

Remote Backup Service

Mitsui High-tec, Inc.



NEC Storage HS Series hardware and remote backup services are used to migrate core business data to iDC at low cost, successfully enhancing large-scale disaster BCP.

Overview

Aiming to reduce operational loads and enhance existing BCP, Mitsui High-tec, Inc. wanted to back up their business-critical data to a remote location. To improve availability, Mitsui High-tec, Inc. brought in NEC's backup storage "NEC Storage HS Series," taking advantage of its disk storage convenience at tape storage cost. They also employed "NEC Storage HS Remote Backup Service", a monthly fee-based service that provides secure network transfer and storage of backup data to the NEC Data Center. With the help of NEC, Mitsui High-tec, Inc. has successfully ensured business continuity at low cost while simultaneously reducing the load of their backup operations.

Challenges

Remote Backup is the Key to Effective BCP

Mitsui High-tec, Inc., a global leader in the field of ultra-precision machining technology, operates its main office out of "manufacturing town" Kitakyushu and delivers internal components for home appliances and hybrid car motors, precision tools for presses, and semiconductor PCBs to the global market. Mitsui High-tec, Inc. was backing up its critical business servers by using a complex and costly method that involved monthly tape transportation and transfer of daily differential data. "Until 2011, we would transport tapes containing mission-critical data to a specialized outside storage facility once a month," says Information Systems Division General Manager Yasuhiro Nakamura. "But of course in the event of a natural disaster or fire, the one-month old data would be virtually useless. So we also set up a system to transfer daily differential data over the network to a storage unit housed at a business plant in a different prefecture so that we could update the previous month's tape data should the need arise." However, this system was causing Mitsui High-tec, Inc. concern for a number of reasons, including the anticipated scale of recovery work required following a large-scale disaster, the high day-to-day operational load and escalating costs. The Information Systems Division therefore set out a series of goals to reduce operational loads and enhance BCP. "We wanted to create a mechanism whereby critical systems could be restored as soon as possible in the event of a disaster," says Nakamura. "It was vital that we avoid suspension of business."

Customer

- Mitsui High-tec, Inc.

Industry

- Electric Appliance

Challenges

- Costly and complex backup operations
- Laborious restoration anticipated in event of large scale disaster
- High cost of entry for adoption of remote backup
- Steep hurdles for implementation of remote management system

Solution

- NEC Storage HS backup solution
- Fast disk-based backup with inline data deduplication
- WAN-optimized replication with in-flight encryption
- NEC Storage HS Remote Backup Service
- A service to facilitate the safe storage of backup data on NEC Storage HS series housed in an NEC data center
- A monthly service contract to eliminate necessity of on-site hardware
- The removal of operational labor from the backup process

Results

- Enjoys the convenience of disk storage performance at the low cost of tape backup
- Is now prepared to quickly restore business operations thanks to remote backup and establishment of business recovery plan
- Due to the monthly service contract, no longer needs to dispatch technicians or install new hardware at the remote site
- Safely backs up data to remote data center

In December 2011, Mitsui High-tec, Inc. launched a server virtualization project and as the first step, consolidated its critical business servers from 12 machines to three. Subsequently, in January 2012, they started consolidating their backup servers, and at the same time installed NEC's backup storage "NEC Storage HS Series" in the head office machine room with the aim of controlling costs and reviewing the necessity for tape backup operations. Realizing that they could take advantage of the improved convenience of disk storage at the same low cost as tape, Mitsui High-tec, Inc. initiated remote backup activities, a key component of effective BCP.

Solution

Shifting from CapEx to OpEx

To implement remote backup, Mitsui High-tec, Inc. initially considered procuring an additional NEC Storage HS Series, installing it at a business plant in another prefecture, and transferring the data over the network. "But that would have required a full-time administrator in the other prefecture, and there was also the initial cost of installation," says Nakamura. "On top of that, there were concerns regarding earthquake safety, fireproofing, and power supply in the other prefecture. We decided to find out if there was a service that could facilitate backup in a data center that was already resilient to disaster."

