

IBM storage infrastructure management for growing data needs



Organizations in a wide range of industries are struggling to manage a rapidly rising volume of data. This data explosion has been caused in part by an increasing reliance on ready access to information for everyday business processes and operations.

The dramatic rise in the volume of data is set to continue. Yet many organizations lack an enterprise-wide storage strategy to address the trend. In attempting to respond to growth, many organizations have simply added storage devices ad hoc. The result is often a fragmented storage environment that is complex and costly to manage. Industry analysts suggest managing storage has one of the highest labor costs of any IT management domain, significantly impacting enterprises' operating costs.

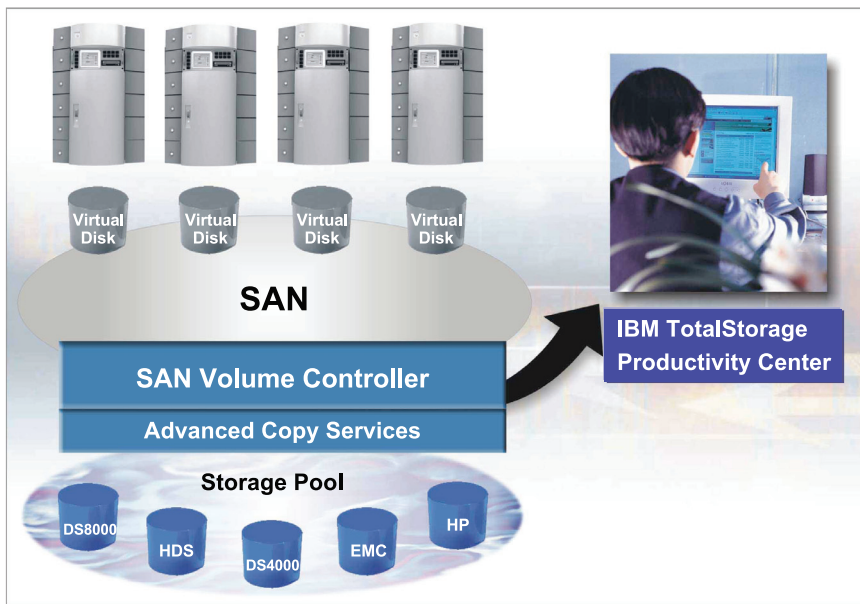
Enterprises need ways to control the current rate of data growth and plan for the future. By reorganizing storage environments, you can improve utilization

Highlights

- *Improve storage utilization, improve flexibility and application availability, and increase ROI by virtualizing storage on existing IT infrastructures*
- *Address data growth and plan for the future by analyzing usage trends*
- *Build a tiered storage environment that helps match the value of data with the most appropriate type of storage*
- *Provide end-to-end disk management and centralize service level management of your storage infrastructure*

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IBM System Storage SAN Volume Controller helps increase storage utilization

The IBM System Storage SAN Volume Controller (SVC) is designed to help you create a virtualized SAN environment that improves storage utilization. SVC comprises IBM System Storage SAN Volume Controller software running on clustered pairs of servers that help provide a reliable hardware foundation designed to avoid single points of hardware failure.

By pooling storage capacity from IBM and non-IBM devices into a single, virtualized reservoir that is shared by applications, SVC can help give applications the flexibility to use capacity beyond their islands of pre-allocated space on dedicated volumes.

Storage virtualization matches server virtualization

The IBM System Storage SAN Volume Controller can help simplify the integration of virtualized storage with virtualized server environments. In much the same way that server virtualization increases flexibility and speeds responsiveness, SVC helps achieve the same ends for storage. By freeing applications from physical hardware limits, you can eliminate wasted space, use less storage capacity and increase utilization of existing storage.

and data availability. Most importantly, a simplified, centralized way to manage storage can help reduce the administrative burden of complexity and decrease costs.

IBM simplifies storage management

The combination of IBM System Storage™ SAN Volume Controller and IBM TotalStorage® Productivity Center enables you to create, organize and manage a storage environment that can accommodate the explosive growth of data while simplifying management and keeping costs under control. Building a tiered storage environment is a crucial part of this process.

As part of this portfolio of products, the IBM System Storage SAN Volume Controller can create a virtualized, multi-tiered environment that can help improve disk utilization and match the value of data with the optimum type of storage. And when used in conjunction with the IBM TotalStorage Productivity Center suite, you can assess and classify data usage, plan for growth and generate extensive reporting to analyze storage trends for capacity, performance and storage infrastructure service levels.

