

High Availability, Business Continuity and Disaster Recovery Solutions

Disaster Recovery: Have It
Your Way!

OVERVIEW

The need to protect key business applications from disaster has not abated as recent events, such as historically powerful storms, power blackouts and acts of terrorism have shown. However, different organizations in varied industries, and disparate applications and datasets within an organization, have differing requirements for resiliency. Your resiliency plan should account for the value of the data being protected.





Building a Business Resiliency Plan Can Be a Complicated Exercise

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?

Hitachi Vantara can help to navigate these challenges with modern, flexible, automated technologies.

Achieve the Resiliency Your Business Requires

- Active-active storage clustering enables always-on functionality across two locations.
- Long-distance, asynchronous remote replication assures recoverability outside of any potential disaster zone.
- Advanced multi-data-center replication strategies copy data beyond a regional-area disaster range with full integrity and no loss.
- Avoid impact on application performance by using storage-accelerated local and remote replication.
- Use the right technology for each type of data, but control everything from one easy-to-use interface.

“

We have had a very good experience with Hitachi replication tools. Issues have been minimal, and it has proven itself to be a stable product.

”

Jason Schimming, Manager
Infrastructure, Facilities
and Storage
Latrobe University

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. This is available with every Hitachi Virtual Storage Platform array, from midrange to enterprise.

Comply With Stringent Out-of-Region Recovery Requirements

When business operations require an instant failover capability, clustered or synchronous replication within regional distances are used. Often, a recovery capability far outside the local region is required to protect against widespread disruptions.

Innovative, high-performance 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.

Enable Agile Copy Services Across the Enterprise

Many departments within the organization require copies of current production data to fulfill their functions. These copies can be automatically created, refreshed and expired, in any location, with no disruption to the production applications.

Satisfy the data needs of DevOps, Finance, Legal, Sales and other departments without slowing down primary applications. The copies can be full clones or space-efficient snapshots.

You Shouldn't Need a PhD To Manage Storage Replication

On their own, each local and remote replication technology can be complicated to set up and manage, often requiring professional services. With Hitachi Ops Center Protector, all the complexity is removed.

Eliminate the need to create and manage replication configuration files and custom scripts to achieve application-consistent recovery. Also, continuously monitor and report on replication performance.

Choose the Right Replication Technologies for Each Workload

Fully leverage the power built into Hitachi Virtual Storage Platform (VSP) family storage systems, including VSP E series, VSP F series and VSP G series, plus the Hitachi Unified Compute Platform family of converged systems.

Use local snapshots for operational recovery, clones for data repurposing, active-active clustering for business continuity and asynchronous replication for disaster recovery, individually or in combination.

Avoid the Staggering Impact of Application Outages

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

Policy-based automation and orchestration of rock-solid Hitachi remote replication technologies ensures continuous availability of critical applications and data, and offers fast, seamless recovery capabilities.

Automate End-to-End Copy Data Management

Easily create nondisruptive remote storage-based snapshots and clones at the disaster recovery site for data repurposing. For example, these copies of production data can be used for nondisruptive disaster recovery testing and as the source for long-term backup.

Easily and quickly combine snapshots, clones, synchronous and asynchronous replication into a single workflow to meet local and remote recovery and agile copy service requirements.

Two or Three Data Centers: Which Strategy Is Right for You?

Corporate governance and industry-specific regulations will inform the decision on which topology each organization should deploy. A requirement of zero data loss will point to active-active or active-passive synchronous replication across a relatively short distance. However, a requirement to sustain operations following a major regional event points to long-distance asynchronous replication.

Two Data Centers Within Synchronous Distance

Use a 2-data-center (2DC) strategy when the two sites are within synchronous replication distance limits and meet geographical dispersion requirements, and when no data loss is acceptable. The topology can be active-active, using Hitachi's global-active device feature, or active-passive, with Hitachi TrueCopy synchronous replication.

Two Data Centers at Greater Distances

Use Hitachi Universal Replicator asynchronous replication to connect two sites across any distance. Unique journaling technology limits the amount of data at risk of loss, despite network latency across long distances.

3-Data-Center Business Continuity and Disaster Recovery

With two sites within regional distance and one site out of the region, use a combination of Universal Replicator with either global-active device or

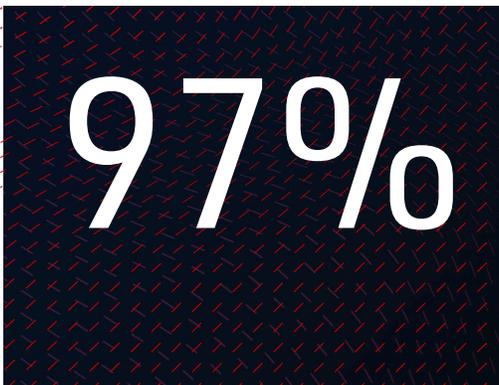
TrueCopy. The topology can be either multisite (primary is connected to both secondary sites) or cascade (the regional secondary site is replicated to the out-of-region site).

Three Data Centers With Delta Resync

Delta resync is a unique, optional component of the Hitachi replication solution portfolio. With it, the out-of-region site can be resynchronized from either of the two in-region sites, enabling near-zero data loss at the remote site. Delta resync can also be automated using Ops Center Protector.

Eliminate the Need for Complex Replication Management

Hitachi Ops Center Protector dramatically simplifies business continuity and disaster recovery operations with an integrated, flexible and efficient platform that handles all the required replication setup to ensure smooth, worry-free data resiliency.



97%

of surveyed IT organizations store business-critical database applications, such as transaction processing, customer relationship management or enterprise resource planning, in their most important enterprise storage systems.

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. Modern technologies, such as storage-based replication, dramatically improve data availability and recoverability with negligible impact on production systems.

- 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.

Which disaster recovery and business continuity solutions will be the best fit for the various resilience requirements of your organization? Hitachi Vantara can help you evaluate your business objectives, and design and deploy the proper implementation to meet them.

Learn more about the options and benefits of adopting a 3-data-center business continuity and disaster recovery strategy in this informative [white paper](#).



We Are Hitachi Vantara

We guide our customers from what's now to what's next by solving their digital challenges. Working alongside each customer, we apply our unmatched industrial and digital capabilities to their data and applications to benefit both business and society.

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