Services Oriented Storage Solutions from Hitachi Data Systems

With the role information serves in achieving commercial competitiveness, business organizations today require an infrastructure that stores, secures, protects and manages data.

Hitachi Data Systems is committed to helping organizations of all types and all sizes in meeting these challenges, lowering IT costs, eliminating complexity, reducing risks and increasing operational efficiency. With Services Oriented Storage, Hitachi Data Systems enables organizations to align their storage infrastructures with their business requirements.

Over the past few years, Hitachi Data Systems has changed the rules of the game with a revolutionary approach that separates the traditional disk-based storage, considered a commodity, from the intelligent management required to provide storage, data and content services, thereby enabling the administration of the entire IT environment from a single control unit.

Hitachi Storage Solutions

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Services Oriented Storage Solutions

Services Oriented Storage Solutions is a strategy that aligns storage resources with business needs. It's an approach that creates a flexible, adaptive storage platform. In the services oriented approach, technologies like storage virtualization and common management tools enable the deployment of Storage Services, such as replication, data migration, search and archiving, across a multivendor storage environment. IT can deliver these services whenever and wherever requested, meeting user and application requirements for performance, scalability, availability, data security and affordability.

Services Oriented Storage provides data management functions as utility-like services that can be delivered to users (departments, applications) to meet their needs, irrespective of what the underlying physical storage components are. Using this approach, IT no longer needs to address each user requirement as a new problem to solve separately.

Services Oriented Storage provides a data management platform that allows storage elements to be readily reconfigured and optimized to accommodate changing business requirements. In Services Oriented Storage, commonly required functions such as data replication, movement and de-duplication are available to multiple applications, server environments and storage environments. It's an adaptive approach enabling repeatable deployment of storage services whenever and wherever they're required.

- **Storage Consolidation Solutions** reduce management complexity, lower operational costs and maximize data availability, performance and storage utilization.

- **Business Continuity and Data Protection Solutions** address those unforeseen events that may threaten information security; disaster recovery, backup and virtual tape library solutions allow users to resume their operations in the shortest time and with as little risk as possible for the business.

- **Virtualization and Tiered Storage Solutions** simplify infrastructure and reduce costs by designing various storage levels according to the requirements of business critical applications, improving the administration of heterogeneous environments and maximizing storage resource utilization.

- **Regulatory Compliance Solutions** help mitigate risks in relation to government regulations and comply with the rules concerning data preservation and availability.

- **Archiving Solutions** provide intelligent, scalable and high-performance archiving, based on industry standards. With an open, easy-to-manage architecture, the solutions enable content protection and preservation from multiple applications in a common multipurpose repository within the organization, featuring easy-to-use search engines based on metadata.

- **Network Attached Storage (NAS) Solutions** include Hitachi High-performance NAS and Hitachi NAS, both powered by BlueArc®, and the Hitachi Essential NAS Platform®. Hitachi High-performance NAS is a robust platform for the enterprise, while Hitachi NAS serves midrange organizations; both provide best-in-class support for consolidation, file virtualization, vigorous data protection and high-performance applications. The Hitachi Essential NAS Platform is optimized for file server consolidation and backup to achieve central management and increased data availability at an affordable price.

- **Storage Management Solutions** help to align the IT infrastructure with the service levels required by critical applications and reduce costs related to ever increasing data volume, optimizing control and efficiency.

- **Ecological Solutions** reduce power consumption in the data center, optimize cooling and enable resource reutilization and compliance with environmental regulations.

- **Hitachi Data Systems Global Solution Services** consultants help users identify potential risks, plan effective storage architectures, optimize storage performance and manage IT environments.

Products

Storage Systems

In today's economic environment, the success of an organization depends on continuous access to its information. Hitachi Data Systems offers storage system, storage area network (SAN) and NAS solutions to optimize IT infrastructure consolidation and provide the availability and capability required for the business. A common management suite for all solutions makes management easier.

Hitachi Universal Storage Platform® V

- Single framework for block, object and file services
- Enables previously unattainable levels of consolidation
- Provides large scale, enterprise-class virtualization with thin provisioning
- Virtualizes internal and external heterogeneous storage into one pool
- Delivers efficient power, cooling and footprint for eco-friendly data centers
- Offers advanced in house disaster recovery and electronic vaulting
- Highest availability, reliability and performance

Hitachi Universal Storage Platform VM

- Single framework for block, object and file services
- Blends enterprise-class functionality with a smaller footprint
- Provides large scale, enterprise-class virtualization with thin provisioning
- Virtualizes internal and external heterogeneous storage into one pool
- Delivers efficient power, cooling and footprint for eco-friendly data centers
- Offers advanced in house disaster recovery and electronic vaulting
- Highest availability, reliability and performance

