Cloud, Appliance, or Software? How to Decide Which Backup Solution Is Best for Your Small or Midsize Organization.

Who should read this paper

Small or midsize business owners or IT administartors.

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Content

Introduction

Emerging technologies such as cloud computing, analytics, social media, and mobility are transforming businesses, helping companies lower costs, increase production outputs, and improve business processes and operations. In order to gain access to new markets and opportunities and stay ahead of the competition in today's global business environment, companies must be responsive and reliable around the clock. This requires highly available networks and applications for business continuity.

As a result, businesses are asking more of their information systems—and creating more data—than ever before. If networks are not up and running, the impact to an organization's bottom line through lost revenue, productivity losses, and delays can be devastating, especially if systems and data can't be restored quickly.

Businesses must be able to recover from system loss or disaster in minutes, not hours or days, and from both physical and virtual environments. For a quick summary on backup best practices, read the white paper, _When Good Backups Go Bad: Data Recovery Failures and What to Do About Them_. If you're already on board with backup basics and are now searching for ways to simplify and automate your backup and recovery processes, you're in luck.

Powerful backup and flexible deployment options, including enhanced software, backup appliances, and backup solutions in the cloud, offer flexibility and choice in how you manage backup, allowing you to deploy a modern infrastructure that best suits your IT requirements, business needs, and environment. But how do you know which backup strategy is right for your business?

Back up to the cloud

Customers can leverage backup and recovery directly from the cloud with an online backup and recovery service, a form of Software as a Service (SaaS). Like other SaaS applications, online backup is an alternative to an on-premise software application. In this instance, both the backup application and information storage reside off-site. This approach allows customers to replace expensive upfront investments in backup hardware, software, and personnel with an affordable monthly or yearly subscription-based service.

As an organization grows and uses more applications, backup can become complex, expensive, and challenging. Online backup lets a company leave it to the experts and is optimized to work over very limited bandwidth connections between corporate locations and the vendor's data center. As such, it's ideal for customers with one to two servers per site and for roaming users. Finally, security is a top criteria for buyers. Best of breed solutions delivered by leading vendors securely transmit and store data in enterprise-class data centers.

Online backup service providers also:

- **Ensure regular and consistent backups**—With online backup solutions, backups can be completely automated and the vendor assumes most (but not all) of the responsibility for the success of the backups and restores. If something goes wrong with the network connection and the backup fails, the responsibility is shared. However, vendors offer 24 hours a day, seven days a week support and provide a Web-based portal to view completed backups and backup version histories, initiate restores, and run reports.
- **Help you manage costs**—With a subscription-based model, the cost of building and maintaining the infrastructure to support the backup application is spread across numerous customers, allowing the service provider to offer the service at a lower cost than would otherwise be possible.
- **Provide affordable, reliable, off-site protection**—Online backup eliminates the need to physically transport tapes or removable external drives. Backup data is copied electronically over the Internet to the vendor's data center. In addition, data is encrypted as

it's transmitted to the vendor ("encryption in flight") and encrypted again at the vendor's data center ("encryption at rest"), which ensures the security of your data.

- **Give remote and branch offices the same protection as headquarters**—Many remote and branch offices have limited or no backup in place. An online backup service for remote offices provides regular and automated backups for sites lacking local staff or significant bandwidth. It can also reduce infrastructure requirements at the remote site, such as local tape systems, media servers, and IT professionals.

Online backup is perfect for businesses with:

- **No local IT staff**—Smaller companies where IT is often overtaxed or where there is no on-site IT staff.
- **Smaller data sets**—Network bandwidth is a consideration when data sets are large.
- **Limited applications and databases on local servers**—A limited number of local applications or databases generally means you have less data or applications to recover.
- **No hardware for backup**—Businesses who have no plans to invest in hardware, and no desire to own or manage it.
- **Preference for SaaS**—More and more companies have adopted SaaS elsewhere in their business and prefer the benefits (agility, low initial price, pay-as-you-grow, etc.) over on-premise solutions.
- **Remote offices**—Online backup helps to relieve remote offices of backup duties so they can focus on business operations.

Backup appliance

A backup appliance is a purpose-built, all-in-one solution that integrates storage hardware and powerful backup software, providing a standardized backup infrastructure for one or multiple offices. Because an appliance can be installed easily, it allows a company to implement a new backup environment quickly and eliminate traditional server and software maintenance tasks. This would be appealing to companies that require new storage hardware and simply don't have the time or interest to integrate new hardware and software.

An appliance can reduce operational complexity and risk. With massive data growth frustrating storage and backup professionals, simplicity has become the dream of IT. Appliances allow organizations to quickly implement technology to reduce the impact of data growth in the fastest deployment model possible.

An appliance can reduce the time consuming, manual, and error-prone process of implementing a backup infrastructure, and it provides one point of contact for hardware and software support and maintenance. An appliance's standardized form factor, components, and software allow for consistent and reliable software and hardware updates (for example, operating system, security, network, and software application), which reduces the administration overhead required with custom-built solutions.

Further, an appliance can drive down total cost of ownership. Software is pre-configured on appliances, often with a simple licensing model for appliance capabilities. A single point of contact for both software and hardware technical support also allows customers to reduce their overall costs.

Perhaps the greatest value of an appliance, however, is the peace of mind it brings. Imagine receiving your backup solution in a turnkey format, complete with hardware, software, and support, all integrated into the appliance. An appliance allows you to quickly protect unprotected data and deploy backups with fully licensed, pre-configured software and hardware.

