IBM

Tivoli® software

Help optimize your storage management infrastructure for improved business agility.

ON DEMAND BUSINESS™

An on demand business faces growing pressure to reduce costs, while business requirements and competitive demands continue to intensify. To thrive in a challenging marketplace, businesses need to be flexible and poised to respond to any business opportunity or threat. An enterprise must also be able to efficiently manage information throughout its life cycle. Handle diverse applications from multiple sources. Meet critical data-retention and data-protection requirements from both internal and external sources. And because today's enterprises demand business continuity, these requirements must be met while ensuring application availability.

When weighing your storage management options, you need to address the following challenges:

Manage information efficiently over its life cycle
Your infrastructure needs to provide for differing storage environments and house diverse types of information, while managing data from creation to disposal. To help maximize efficiency, information must be stored hierarchically — at the appropriate cost structure, according to its relevance. Furthermore, your infrastructure must be easily adaptable to help you meet fluctuating internal and external demands. Your organization must also find a way to meet increasingly stringent business and various regulatory agency data-retention requirements.

Help maximize business continuity, security and data durability
Staying competitive means an on demand business must be continuously open for business. Protecting your data from disaster, outages and human error is critical to keeping your business up and running. Your organization might also be subject to new governance requirements to provide written, auditable disaster recovery procedures. A complete storage solution can help you minimize downtime; deliver secure access, backup and recovery capabilities; and sense, respond and adapt to business and regulatory policies.

Simplify the IT infrastructure
As businesses respond to today's information-based culture, storage needs rise proportionally. Increasing numbers of users demand quick and easy access to data. And rapid adoption of various types of technology from different vendors and multiple sources can create a complex infrastructure that makes storage management time consuming, error prone and costly. Businesses need to simplify, consolidate and integrate their storage management infrastructure. An integrated solution can help IT staff rapidly identify, isolate and resolve problems, and thereby optimize both staff productivity and administration costs.

In the following pages, you'll learn more about specific criteria in each of these three areas that you can use to evaluate storage management solutions. Make sure that the

solution you choose provides you with a complete answer to the storage-related business challenges you face today — and those you'll have to deal with in the future.

Help optimize management of information throughout its life cycle

Data is becoming an increasingly valuable asset for an on demand business. As its value has grown, so have the quantity and complexity of information, making it more costly to store and manage. Implementing a comprehensive information life-cycle management strategy allows you to securely manage information from beginning to end, storing it according to its value to the business and allowing you to optimize your storage resources.

Optimizing your storage resources also requires consolidating them on a flexible, open platform — one that can grow as your business grows. You need to reap maximum benefit from your current IT assets, with an integrated, customized storage management solution that provides support for disparate devices, platforms and operating systems.

Look for a solution that enables you to:	IBM	Other vendor
• Centralize storage management, allowing you to match the value of protected data and applications to the most cost-effective media — whether tape or disk storage.	✓	
• Leverage scalable recovery-management products to meet service level agreements using the appropriate cost structure.	✓	
• Archive the right data at the right time by using policy-driven, intelligent data backup.	✓	
• Implement automated, policy-based data-movement and intelligent storage to help minimize human error and free your administrators to work on higher-value tasks and projects.	✓	
• Centralize backup and recovery by leveraging common data replication and backup between disparate systems.	✓	
• Automate and orchestrate server and storage provisioning — as well as other administration tasks — to help simplify maintenance and manage your storage environment with existing staff.	✓	
• Make server and storage provisioning highly efficient by implementing logical virtualization of volumes (disk systems) and file systems, helping to optimize storage system utilization and minimize the need for additional hardware.	✓	

Help maximize business continuity, security and data reliability

Businesses depend on the availability of their applications and core business data. If applications are down, response to changing business conditions is delayed, resulting in lower customer satisfaction and potential loss of revenue. Applications and mission-critical data must be continuously available and backup time minimized. If an outage should occur, the enterprise needs a comprehensive data disaster plan — one that speeds application recovery. Businesses operate continuously, so planning for scheduled downtime is crucial.

To help preserve your business-critical data throughout its life cycle, you need a set of storage management products with a data-protection capability. A solution that enables automation of archival and backup tasks — for auditing and other compliance efforts — and helps minimize human error. One that aligns infrastructure costs with information value and access requirements.

Make sure that the storage management solution you select helps you:	IBM	Other vendor
• Deploy a tiered storage architecture to better match storage system performance and capacity to different data sets, and to help maximize system resiliency.	✓	
• Logically virtualize both volumes (disk systems) and file systems to help optimize storage system utilization and minimize the cost of maintenance and provisioning.	✓	
• Consistently execute policies for placing, moving and deleting data over its life cycle — to meet business data-retention needs and to align infrastructure costs with information value and access requirements.	✓	
• Implement common data-replication and backup procedures among disparate systems — to facilitate system resilience and gain consistency in the storage architecture.	✓	
• Automate data replication, retention and migration tasks to help optimize backup and restore capabilities, as well as minimize operating costs.	✓	
• Add intelligence to data-protection and data-retention practices through policy-based placement, movement and deletion.	✓	
• Integrate disk-based backup technology to improve performance and utilization.	✓	
• Use advanced management capabilities that avoid use of expensive virtual tape libraries.	✓	
• Help minimize media costs with advanced media management such as reclamation.	✓	
• Provide proven reliability, especially for restore capabilities (never lose your data).	✓	
• Help optimize management time and enforcement of data retention policies.	✓	
• Help maximize service levels for data protection by identifying files not backed up or archived.	✓	

