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OVERVIEW

Business Continuity and Disaster Recovery Solutions

Disaster Recovery: Have It Your Way!

The need to protect key business applications from disaster has not abated as recent events such as power blackouts and acts of terrorism have shown. Different organizations in different industries, and indeed different applications and data sets within an organization, have differing requirements for resiliency.

Certain regulatory bodies are increasing the pressure for businesses to implement true out-of-region disaster recovery. Is 100 miles enough distance? Is being up and running on the same day good enough? What is the trade-off between distance and data currency? Does the solution ensure complete integrity of data?

Is your business continuity and disaster recovery solution easy to manage, or does it require constant administrative attention to keep it current and effective? Are you using multiple solutions to cover different data types and different potential disaster types?

Hardware- and Software-Based Replication With Hitachi

Hitachi Data Systems can help to navigate these challenges through an advanced set of business continuity and disaster recovery solutions based on hardware- and software-based replication. Choose these solutions to:

- Allow for advanced multi-data-center replication strategies to copy data beyond regional-area disaster range with full data integrity and no data loss.
- Avoid impact on application performance by using in-system replication capabilities or the local backup copy of data.
- Improve productivity through the use of non-disruptive copies of real production data for data mining and application testing.
- Use the right solution for each type of data: storage-based replication for the most critical data; and software-based replication integrated with backup for standard data.
- Active-active storage clustering enables always-on functionality across two locations, up to 500km apart. Synchronous replication provides metro-area recovery from local disasters. And asynchronous replication provides long-distance protection from large regional events.

Achieve Rapid Restart With No Data Loss

To ensure business continuity, an active-active storage cluster provides consistent availability, with no need to fail over or fail back, when one of the sites goes off-line. To plan for a widespread regional event, the best disaster recovery practice is a three-site arrangement. This approach uses active-active clustering or synchronous replication to a nearby site to enable zero data loss and near-instant recovery, and asynchronous replication to a long-distance site (see Figure 1). This can be achieved flexibly, reliably and cost-effectively, with Hitachi Remote Replication.

- Comply with stringent out-of-region requirements by implementing innovative advanced 3-data-center (3DC) strategies.
- Achieve the best of both worlds for data protection: rapid recovery over any distance, with no data loss and full data integrity.
- Improve productivity through the use of virtual copies of real production data for data mining and application testing.
- Combine with Hitachi Data Instance Director (HDID) to simplify, automate and orchestrate storage-based snapshot and replication workflows.
- Fully leverage the power built into Hitachi Virtual Storage Platform (VSP) family storage systems, including VSP F series, VSP G series and NAS module, as well as the Hitachi Unified Compute Platform family of converged systems.

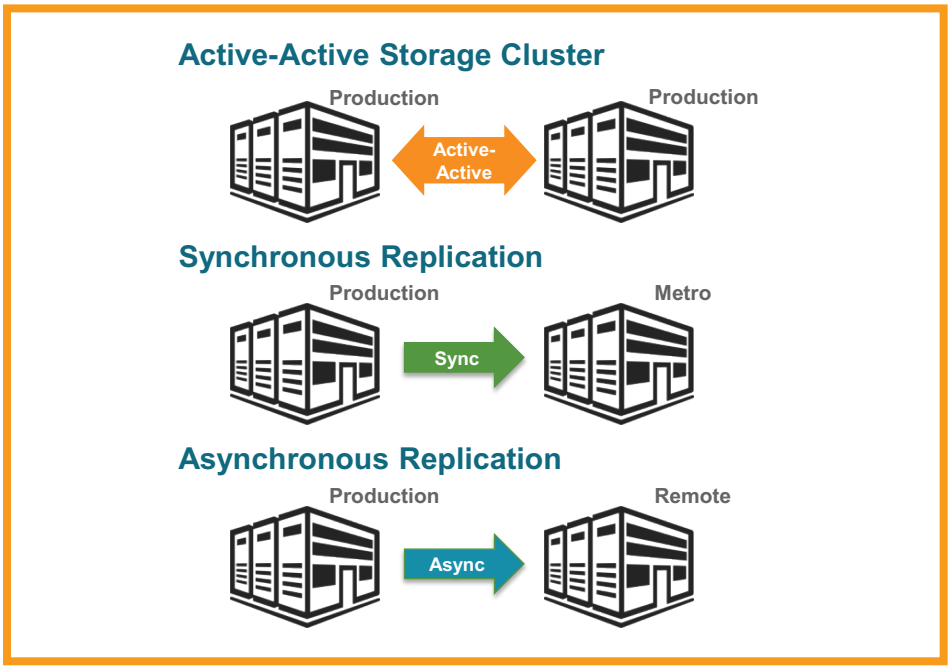

Figure 1. Ensure business continuity with Hitachi Remote Replication.

2 Data Center or 3 Data Center: Which Strategy Is Right for You?

HDS: 3DC Business Continuity and Disaster Recovery
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Use a 2 data center (2DC) strategy when the two sites are within synchronous replication distance limits and meet geographical dispersion requirements, and no amount of data loss is acceptable. When using only asynchronous replication, farther distances will increase transmission latency, resulting in a variable amount of new data loss.

Use a 3DC strategy when you can't get two sites within acceptable synchronous distance to meet the requirements for geographical dispersion and high availability, and when the requirement is no data loss (see Figure 2).