You should consider a backup appliance if you:

- **Are planning on buying new storage hardware**—Protect your growing data volumes and consider buying your hardware and software together.
- **Need quick recovery of files and applications**—On-site disk backups provide faster restores. Several appliances also provide granular object recovery of applications, including Microsoft® Exchange, Active Directory®, and SQL Server®, to quickly recover exactly what you need in seconds.
- **Are not wedded to a specific hardware**—An appliance is hardware-agnostic. If a company has no hardware vendor preference and simply wants an all-in-one backup solution, an appliance may be ideal.
- **Have limited IT staff of one or two people**—For a small or midsized company with no local IT staff, an appliance delivers a pre-integrated hardware and software stack that can be managed by a remote employee or trusted partner with no day-to-day IT support necessary.
- **Need instant backup for remote offices**—The appliance can be managed across remote offices and data can be moved to corporate headquarters for archiving.
- **Have a preference for integrated appliances**—Have you already deployed security appliances, Network Attached Storage (NAS) appliances, and other appliances broadly? Some companies simply prefer appliances because they like having the hardware on-site.
- **Have a preference for on-premise backup**—An appliance provides the capability to backup locally and then replicate a backup copy to another office or to a cloud infrastructure.

Backup software

Backup and recovery or data protection software is loaded and runs on a designated server to perform backup operations in the event data is lost. Today's data protection software solutions are quite sophisticated and may be all a business needs, depending on their current infrastructure. If you generally prefer to customize and build your own backup systems and have server management skills, software may be the right choice for you.

In addition, if you have already invested a great deal in storage or hardware, have large data sets, or have a preferred hardware vendor relationship, you may decide to purchase a new software program to complement your existing setup, with no current need for an appliance or a cloud service.

Best-of-breed backup software protects data and reduces storage and management costs through sophisticated deduplication (storing only one instance or copy of the data rather than all) and archiving technology. Improved visibility in virtualized environments allows you to see, protect, and recover virtual and physical machines, while intelligent archiving helps you manage the explosion of data by helping to identify what to store, what to delete, and when to move older data to secondary systems.

You should consider software if you:

- **Have a dedicated IT staff**—Shops with either on-site or partner IT can integrate the software into the current technical environment.
- **Are not planning on upgrading or buying new storage hardware**—Backup software will easily support your existing hardware investment.

- **Use software today**—If you are happy with your current software, there may be no need to change.
- **Have a preference for software**—Some shops simply have a "do-it-yourself" ethos and generally do not implement appliances or SaaS applications broadly.
- **Have a preference for on-premise backup**—Software provides the capability to backup locally and then replicate a backup copy to another office or to a cloud infrastructure.

Hybrid backup solution

You may decide that deploying a combination of software, appliance, and/or cloud offers the best of all worlds. In a hybrid approach, a number of scenarios are possible.

Businesses can perform local backups to a disk appliance, and then send a second copy of the data to a secure off-site storage location in the cloud at a vendor's data center. This ensures that the enterprise has instant restore from a local target, rather than having to wait for a quick ship of media or recovery online.

In another example, a customer might use backup software for the data center, but deploy an appliance for a remote office. This scenario is particularly ideal if the software and appliance are running the same software and can be centrally managed. Existing software customers may choose to upgrade to a backup appliance for local backup, and then add cloud backup for new offices or employee sites as they grow.

Three key questions to ask when considering a hybrid solution are:

1. Do I want to run my backup applications and storage in the cloud?
2. Do I want to run my backups locally (appliance and software) and implement disaster recovery with cloud storage?
3. Do I want to backup remote or branch offices to the cloud and run my data center or central office with traditional backup software or an integrated appliance?

A hybrid solution can work well if you:

- **Require quick/on-premise recoveries**—In a hybrid arrangement, a company can back up data to an on-site appliance that runs backup jobs with Local Area Network (LAN) clients and stores these backups locally, making them available for faster restores. The backup site connects to a supported cloud infrastructure on the back end and provides off-site storage of backups for disaster recovery and long-term retention.
- **Have smaller remote offices with little or no IT staff**—Companies may be running software at the main site and may want to consider using cloud backup initially, with the option to expand the remote office infrastructure with appliances in the future, with all of the components managed through one console.
- **Want to first back up data to an on-site appliance**—An appliance that runs backup jobs with LAN clients and then stores data in the cloud allows data to be protected both locally, for easy access and quick recovery, and off-site, for disaster recovery purposes.

Conclusion

Today, all businesses must ensure they can recover quickly and reliably from a system failure, data corruption, virus outbreaks, and more. Information can be lost at any time, making it imperative to ensure your data is always protected and recoverable. As backup and recovery challenges evolve, leading vendors are responding with new approaches to data protection tailored to companies of any size. Robust backup and recovery for physical and virtual environments can be consumed as software, a cloud service, an appliance, or in a hybrid solution including two or more of these. Now you can leverage fast, simple, and modern backup and recovery in the way that best fits your needs.

Symantec is a one-stop-shop delivering simple, cost-effective data protection and recovery solutions in all of these deployment options. Whether you're a small or midsize businesses using Windows® platforms or a large, multi-platform enterprise, Symantec has simple, cost-effective data protection solutions designed for your business. Learn more at www.symantec.com.

About Symantec

Symantec is a global leader in providing security, storage, and systems management solutions to help consumers and organizations secure and manage their information-driven world. Our software and services protect against more risks at more points, more completely and efficiently, enabling confidence wherever information is used or stored. Headquartered in Mountain View, Calif., Symantec has operations in 40 countries. More information is available at www.symantec.com.

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