

# Brocade StorageX File Virtualization and Management Solution



**BROCADE**

## Highlights

- Increases data management agility and efficiency through migration and consolidation as well as transparent, nondisruptive, high-speed data movement
- Centralizes and automates key data management tasks for greater productivity, including failover and remote site data management
- Leverages policies to automate tiered data migration from primary storage to secondary devices based on specified criteria
- Enhances business continuity with 24/7 data access, utilizing replicas across multiple heterogeneous, distributed locations
- Improves user productivity with location-independent views of distributed data
- Meets security, regulatory and corporate governance compliance with reporting and seamless preservation of file permissions during migration
- Helps enable efficient, cost-effective File Area Network (FAN) environments; the Brocade StorageX powerful policy-based file management solution leverages a Global Name-space to provide data migration, consolidation and replication capabilities.

## Simplification through File Transparency

At the foundation of Brocade StorageX is the Global Namespace, which unifies and virtualizes heterogeneous file data stored throughout an enterprise by pooling multiple file systems into a single, logical file system.

This design enables Brocade StorageX to present logical, location-independent views of file data, making the physical location of data transparent.

In general, Brocade StorageX does for file storage what Domain Name Service (DNS) does for networking: it enables clients to intuitively access distributed files without knowing their location (just as they access Web sites without knowing the IP addresses). This transparency of the storage architecture can span the enterprise, therefore:

- Data management and movement are both transparent and nondisruptive to clients.
- Data changes are automatically updated and require no client reconfiguration.
- Administrators can expand, move, rebalance and reconfigure storage without affecting user view/access.
- Data management and movement require far less administrative effort and time.
- Administrators can manage data on heterogeneous, geographically distributed storage devices through a single console.
- Users access a single, logical view of files through a single drive letter.

## Data Migration and Consolidation

Brocade StorageX enables administrators to seamlessly migrate and consolidate data from multiple heterogeneous file servers. Its logical view of data and migration policies shield users from physical changes during migrations while maximizing data access.

The policy engine significantly reduces administrative tasks by providing a high degree of automation. In addition, Brocade StorageX:

- Enables automatic share creation
- Copies security attributes and audit information
- Integrates with NTFS Change Journal and with Microsoft Volume Shadow Copy Service (VSS) snapshots (to enable open and locked file copying)

## Powerful Replication Technology

Brocade StorageX replication policies enable file replications of any size and any distance in distributed, heterogeneous environments for CIFS compatible storage. These policies enable monitoring of replication jobs across the enterprise—utilizing a graphical drag-and-drop configuration topology for easy virtualization. Key replication capabilities include:

- One-to-many data distribution or many-to-one data gathering
- File- or byte-level replication and a large replication set size
- Ability to replicate cluster shares or invoke custom scripts
- Easy comparisons of source and destination contents
- Bandwidth throttling

## Seamless Infrastructure Integration

As a nonproprietary software solution, Brocade StorageX fits seamlessly into existing IT environments. It resides on existing file systems, uses standard CIFS protocols, requires no client software or agents and is simple to install and use. Because Brocade StorageX is an out-of-band solution and does not reside in the data path, it does not cause latency, performance or accessibility issues.

## Industry-leading Capabilities

- **Phased migration.** Enables staging of the data migration operation; can run automatic repeated data copy operations before the final copy or cutover
- **Link cloning.** Quickly adds multiple targets to a link at one time
- **Agent management improvements.** Enhances the management of replication and monitoring agents, including deployment credentials, upgrades and reporting
- **Replication agent grouping.** Enables administrators to add multiple replication agents to an agent group and assign the group to a policy for distributing the data migration workload; this approach improves flexibility and throughput in many-to-one replication scenarios
- **Integration with Windows Server 2003 R2.** Supports new DFS attributes in Windows Server 2003 R2 with namespace backup/restore policies

## Maximizing Investments

For more information regarding education and training, support and services to help optimize technology investments, contact Hitachi Data Systems at [www.hds.com](http://www.hds.com) or Brocade at [www.brocade.com](http://www.brocade.com).

