

Hitachi Dynamic Replicator Software

Hitachi Dynamic Replicator software delivers cost-effective data recovery solutions for nearly any application. Using a unique hybrid technology, it provides a single solution that supports clustering, heterogeneous servers and storage while preserving existing investments and infrastructure.

Secure Data, Ensure Continuous Business Operations

The Business Challenge

Recovery is a critical concern for enterprises of all sizes, and it must be addressed remotely (for disaster recovery) and locally (for daily recovery). Disaster recovery is recognized as a need, but many enterprises cannot afford to implement it effectively, in a way that supports recovery requirements. Most enterprises are already backing up locally and using tapes for disaster recovery, but they may be experiencing issues with backup windows, data loss on recovery, lengthy recovery times or recovery reliability. Because of the complexity of today's IT environments, most enterprises use multiple products and tools for recovery requirements, which leads to high management complexity and cost.

Data recovery provides a strong foundation, but alone it is not sufficient to meet comprehensive recovery needs. Data is only useful when applications that can use that data are available. Application recovery also must be addressed to ensure continued business operations, but this generally requires human

intervention, further adding to infrastructure complexity, cost and recovery risk.

A Unified Approach to Data Protection

Hitachi Dynamic Replicator leverages the advantages of disk-based data protection to provide application-aware recovery that can meet remote and/or local requirements. Using unique hybrid recovery technology, Dynamic Replicator captures changes to data in real time as they occur and offers flexible recovery to any previous point in time. This feature ensures fast, reliable recovery, even when data is corrupted. Automated recovery of application services can be configured to meet either remote or local requirements, going above and beyond the protection offered by conventional replication, backup and clustering products alone.

Dynamic Replicator collects changes from one or more servers continuously as they occur and sends them to a local target called the Dynamic Replicator server. This

approach allows very large data sets and applications to be protected while requiring very little network bandwidth.

From the Dynamic Replicator server, data can be replicated simultaneously to a local repository and a remote repository for disaster recovery purposes. Many-to-one replication support offers the option of remote office data protection configurations that minimize tape infrastructure and manual involvement in locations that may not have access to sophisticated backup expertise.

Recoveries can occur from remote or local locations, and can meet very stringent recovery point or recovery time objectives (RPO/RTO). Dynamic Replicator enables businesses to address their recovery needs through a cost-effective and scalable solution.

Application consistency is enforced at regular intervals through Microsoft Volume Shadow Copy Service (VSS) integration on Microsoft Windows and native application specific mechanisms on Linux and Sun

Solaris systems. Application consistency is also enforced at the guest level in virtual environments, such as VMware ESX, Xen Server and Microsoft Hyper-V. These application-consistent points are tagged by a bookmark and archived as part of the continuous data protection (CDP) data. They can be leveraged to perform application-consistent recoveries within stringent RTOs.

Hitachi Dynamic Replicator Benefits

- Simple, cost-effective disaster recovery solutions for any application that supports long distance requirements using IP-based networks
- Faster and more reliable data and application recovery through automated policy-based software solutions
- Granular recovery capabilities to support the most stringent RPO/RTO requirements through the use of a unique hybrid recovery technology
- Preservation of existing investments in other data protection products and processes; single solution supports heterogeneous servers and storage
- Sparse retention of fewer application points for older data
- Transparent replication to applications and file systems

Scalable, High-value Disaster Recovery

Hitachi Dynamic Replicator supports cost-effective disaster recovery configurations that leverage asynchronous, IP-based replication and support all fabrics (QLogic, Brocade and Cisco) as well as heterogeneous servers and storage. The solution scales well as it grows (both in terms of storage capacities and number of supported servers) because most of the processing associated with moving the data is off-loaded to the Dynamic Replicator server. When recovery is required,

Dynamic Replicator provides unified protection for all aspects of storage, from volumes to servers and virtual machines. It can immediately generate recoverable images, and those images can be mounted on local recovery targets or at targets at the disaster recovery site. If desired, production applications can be run at the disaster recovery site. Then, when the primary site is again ready to be brought online, Dynamic Replicator can restart primary site operations using the latest data state.

Automated Application Recovery

Hitachi Dynamic Replicator also supports application failover and failback, uniquely combining a backup and disaster recovery solution with an application availability management solution on a single platform. Based on policies established by the administrator, Dynamic Replicator may automatically recover applications locally, making services available from a different physical server in a manner completely transparent to clients. Alternatively, administrators can perform a “one button” failover to a remote location. Dynamic Replicator software’s automated application recovery can be used with any application, and it supports faster, more reliable recoveries.

Application-aware Solutions Make Deployments Easy

To simplify deployments, Hitachi Dynamic Replicator provides a range of application-aware solutions, all of which reside on and are managed centrally from a single, secure, web browser-based management console. Dynamic Replicator solutions include application-specific functionality, including application-consistent, transparent point-in-time creation and usage, and the management of application failover and failback, even though they are managed under a

common set of policies. Multiple application recovery solutions can all reside on a single Dynamic Replicator server, although multiple Dynamic Replicator servers can be deployed to meet scaling requirements.

These solutions are available for key enterprise applications, such as: Microsoft Windows, SQL Server, SharePoint (single item restore) and Exchange (includes 2010 and single item restore); Oracle; Blackberry Server; SAP; Linux; Sun Solaris and Xen Server; and Oracle RAC, Solaris and Linux clustering.

In providing the recovery foundation for various application environments, the key advantage Dynamic Replicator offers is its ability to retroactively choose the optimal point from which to start immediate and reliable recovery operations.

Unique Hybrid Recovery Technology

Unique, hybrid recovery technology in Hitachi Dynamic Replicator translates directly into value propositions for business. It accommodates heterogeneous servers and storage (and storage architectures like DAS, SAN, NAS, iSCSI and Fibre Channel), while providing recovery solutions that are tailored to specific application environments. Dynamic Replicator leverages cost-effective IP-based networks for data capture and replication, employing continuous data protection for granular recovery and asynchronous replication to support long-distance disaster recovery solutions. Its flexible design preserves existing investments in hardware, software and processes while providing the benefits of disk-based recovery and maximum freedom in purchasing and deploying new products.



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