A superior storage management solution enables you to:	IBM	Other vendor
• Create a single point of control, administration and security for the management of heterogeneous storage networks, disk systems, replication services and file recovery.	✓	
• Exert policy-based control over how IT resources are optimized and deployed to meet business needs and service level agreements.	✓	
• Leverage automated reporting of information and metrics — including self-diagnosing capabilities — to help administrators make accurate, timely decisions.	✓	
• Automate common storage tasks.	✓	
• Implement an intelligent data-movement strategy, where only new or changed files are backed up, to reduce unnecessary data transfers that consume bandwidth and to improve productivity by eliminating the need to perform complete backups every time.	✓	
• Index file archive copies to aid administrators in locating historical data.	✓	
• Back up application data automatically, based on priority and business value.	✓	
• Respond to policy violations in an automated fashion.	✓	

Simplify your storage management infrastructure to help drive productivity

If you are overwhelmed by the increasingly diverse array of applications — with varying availability options, performance capability and capacity limitations — while managing the cost of your storage management infrastructure and cost requirements, you're not alone. A comprehensive storage solution can help you use and integrate existing storage assets, simplify management tasks and help you better manage growth. Policy-based administration allows your IT staff to centrally manage the storage and replication of all enterprise data, based on specific business requirements and your goals for availability and recovery time.

Innovate your infrastructure with intelligent storage management

IBM TotalStorage® Open Software — including the IBM TotalStorage Productivity Center family of products and TotalStorage virtualization software — combined with IBM Tivoli® storage management software can provide your enterprise with a comprehensive solution that can grow as your business grows, while helping you maximize the business value of your IT investment. IBM storage management solutions meet all of the criteria described in this buyer's guide.

The Tivoli Storage Manager family of products includes:

- *IBM Tivoli Storage Manager for Application Servers.*
- *IBM Tivoli Storage Manager for Databases.*
- *IBM Tivoli Storage Manager for Data Retention.*
- *IBM Tivoli Storage Manager for Enterprise Resource Planning.*
- *IBM Tivoli Storage Manager for Hardware.*
- *IBM Tivoli Storage Manager for Mail.*
- *IBM Tivoli Storage Manager for Space Management.*
- *IBM Tivoli Storage Manager for Storage Area Networks.*
- *IBM Tivoli Storage Manager for System Backup and Recovery.*
- *IBM Tivoli Storage Manager Extended Edition.*

**Help simplify your on demand business with
IBM Tivoli Storage Manager offerings**

The IBM Tivoli Storage Manager family of offerings is
designed for recovery management, enabling you to
better protect your enterprise from failures while helping
to maintain business continuity and application availability.
Tivoli Storage Manager provides a centralized, integrated
point of management, helping enterprises store data based
on its criticality to the business, service level requirements
and associated cost structures of the various storage
media — all of which help optimize storage resource
utilization and minimize complexity. Data archives are
securely managed for a defined lifetime through the policy-
based automation engine. And Tivoli Storage Manager can help
protect thousands of computers running more than a dozen
different operating systems. With its intelligent data move-
and-store techniques and policy-based automation,
it provides a cost-efficient and highly scalable solution.

**Leverage IBM TotalStorage Open Software to help optimize
the flexibility of your storage infrastructure**

IBM TotalStorage Open Software can help you accommodate
rapidly changing storage needs. It allows you to pool, share
and access enterprise-wide storage assets. This software
works with storage infrastructure management software to
centralize volume, file and device management, helping you
optimize utilization, performance and availability.

IBM TotalStorage Productivity Center and IBM TotalStorage Productivity Center with Advanced Provisioning

IBM TotalStorage Productivity Center is an integrated storage infrastructure management suite that helps you simplify, automate and optimize the management of storage devices, storage networks and capacity utilization of storage systems, file systems and databases. Automate file-system and database capacity provisioning and perform device configuration and management of multiple devices from a single user interface. Tune and proactively manage the performance of storage devices on the SAN. And manage, monitor and control your SAN fabric. Manage your replication services centrally.

IBM TotalStorage Productivity Center consists of:

- *IBM TotalStorage Productivity Center for Data.*
- *IBM TotalStorage Productivity Center for Fabric.*
- *IBM TotalStorage Productivity Center for Disk.*
- *IBM TotalStorage Productivity Center for Replication.*

IBM TotalStorage Productivity Center with Advanced Provisioning includes additional workflow building blocks designed to help you easily build and customize your own solution workflows with minimal effort.

IBM TotalStorage Productivity Center with Advanced Provisioning is comprised of:

- *IBM TotalStorage Productivity Center, which provides provisioning capabilities.*
- *IBM Tivoli Provisioning Manager, which facilitates the automation of provisioning tasks by using storage workflows.*

IBM TotalStorage virtualization software

IBM TotalStorage virtualization software provides improved management for SAN-based storage and data and is comprised of the following two products:

- *IBM TotalStorage SAN Volume Controller.*
- *IBM TotalStorage SAN File System.*

Leverage a superior storage management solution from IBM

With IBM TotalStorage Open Software, you can choose from one of the broadest portfolios of storage infrastructure management and virtualization capabilities in the industry. A market leader in the storage industry with innovative technology, open standards, excellent performance and a broad portfolio of storage-proven software, hardware and solutions offerings — IBM can help position your enterprise to sense, respond and adapt in an on demand way to changes, helping innovate the way you do business.

To learn more

To learn about specific features and capabilities of IBM TotalStorage Open Software, download the IBM TotalStorage product guide at **ibm.com/**storage/pguide

For more information about IBM Tivoli storage management products, contact your IBM sales representative or IBM Business Partner, or visit **ibm.com/**tivoli/storage

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