## Brocade StorageX System Requirements

### Brocade StorageX Server and Client

Operating system (Brocade StorageX Server or Monitoring Agent)	<ul style="list-style-type: none"><li>■ Microsoft Windows 2000 SP 4</li><li>■ Windows 2003 Enterprise Server 2003, SP1, R2 (32-bit)</li></ul>
Operating system (Brocade StorageX Client Only)	<ul style="list-style-type: none"><li>■ Microsoft Windows 2000 SP2, SP3, SP4, or Windows XP Professional, SP1, SP2 to manage roots on Windows NT 4 or Windows 2000 servers</li><li>■ Microsoft Windows XP Professional, SP1, SP2, or Windows Server 2003, SP1, R2 (32-bit) to manage multiple roots on a single Windows Server 2003</li></ul>
Database engine (local or remote)	<ul style="list-style-type: none"><li>■ Microsoft SQL Server 2000 Desktop Engine (MSDE) SP3</li><li>■ Microsoft SQL Server 2000 Standard or Enterprise Edition SP3, SP4</li><li>■ Microsoft SQL Server 2005</li></ul>
Microsoft .NET Framework 2.0	
Internet Explorer 5.5, 6, 7	
Windows Script Host 5.6	
(Recommended) 2GB RAM or better, (Recommended) 2GHz or faster processor	
Disk space: 500MB or more (additional 75MB for MSDE installation)	
Minimum video display of 1024x768 and 256 colors (use of more than 256 colors is recommended for optimal display)	
Brocade StorageX components must be installed on local fixed NTFS disks	
Vista and Longhorn platforms and 64-bit operating systems are not supported	

### Brocade StorageX Replication Agent

Operating system	<ul style="list-style-type: none"><li>■ Microsoft Windows 2000 SP 4</li><li>■ Windows 2003 Enterprise Server 2003, SP1, R2 (32-bit)</li><li>■ Red Hat Enterprise Linux 4.0</li><li>■ Solaris 10</li></ul>
Microsoft .NET Framework 2.0	
(Recommended) 2GB RAM or better, (Recommended) 2GHz or faster processor	
Disk space: 10MB or more	

## Hitachi Data Systems Corporation

**Corporate Headquarters** 750 Central Expressway, Santa Clara, California 95050-2627 USA  
Contact Information: + 1 408 970 1000 [www.hds.com](http://www.hds.com) / [info@hds.com](mailto:info@hds.com)

**Asia Pacific and Americas** 750 Central Expressway, Santa Clara, California 95050-2627 USA  
Contact Information: + 1 408 970 1000 [www.hds.com](http://www.hds.com) / [info@hds.com](mailto:info@hds.com)

**Europe Headquarters** Sefton Park, Stoke Poges, Buckinghamshire SL2 4HD United Kingdom  
Contact Information: + 44 (0) 1753 618000 [www.hds.com](http://www.hds.com) / [info.uk@hds.com](mailto:info.uk@hds.com)

Hitachi is a registered trademark of Hitachi, Ltd., and/or its affiliates in the United States and other countries. Hitachi Data Systems is a registered trademark and service mark of Hitachi, Ltd., in the United States and other countries.

All other trademarks, service marks and company names are properties of their respective owners.

Notice: This document is for informational purposes only, and does not set forth any warranty, express or implied, concerning any equipment or service offered or to be offered by Hitachi Data Systems. This document describes some capabilities that are conditioned on a maintenance contract with Hitachi Data Systems being in effect, and that may be configuration-dependent, and features that may not be currently available. Contact your local Hitachi Data Systems sales office for information on feature and product availability.

Hitachi Data Systems sells and licenses its products subject to certain terms and conditions, including limited warranties. To see a copy of these terms and conditions prior to purchase or license, please go to <http://www.hds.com/corporate/legal/index.html> or call your local sales representative to obtain a printed copy. If you purchase or license the product, you are deemed to have accepted these terms and conditions.

© Hitachi Data Systems Corporation 2008. All Rights Reserved.  
DS-042-A DG February 2008