HITACHI
Inspire the Next

Hitachi Remote Replication Software for Hitachi Modular Storage Solutions

When developing plans to achieve everyday uptime improvement and rapid recovery in the event of an outage, Hitachi Remote Replication software offers two distinct solution options: Hitachi TrueCopy® Synchronous software and Hitachi TrueCopy® Extended Distance* asynchronous software.

Protect Data Assets, Simplify Data Recovery, Speed Business Recovery

Given today's very competitive business climate, every minute counts. Clients expect speedy service. This, in turn, creates the need for companies of all sizes to provide quick responses and fast deliveries in order to maximize opportunities.

As a result, in the event of an outage, organizations must have the ability to quickly move operations to or restore operational data from a secondary safe site. The secondary site may be within the same metropolitan area, or it could be located thousands of miles away. In either case, rapid operational recovery time is crucial.

However, traditional data recovery processes are labor-intensive and can take up to a few days to achieve. This is especially true if the organization uses tape-based recovery, for example. That is why Hitachi Data Systems provides storage system-based data replication software solutions that simplify data recovery and speed business recovery.

Hitachi Remote Replication software products are key components of the overarching Hitachi Data Systems business continuity solutions portfolio. Hitachi Remote Replication software provides proven application- and host-independent data replication. Copies generated can be used for remote backup, rapid disaster recovery, data warehousing and mining, or data migration. Fully leverage Hitachi modular storage system investments by running data protection services within the system itself.

TrueCopy Synchronous Software Delivers Immediate Replication

For the most mission-critical data situations, replication urgency and backup certainty of already saved data are of the utmost importance. Hitachi TrueCopy Synchronous for Hitachi modular storage addresses these challenges with immediate and robust replication capabilities. This software is built with the same engineering expertise used to develop Hitachi remote replication software for enterprise-level storage environments. It can be used with Hitachi ShadowImage® Replication or Hitachi Copy-on-Write Snapshot software to enable expanded business continuity capabilities. With TrueCopy Synchronous, you receive confirmation of replication and achieve the highest level of replication integrity as compared to asynchronous replication. You can also adopt best practices, such as disaster recovery plan testing with online data.

TrueCopy Extended Distance Software Delivers Asynchronous Replication

When fast performance and geographical distance capabilities matter more, TrueCopy Extended Distance software for Hitachi modular storage provides bi-directional, long-distance, remote data protection. TrueCopy Extended Distance supports data copy, failover and multigenerational recovery without affecting your applications. It maximizes bandwidth utilization and reduces cost by providing write-consistent incremental changes. TrueCopy Extended Distance software enables simple, easy-to-manage business continuity that is independent from complexities of host-based operating systems and applications.

Business Benefits

Ensure Business Continuity

- Provides distance replication while maintaining application and data integrity
- Enables integrated and centralized host-independent data replication for a wide range of operating environments, including virtualization
- Improves business resilience by enabling disaster recovery testing with online data
- Minimizes operational disruption of planned maintenance or outage events
- Allows point-in-time operation recovery choice as multiple generations of disk-based point-in-time copies are created (TrueCopy Extended Distance only)

Improve Productivity and Processes

- Enables improved service levels and enables quick recovery during unplanned downtime
- Optimizes resource utilization by offloading processing and data to alternate systems
- Enables normal backup operations on a copy of up-to-date production data while critical applications run unaffected
- Simplifies site maintenance and application development by replicating write-consistent data to a local or remote site
- Scales easily: Complexity does not increase as environment grows. There are no dependencies upon capacity licensing or software agents.

TECHNICAL SPECIFICATIONS

Physical Characteristics

Supported platforms	Hitachi TrueCopy® Extended Distance: Hitachi Adaptable Modular Storage 500, 1000 and 2000 family systems Hitachi TrueCopy Synchronous: all models of Hitachi Adaptable Modular Storage and Hitachi Workgroup Modular Storage
Command and control user interface	Hitachi Command Control Interface (CCI) software, Hitachi Storage Navigator Modular (SNM2) software (GUI and CLI), Volume Shadow Copy Service (VSS) provider
Synchronous mode	Yes, via TrueCopy Synchronous software
Asynchronous mode	Yes, via TrueCopy Extended Distance software; Adaptable Modular Storage 500, 1000 and 2000 family only
Hosts cycles required	No
Remote connectivity	Fibre Channel; IP available via supported multiprotocol router or channel extenders
Paths	Dual paths are required (one per controller)
Number of pairs (TrueCopy Synchronous)	Adaptable Modular Storage 2500: 4,094 Adaptable Modular Storage 2300: 4,094 Adaptable Modular Storage 2100: 2,046 Adaptable Modular Storage 1000: 4,094 Adaptable Modular Storage 500: 2,046 Adaptable Modular Storage 200: 510 Workgroup Modular Storage 100: 510
Number of pairs (TrueCopy Extended Distance)	Adaptable Modular Storage 2500: 2,046 Adaptable Modular Storage 2300: 2,046 Adaptable Modular Storage 2100: 1,022 Adaptable Modular Storage 1000: 2,046 Adaptable Modular Storage 500: 1,022
Pair structure	1:1 (S-VOL per P-VOL)
RAID configuration	P-VOL and S-VOL can be different RAID levels
Supported RAID levels	P-VOL and S-VOL: RAID-1+0, RAID-5, RAID-1, RAID-6
Drive types	P-VOLs can be Fibre Channel or SATA (Fibre Channel recommended for P-VOL); S-VOLs can be Fibre Channel or SATA
Host interface	Fibre Channel, 1G iSCSI
Size of P-VOL and S-VOL	P-VOL = S-VOL
Consistency groups	Yes — 16/subsystem. Many applications span multiple volumes. A consistency group ensures that an operation is performed at the same point in time on all volumes within the group, enabling application consistent snapshots (TrueCopy Extended Distance only)

Notes: P-VOL = Primary volume (local), S-VOL = Secondary volume (remote).

* Hitachi Adaptable Modular Storage 500, 1000 or 2000 family systems only

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