



## Local Replication Solutions for Hitachi Modular Storage Systems

Hitachi ShadowImage™ In-System  
Replication Software and Hitachi  
Copy-on-Write Snapshot Software

Partner Beyond Technology





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## Hitachi ShadowImage™ In-System Replication Software and Hitachi Copy-on-Write Snapshot Software

Small- and medium-sized businesses, facing the same business continuity challenges as their enterprise-level counterparts, can keep data assets protected and available with midrange local replication solutions from Hitachi Data Systems.

### Hitachi ShadowImage Software and Hitachi Copy-on-Write Software—Maximum Flexibility in Data Asset Use and Protection

Hitachi Data Systems provides innovative, storage-based technology solutions for enabling continuous business operations for all companies. Business continuity means partnering with you to understand your key business problems and requirements and providing robust, application-focused storage solutions that enhance your company's operational efficiency and resilience.

The first line of defense for effective protection of data assets lies in providing a highly available storage environment that can enable data replication locally. Storage system-based replication is not only application-transparent but is also operating system-independent, because the processes are driven by the storage system.

By providing nondisruptive, high-speed data replication within any Hitachi storage system, Hitachi software enables immediate use of data in decision support, software testing and development, and backup operations. Used in combination with the Hitachi Thunder 9500™ V Series and TagmaStore™ Adaptable Modular Storage or Workgroup Modular Storage product lines, Hitachi local replication software provides a scalable, cost-effective, modular storage system solution for a variety of business needs and applications in the midrange market space.

Two technologies are available for use with Hitachi modular storage systems for gaining maximum flexibility in data asset utilization and protection:

- ∴ Hitachi ShadowImage™ In-System Replication Software provides full-volume cloning capabilities.
- ∴ Hitachi Copy-on-Write Snapshot software offers snapshot features.

### Hitachi ShadowImage In-System Replication Software

The high-speed nondisruptive local mirroring technology of Hitachi ShadowImage™ software rapidly creates a copy of mission-critical information within Hitachi storage systems. ShadowImage software keeps data RAID-protected and fully recoverable—without affecting service or performance levels. Replicated data volumes can then be split from the host applications and used for system backups, application testing, and data mining applications while business continues to run at full capacity.

### Business Benefits

#### Ensure Business Continuity

- ∴ Shortens restart and recovery times with the consistency-group function, which provides multivolume, point-in-time copies for applications and databases that share or span multiple volumes

- ∴ Reduces recovery from data corruption time dramatically through the ShadowImage QuickRestore feature
- ∴ Replicates large data volumes without impacting service levels, timing out, or affecting performance levels

### Improve Productivity and Processes

- ∴ Reduces testing and deployment time and increases the accuracy of application development by providing always-available copies of current production data
- ∴ Increases competitive advantage through the ShadowImage QuickSplit function by facilitating the sharing of and immediate access to time-critical information
- ∴ Enables normal backup operations on a copy of up-to-date production data while critical applications run unaffected

### Reduce Operational and Capital Costs

- ∴ Allows business to remain online during data center activities, eliminating the need for 24/7 resources to perform these tasks
- ∴ Enables IT to refocus resources onto revenue-driven projects

## Prerequisites

### Quick Start Service for Hitachi ShadowImage In-System Replication Software

This required service helps you with project planning for and installation and configuration of ShadowImage software. Hitachi Data Systems storage consultants help your technical personnel roll out the software across your enterprise storage environment.

To address your overall business continuity needs, including backup and recovery, Hitachi Data Systems delivers services designed to integrate Hitachi TrueCopy™ Remote Replication software and ShadowImage software.

## Hitachi Copy-on-Write Snapshot software

The high-speed, nondisruptive technology of Hitachi Copy-on-Write Snapshot software rapidly creates as many as 14 point-in-time copies of any data volume within Hitachi storage systems, without having an impact on host-service or performance levels. Because snapshots store only the changed data blocks in the Copy-on-Write Snapshot storage pool, the volume of storage capacity required for each Copy-on-Write Snapshot copy is substantially smaller

than the source volume. The Copy-on-Write Snapshot copies are fully read/write compatible with other hosts and can be used for rapid data restores, application testing and development, data mining and warehousing, and nondisruptive backup and maintenance procedures.

## Business Benefits

### Ensure Data Availability

- ∴ Reduces recovery time from data corruption or human error considerably via an immediate restore from a disk-resident, point-in-time data snapshot copy
- ∴ Allows frequent data backup operations to be performed nondisruptively, while critical applications run unaffected

### Improve Productivity and Processes

- ∴ Accelerates application testing and deployment by providing always-available copies of current production information
- ∴ Enables immediate access to time-critical information
- ∴ Eliminates the backup window
- ∴ Improves operational efficiency by allowing multiple processes to run in parallel with access to the same information

### Reduce Operational and Capital Costs

- ∴ Allows disk space to be used efficiently through volume snapshots rather than full-copy clones, which helps maximize disk utilization

## Prerequisites

### Quick Start Service for Hitachi Copy-on-Write Snapshot Software

This required service helps you with project planning for and installation and configuration of Copy-on-Write Snapshot software. Through a collaborative, hands-on approach, Hitachi Data Systems storage consultants provide knowledge transfer to enable your technical personnel to roll out the software's capabilities across your enterprise storage environment.

## Complementary Solutions

### Hitachi TrueCopy Remote Replication Software

TrueCopy software is the industry's first storage hardware-based, serverless remote copy solution that replicates data over any distance.

### Hitachi SplitSecond™ Solutions for Rapid Recovery

Built on the foundation of ShadowImage software, SplitSecond Solutions are designed to accelerate backup and restore capabilities within complex database applications. Backup and restore time is reduced from hours to only minutes.

### Hitachi Storage Cluster for Microsoft Environments

Delivered as a turnkey solution incorporating hardware, software, and professional services, this solution leverages Microsoft clustering over TrueCopy software to improve mission-critical availability and reliability within your Microsoft Windows Server 2003 and Windows 2000 environments.

### Business Continuity Consulting Services

Hitachi Data Systems offers three business continuity services to ensure continuous access to information across your enterprise. The services assess your current disaster recovery capabilities and business needs, analyze your areas of risk, and then help you develop the strategy and technical plans you need to achieve nonstop operations.

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