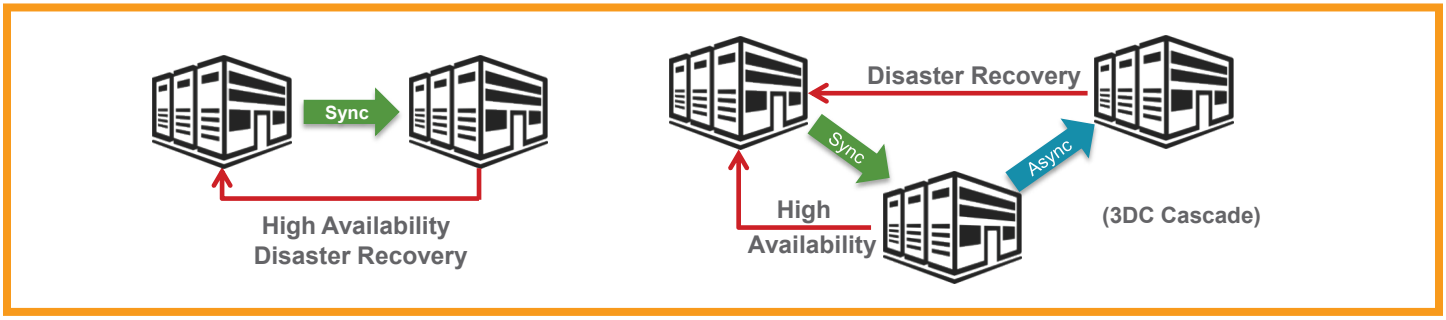

Figure 2. Choose a 2DC (left) or 3DC (right) strategy to meet business risk requirements.

Hitachi Data Instance Director dramatically simplifies business continuity and disaster recovery operations with an integrated, flexible and efficient platform that improves business resiliency while reducing costs and risk of data loss.

Integrated Backup and Disaster Recovery Software

The potential impact of application outages and data loss can be staggering. That's why disaster recovery is among the most vital of IT operations for businesses that require the enterprise agility and availability to handle unplanned outages caused by anything from intrusions to significant natural events. In addition to unforeseen challenges, planned outages that include scheduled updates, migrations or even merger and acquisition activity, must be considered.

Hitachi Data Instance Director dramatically simplifies business continuity and disaster recovery operations with an integrated, flexible and efficient platform that improves business resiliency while reducing costs and risk of data loss.

HDID unifies backup, continuous data protection (CDP), storage-based snapshot and replication management, and archive technologies in a single platform, managed through a unique, whiteboard-like user interface. With HDID, you can easily create and manage complex data protection, retention and recovery workflows that meet demanding business requirements.

HDID greatly simplifies replication management and reduces the risks of human error and changes in the production environments. In conjunction with Hitachi storage and converged systems, HDID can:

- Discover and adopt existing replication pairs.
- Support global-active device (active-active clustering), Hitachi TrueCopy (synchronous) and Hitachi Universal Replicator (asynchronous) replication.

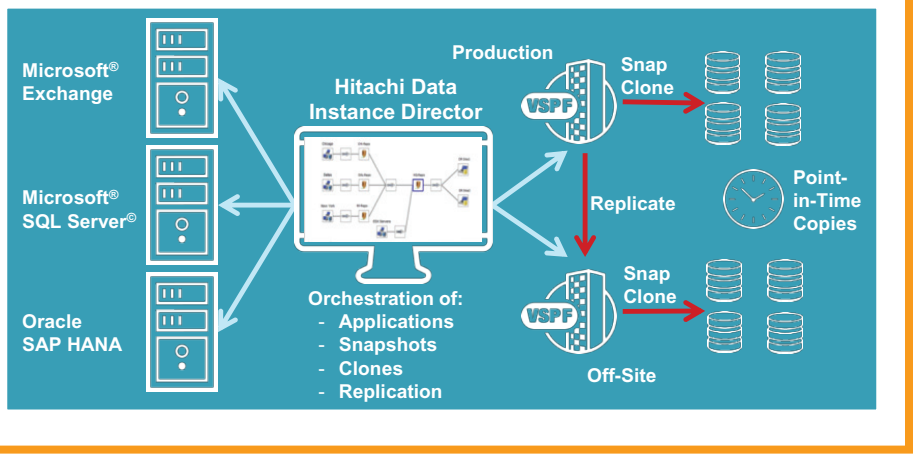

Figure 3. With HDID, you can easily create and manage complex data protection, business continuity and disaster recovery workflows that meet demanding requirements.

BUSINESS-DEFINED RESILIENCE IS A BASIC REQUIREMENT

Integrated backup and disaster recovery software provides a wide range of granular, policy-based protection and recovery capabilities.

- Mix and match storage-based local and remote replication technologies, including snapshots and clones with synchronous and asynchronous off-site replication.
- Easily automate and orchestrate complex workflows to meet individual application and business unit requirements for data protection, business continuity and disaster recovery.
- Hitachi storage-based replication technologies offer automated failover and failback, across multiple distances, for applications and data that must always be available.
- For critical applications and data, deploy a 3DC topology that provides zero data loss against both local and regional disasters.

- Eliminate the need to create and manage replication configuration files and scripts.
- Monitor and report on replication performance.

Optimize disaster recovery operations with flexible options for replication or WAN-optimized deduplication integrated into a single platform solution (see Figure 3).

- Take advantage of the power of Hitachi Remote Replication, including Hitachi TrueCopy, Hitachi Universal Replicator and global-active device technologies, from within a unified copy data management solution.
- Improve business continuity with integrated system-based replication.
- Easily create nondisruptive remote storage-based snapshots and clones at the disaster recovery site for data repurposing. For example, these virtual copies of production data can be used for test and development operations, to support e-discovery processes, and many other practices.

All Disaster Recovery Solutions Are Not the Same

- Find out which disaster recovery and business continuity solutions will be the best fit for the various resilience requirements of your organization.
- Hitachi Data Systems Global Services Solutions group can help you evaluate your business objectives and design and deploy the proper implementation to meet them.
- Contact DP-Sales@hds.com to schedule an initial consultation.

To learn more, please visit HDS.com/go/protect.

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