacturing applications (commonly referred to as "Tier 1" because of its criticality to revenue generation) should be distinguished and handled differently from financial ("Tier 2") applications and data, which in turn should be managed distinctly from other ("Tier 3" or "Tier 4") applications and data.

Tiering applications and data effectively allows each tier to be backed up on a different schedule, which maximizes efficiency. And during recovery, the prioritization of the tiers helps ensure that the most critical applications are restored the most quickly.

Moving to tiered backup and recovery in five steps

STEP 1

Tier Applications and Data According to Business Value: Prioritizing and organizing a business's volume of applications and data requiring regular backup for recovery purposes must be a collaborative effort with business users. In most cases the old 80/20 rule applies: about 20 percent of an organization's data and infrastructure turn out to be essential to supporting its most critical applications, so there's value in taking time to perform the analysis. A consultative approach with internal stakeholders and with the assistance of external expertise is the best approach. Define true organizational needs by asking the right questions of relevant business departments. Which applications and data are most important to an organization in order to successfully conduct business? What data needs to be accessed most frequently, for transactional and/or reporting purposes? How often does "supportive" data such as that used by the human resources or accounting departments need to be retrieved?

STEP 2

Define Recovery Time Objectives (RTOs): Once an organization's applications are categorized according to business value, it is necessary to identify each application's sensitivity to downtime. Is the maximum permissible downtime less than an hour (Tier 1)? One to four hours (Tier 2)? Four hours to 24 hours (Tier 3)? Or more than a day (Tier 4)? It is also essential to analyze the business's tolerance for data loss with any application and determine the recovery point objective (RPO). Making these determinations will guide the IT department in the selection of best-fit protection methods for each tier, as the technologies used for backup determine the recovery time and recovery points that are possible.

STEP 3

Analyze Expenditure: Based on the tiering plan, the next move should be to accurately understand the total current costs of “owning” an ideal backup and recovery solution. This means estimating those “soft” costs usually so tough to calculate. It’s also important to consider the type of expense this would be, as CapEx is generally harder to allocate in most budgets and is less readily available. Once a total cost of ownership (TCO) is determined, the IT department can make some “yes-or-no” determinations. Is it more expensive to keep the solution in-house than it would be to outsource? Would the investment of budget and personnel be better spent on more revenue-generating projects? Many organizations answer “yes” to these questions and begin evaluating outsourced alternatives.

STEP 4

Choose the Solution and Transition: The appropriate solution for any tier of data is based on its sensitivity to downtime, which determines its recovery time objective. For instance, Tier 1 might contain applications critical enough to warrant outsourcing to multi-center managed services, with dedicated equipment, clustering, and load balancing. Tier 2, with its demand for recovery in less than four hours, might require server and storage replication services. Tier 3, which often houses the greatest absolute volume of applications and data, likely is ideally suited to an online backup and recovery solution. Tier 4 applications can be archived to tape.

Online backup and recovery services can be added incrementally over time to what an organization already has in place, with very little disruption. Organizations that want to add custom-fit new levels of availability, to Tier 1 applications, for example, can do this while continuing their existing backup and recovery methods. Organizations can also selectively retire protection infrastructure and systems from their environments, which frees maintenance budgets and administrative overhead depending on the equipment and systems present. Organizations can add online protection methods at their own pace, without disrupting the applications environment — and with little or no CapEx.

With required data tiering, budget and solution selected, the next step is to transition to the new solution. The selected service provider should be able to show an excellent, proven record in disaster recovery, with experience hosting hybrid solutions.

STEP 5

Compare Results: As with any significant technology initiative, a new backup and recovery solution needs some time to operate. IT should gather specific key metrics about the new system’s performance during this period. Once sufficient time has passed, based on these key metrics, IT should evaluate the new solution compared to the previous one and make any necessary adjustments to the new backup and recovery solution as necessary.

About Secure2Disk®

SunGard Availability Services offers Secure2Disk solutions, providing online backup and recovery capabilities which are designed to provide the appropriate custom-fit service level of availability — guaranteed by contract — for all applications and data, at every business tier from critical to off-line. The result for your business is enhanced availability and reduced cost of ownership, with little or no new CapEx required. For more information about Secure2Disk, please visit www.sungardas.com/secure2disk.

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