Hitachi Adaptable Modular Storage 2000 Family

- Ideal for medium and large businesses, Hitachi Adaptable Modular Storage 2100 scales to 120 disk drives. Hitachi Adaptable Modular Storage 2300 scales to 240 disk drives. Hitachi Adaptable Modular Storage 2500 scales to 480 disk drives and is ideal for large and enterprise businesses. Hitachi Adaptable Modular Storage 2500DC is NEBS-3 certified to meet the requirements of a Telco central office or a DC powered data center.
- Delivers outstanding performance and ease of administration with the Hitachi Dynamic Load Balancing Controller, a symmetric active-active controller design that provides automated hardware-based front-to-back I/O load balancing
- Achieves greater efficiency and reliability with 99.999 percent data availability
- Lowers the total cost of ownership with a choice of SAS or SATA II disk drives
- Interface delivers up to 9600MB/sec of total back end system bandwidth
- Provides seamless operations in VMware with VMotion environments and ensures fast response times in Microsoft® Exchange environments
- Reduces carbon footprints and cooling costs with Power Savings feature

Hitachi Simple Modular Storage

- Provides small and medium businesses (SMBs) with enterprise-class storage features that are cost effective and simple to install, manage, back up and restore
- Available with single or dual controllers; includes 6, 8 or 12 hard disk drives [high-performance SAS (serial-attached SCSI) or cost effective SATA II] in a RAID-6 (dual parity) configuration for industry leading data protection
- Ships with all software necessary to install, manage and back up data, including new Hitachi Storage Navigator Modular 2 software, developed for SMBs with an easy-to-use graphical user interface (GUI) that includes installation, maintenance and configuration wizards
- Is fully integrated with Microsoft Windows® platforms, including Microsoft SQL Server® and Microsoft Exchange Server, as well as all major Linux, most UNIX and other server operating systems

File-based Storage Systems and File and Content Services

Hitachi Data Systems lets organizations gain control of their unstructured data with ease of data access, search, retention, consolidation and archiving on an integrated file-based platform. Organizations can protect unstructured data to mitigate and quantify risk and increase the efficiency and ease of compliance across the boundaries of NAS and content archiving platforms.

Hitachi High-performance NAS and Hitachi NAS, powered by BlueArc®

- Outstanding performance and scalability as either a NAS filer, or gateway to SAN storage pools
- Exceptional flexibility for data protection and disaster recovery of commercial enterprise applications like Microsoft Exchange Server, SQL Server, SharePoint® and Oracle within VMware, Citrix or Microsoft Hyper-V™ server environments
- Intelligent virtualization, which supports file tiering, policy-driven migration and thin provisioning to simplify storage management

Hitachi Essential NAS Platform®

- Provides best-in-class availability and scalability at a low price
- Enables simplified NAS and SAN management with the seamless integration of Hitachi Storage Command Suite software

Hitachi Content Archive Platform

- Provides the foundation for building an "active archive" for the long term preservation of fixed or unstructured content, such as e-mail, reports, images, Web 2.0 content, audio and more

- Only archive solution that delivers an optimized storage platform with industry leading scale, compression, duplicate elimination, enhanced security and data authentication services
- Enables rapid discovery of data through both full text and metadata search and access of unstructured, archived content

The Hitachi Data Discovery Suite

- Delivers federated full content search across Hitachi NAS family and Hitachi Content Archive Platform products as well as NetApp devices
- Offers secure, seamless data migration across tiers of storage to take advantage of tiered storage and address compliance and litigation requirements
- Reduces the cost of e-discovery and litigation with reliable data access, federated search, information repurposing and integration with 3rd party software solutions
- Integration with Microsoft Active Directory and LDAP helps ensure data privacy and security

- Hitachi Data Discovery for Microsoft® SharePoint® gives users a simple way to offload content to the Hitachi Content Archive Platform to reduce the impact of content growth

Storage Software

The Hitachi Data Systems software portfolio:

- Guarantees high levels of data availability, optimizing application performance
- Maximizes IT productivity and lowers costs by automating management and maintenance tasks

Storage Resources Administration

- Optimizes IT costs and the resources required to manage a storage environment
- Simplifies heterogeneous storage management by using a consolidated platform
- Guarantees critical application availability and performance

Replication

- Ensures business continuity for operational and disaster recovery
- Optimizes resilience, maximizing service levels by reducing planned or unplanned downtime of customer facing applications
- Enables remote and in-system replication

Backup and Recovery

- Enables high performance in information protection, management and data availability in complex and heterogeneous storage environments
- Helps to overcome challenges related to shrinking backup windows, rising tape costs, recovery of critical data and regulatory compliance requirements

Content Archive

- Makes it possible to manage great amounts of unstructured information that needs to be digitally stored
- Facilitates the protection, long term preservation and access to data whenever it is required, enabling regulatory compliance