Virtualizing storage also can help to insulate applications from physical changes to the storage infrastructure. Since applications are not tied to dedicated volumes, SVC can help administrators make changes such as scaling capacity or moving virtual volumes from one storage systems to another without interrupting applications.

IBM System Storage SAN Volume Controller helps centralize management

The IBM System Storage SAN Volume Controller enables you to manage both IBM and non-IBM storage through a centralized interface using open industry-standard APIs. This interface allows you to map pooled disk storage capacity to virtual volumes, control which servers can access which virtual volumes and perform other system administrative tasks. In addition, you can monitor overall storage capacity and manage functions such as advanced copy services across all supported disk systems. All these functions can be performed in a consistent manner on virtual volumes regardless of the type of disk systems involved.

The IBM System Storage SAN Volume Controller helps you to build and scale your infrastructure with the most cost-effective collection of storage for your

needs by grouping storage in “pools” that can correspond to storage tiers, with specific service levels to support the value of data in each tier. And, when the time comes to shift data from one tier of storage to another, SVC helps facilitate a quick migration with minimal disruption.

IBM TotalStorage Productivity Center helps monitor storage for today and tomorrow

The IBM TotalStorage Productivity Center is designed to provide the tools to help administrators analyze data usage so they can better plan for and control data growth, manage storage system and SAN performance and report on storage infrastructure service levels and configurations. The modular, integrated and easy-to-install components of the IBM TotalStorage Productivity Center suite are designed to deliver common services across host, fabric and storage systems.

Available modules include:

- *IBM TotalStorage Productivity Center Standard Edition*
- *IBM TotalStorage Productivity Center for Fabric*
- *IBM TotalStorage Productivity Center for Data*

- *IBM TotalStorage Productivity Center for Disk*
- *IBM TotalStorage Productivity Center for Replication*
- *IBM TotalStorage Productivity Center Limited Edition*

The IBM TotalStorage Productivity Center software suite monitors System Storage SAN Volume Controller environments by providing an end-to-end topology view of a SVC managed storage environment. Productivity Center delivers a clear picture of the relationship between back-end volumes (four physical LUNs within an IBM FASTT200 array), managed disks (Disks), managed disk groups (Pools) and vdisks (Volumes) presented to servers (LUNs). Productivity Center also graphically presents the health of volumes for quick and easy problem isolation. It also delivers performance, capacity and configuration management of SVC environments.

The IBM TotalStorage Productivity Center for Data helps you plan for future growth by enabling you to monitor and analyze storage trends. With more than 300 reports available (plus the option for customized reporting), you can analyze capacity utilization by user, department, file system and database, and then predict storage growth for the future.

Customizable policies can help improve storage efficiency

The IBM TotalStorage Productivity Center software also includes several features designed to help improve system availability and performance. IBM TotalStorage Productivity Center for Fabric software, for example, is equipped with SAN error predictor, an autonomic computing capability that can help predict SAN problems before they occur. IBM TotalStorage Productivity Center for Disk and IBM TotalStorage Productivity Center for Fabric can drive provisioning tasks, including SAN fabric switch reconfiguration and storage provisioning across multiple vendor solutions. These can also be combined with IBM Tivoli® Provisioning Manager to implement workflow based automation of storage provisioning and simplify the provisioning tasks.

The IBM Storage Infrastructure Management Advantage: The Bigger Picture

Deployed together, IBM System Storage SAN Volume Controller and IBM TotalStorage Productivity Center deliver the core foundation management tools that help customers do advanced management of their storage infrastructure. Working with other products such as the IBM Tivoli Storage Process Manager and Tivoli Storage Manager SAN Volume Controller and Productivity Center can start to streamline key storage management

processes to help improve the productivity of storage teams. And, customers can leverage the IBM Tivoli Change and Configuration Management Database for automated discovery, mapping and visualization capabilities to facilitate a comprehensive view of the attributes and interrelationships between the storage environment and business applications and processes.

IBM provides extensive service plan

By combining IBM System Storage SAN Volume Controller and IBM TotalStorage Productivity Center in the Information On Demand Infrastructure Management solution, IBM can help you build and manage storage environments that can accommodate fast-rising volumes of data, improve efficiency and help lower storage costs.

IBM understands that installing and implementing a new storage strategy can be overwhelming, so we have also designed services to help enterprises plan, configure and deploy storage management solutions. By putting your data to work for you, IBM information lifecycle management solutions can help improve access to information, reduce costs and facilitate adherence to government regulations.

For more information

Contact your IBM representative or IBM Business Partner or visit:

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