

An essential component of business continuity is the ability to quickly and nondisruptively copy data within any Hitachi storage system or virtualized storage pool. Hitachi Thin Image snapshot software enables rapid copy creation for immediate use in decision support, software testing and development and data protection operations.

Hitachi Thin Image Snapshot Software

Snapshot Software for Enterprise Storage

Hitachi Data Systems provides innovative, storage-based technology solutions that support continuous business operations for companies of all sizes. Enabling business continuity means partnering with you to understand your key business challenges and requirements. It also means providing robust, application-focused storage solutions that enhance operational efficiency and resilience without impacting production data or causing business downtime.

Today's prudent business-continuity and risk-mitigation strategies must support essential capabilities in an optimized manner. Requirements include the ability to quickly replicate data for critical application processing, testing and development of new applications, zero downtime recovery, data migration and more-frequent backup operations.

The high-speed, nondisruptive snapshot technology of Hitachi Thin Image snapshot software rapidly creates up to one million point-in-time copies of mission-critical information within any Hitachi storage system or virtualized storage pool, without impacting host service or performance levels. Because snapshots store

only the changed data, the volume of storage capacity required for each snapshot copy is substantially smaller than the source volume. As a result, Hitachi Thin Image snapshot software can provide significant savings over full volume cloning methods. Hitachi Thin Image snapshot copies are fully read/write compatible with other hosts and can be used for system backups, application testing and data mining applications while the business continues to run at full capacity.

Application-consistent Thin Image snapshots can be orchestrated using Hitachi Data Instance Director (HDID) software. HDID supports Microsoft® Exchange and SQL Server®, as well as Oracle databases on Linux operating systems. These snapshots can be easily created as part of a complete data protection workflow, using the unique whiteboard-like HDID interface. HDID can also trigger a Thin Image snapshot on the remote side of a distance replication pair.

Hitachi Thin Image software is part of the Hitachi Local Replication bundle, which also includes Hitachi ShadowImage Replication software and Hitachi Replication Manager software.

Business Benefits

Ensure Business Continuity

- Reduces recovery time from data corruption or human error considerably through an immediate restore from a disk-resident, point-in-time data snapshot copy.
- Enables normal backup operations on a copy of up-to-date production data while critical applications continue to run unaffected. May eliminate the backup window altogether by creating point-in-time data snapshot copies for data protection purposes.
- Enables disaster recovery plan testing in conjunction with distance replication solutions like Hitachi Universal Replicator software.

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 by enabling immediate access to time-critical information for decision support, populating data warehouses, performing analysis, or other data mining operations.

- Improves operational efficiency by allowing multiple processes to run in parallel with access to the same information.

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.
- Maximizes the storage infrastructure by leveraging the virtualization capabilities of the Hitachi Virtual Storage Platform (VSP) family, including the VSP F series and VSP G series.
- Saves up to 75% or more disk space by storing only changed data blocks rather than full-volume copy clones, maximizing disk utilization.

Hitachi Thin Image Features

- Asynchronous operation greatly improves response time to host, enabling rapid point-in-time copy creation without impacting production systems.
- Enhanced metadata table structure supports super-fast data recovery of just the data you need.
- "Floating devices" eliminate the need to assign a logic device (LDEV) address for each snapshot generated. An LDEV address only needs to be assigned when the snapshot generation is mounted to the operating system.
- Maximum capacity up to 5PB enables support and protection of more virtual machines or larger data sets.

SOLUTION HIGHLIGHTS

Hitachi Thin Image Specifications	Hitachi Virtual Storage Platform G1000	Hitachi Virtual Storage Platform F200, F400, F600 and F800	Hitachi Virtual Storage Platform G200, G400, G600 and G800
Maximum Number of Snapshot Copies per Source Volume	1 million	100,000	100,000
Maximum Capacity per Source Volume	256TB	256TB	256TB
Maximum Capacity per Pool	5PB	5PB	5PB
Maximum Capacity per System	12.3PB	5PB	5PB
Maximum Number of Consistency Groups per System	2,048	2,048	2,048

- Up to one million snapshots per system means snapshots can be maintained for longer periods of time and/or can be taken more frequently to meet stricter recovery point objectives (RPO).

Services

Hitachi Data Systems Global Services Solutions provides the Hitachi Thin Image Implementation Service. This service helps organizations improve testing and application deployment operations with high-speed, problem-free data duplication.

Consultants tailor the configuration and integration of Hitachi Thin Image software to serve an organization's backup and recovery application requirements, whether in open systems or mainframe environments.

Complementary and Optional Software

- Hitachi ShadowImage Replication software.
- Hitachi TrueCopy replication software.
- Hitachi Universal Replicator software.
- Hitachi Replication Manager software.
- Hitachi Data Instance Director software.

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