

Nondisruptive, high-speed data replication within any Hitachi storage system or virtualized storage pool is a reality with Hitachi ShadowImage replication software. Use data immediately in decision support, software test/dev and data protection operations.

**DATASHEET**

## Hitachi ShadowImage Replication Software for Hitachi Storage

### Data Replication for Enterprise Storage

Hitachi Vantara provides innovative, storage-based technology solutions that enable continuous business operations for companies of all sizes. Enabling business continuity means partnering with you to understand your key business challenges and requirements, and providing robust, application-focused storage solutions that enhance operational efficiency and resilience.

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

High-speed, nondisruptive local mirroring technology of Hitachi ShadowImage replication software rapidly creates multiple copies of mission-critical information within all Hitachi storage systems in mainframe and open systems environments. 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.

ShadowImage software is part of the Hitachi Local Replication bundle, which also includes Hitachi Thin Image snapshot software. Hitachi Data Instance Director (HDID) software adds application-awareness and full automation to ShadowImage, alleviating replication management headaches.

ShadowImage software provides replication between any storage systems within a virtualized storage pool managed by the Hitachi Virtual Storage Platform (VSP) family or Hitachi Unified Storage VM. Leveraging the storage-virtualization capabilities of these systems, administrators can move data that resides on an externally attached storage system from the source to a target data volume anywhere in the storage pool. This capability includes moving the data to another externally attached system. With ShadowImage software, IT can migrate data volumes from one platform to another to maximize the use of the storage infrastructure.

ShadowImage software can create virtual volumes of thin provisioned volumes created with Hitachi Dynamic Provisioning software. The ShadowImage virtual volumes only consume the actually mapped physical storage. These volumes are defined for the desired capacity of the volume, regardless of the physical disk capacity.

ShadowImage cloning operations are independent of operating system, application or device, allowing efficient and centralized replicated storage volume management. Application-consistent ShadowImage

clones can be orchestrated using Hitachi Data Instance Director software. HDID supports Microsoft Exchange and SQL Server, as well as SAP HANA and Oracle databases. These clones can be easily created as part of a complete data protection workflow, using HDID's unique white-board-like interface. HDID can also trigger a ShadowImage clone on the remote side of a distance replication pair.

### 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 the time to recover from data corruption dramatically: ShadowImage software's quick-restore feature allows an immediate restore from a disk-resident, point-in-time data copy.
- Replicates large data volumes without having an impact on service levels, timing out or affecting performance levels.
- Enables disaster recovery plan testing: In conjunction with distance replication solutions like Hitachi Universal Replicator software, replicas of the data volume can be created through the at-time split capability in ShadowImage; this action does not interrupt the distance replication process.

- Allows virtual volume to virtual volume replication via Dynamic Provisioning software, which requires the disk space actually used, not the virtual volume size.

### 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.
- Supports a 3-data-center combination of global-active-device (for high availability) with Universal Replicator and delta-resync to allow tight recovery time and recovery point objectives (RTO/RPO) for disaster recovery protection. This protection is effective for WAN distances in the event that a regional disaster affects both local (metro distance) sites.
- Increases competitive advantage through the quicksplit function of ShadowImage by facilitating the sharing of and immediate access to time-critical information; this information can be used for decision support, populating data warehouses, performing analysis, test and development, or other data mining operations.
- Enables normal backup operations on a copy of up-to-date production data while critical applications continue to run unaffected.
- Simplifies data migration between storage systems.

### 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 family, including all VSP G series and VSP F series models.
- Allows the use of cost-effective storage for enhanced data protection purposes.
- Dynamic thin-provisioned volumes with ShadowImage software provide operational flexibility and savings in the physical storage required for replication and ongoing operations.

### ShadowImage Advantages

- The ShadowImage software consistency group function allows a user-defined group of ShadowImage volume pairs to be split simultaneously, at a precise moment in time, with a single command. This copy method creates a consistent point-in-time copy of an entire system, database or any related sets of volumes. It is a technique that can replicate data between a primary system and secondary systems anywhere in the world, with full data integrity.
- ShadowImage supports remote replication of Virtual Storage Platform G1000 data protection volumes (DPVOLs) up to 60TB in size; it supports 4TB DPVOL size on other Hitachi Virtual Storage Platform family and Hitachi Unified Storage VM systems.

### COMPLEMENTARY AND OPTIONAL SOFTWARE

- Hitachi Thin Image snapshot software.
- Hitachi's global-active device feature.
- Hitachi TrueCopy replication software.
- Hitachi Universal Replicator software.
- Hitachi Data Instance Director software.

### Services

Hitachi Vantara and its partners provide the Implementation Service for Hitachi ShadowImage replication software. This service helps organizations improve testing and application deployment operations with high-speed, problem-free data replication. Consultants tailor the configuration and integration of ShadowImage software to serve an organization's backup and recovery application requirements, whether in open systems or mainframe environments.

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