In June 2012, Mitsui High-tec, Inc. discovered that NEC would launch its "NEC Storage HS Remote Backup Service" in August, which would provide the infrastructure needed for easy remote maintenance of important data. "NEC's service eliminated the need to arrange storage devices and transport data, and provided the features we needed at a monthly rate of just JPY 90,000," explains Keiji Kato from the IT Promotion Group in the Information Systems Division. "These points became the deciding factor in our selection." Kato also praised the detailed service specifications, which

provided a clear description of the service usage conditions and the scope of NEC's responsibility, as well as available options and aspects of security pertaining to the network line, which were of great concern to the customer.

Auto-Replication of Differential Data to Remote Location

"NEC Storage HS Remote Backup Service" is a service that safely stores all backup data consolidated on NEC Storage HS Series to the NEC Data Center via a network. In the case of Mitsui High-Tec, inc. backup data from the business-critical servers totaling 136 TB is first consolidated on the in-house NEC Storage HS Series and then compressed to 2 TB through NEC's unique de-duplication technology combined with compression (*1). "We are very pleased with the rapid improvement in storage efficiency," says Kato. "We can store data from up to 30 copies, which is now available for later use."

At present, 1.5 TB of data is updated per day, with differential data (*2) being auto-replicated to the remote backup site (NEC Data Center) through a "B FLET'S" consumer internet line. The NEC Storage HS installed at the NEC Data Center provides an additional layer of security as its data is physically separated from the data of other clients through a single-tenant system.

(*1) ... A technique whereby the amount of data to be written on storage can be significantly reduced by first utilizing pointers to existing duplicate data, then compressing the remaining unique data by using an LZO compression algorithm.

(*2) ... NEC Storage HS Series has a feature that uses de-duplication technology to limit transmission to only differential data. For this reason, data can be replicated to a remote location over a low-cost consumer line.

Results

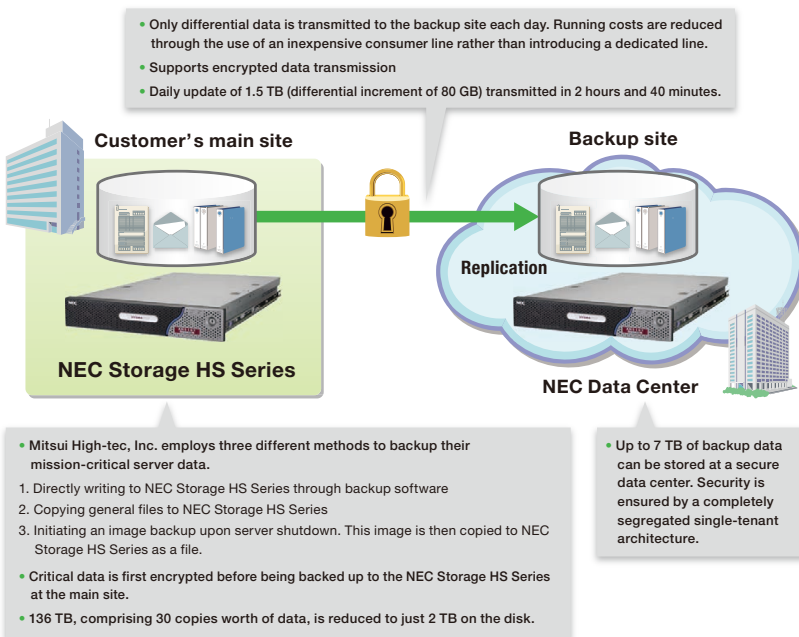
Enhanced Business Continuity, Lower TCO and Lighter Operational Load

The introduction of this service has enabled Mitsui High-tec, Inc. to achieve its initial objective of enhancing business continuity. "At present, backup to NEC Storage HS Series and subsequent replication to remote backup can be

carried out automatically without using any human labor, which has significantly reduced our operational load," says Nakamura.

"Our TCO has also been reduced compared to our original plan of purchasing an additional machine for backup purposes and operating it from the remote location." In Mitsui High-Tec, Inc. disaster countermeasures and BCP had been a major issue of concern for the entire company, but this pioneering approach has allowed remote backup of critical business data to be performed within the company and alleviated a lot of headaches. "All the administrative departments I've talked to are very happy with the IT disaster recovery plan and BCP measures that we developed with the support of NEC," says Nakamura. "I think this has had a very positive effect within the company."

● Flow of operations using "NEC Storage HS Remote Backup Service"



Backup of All Critical Data to a Remote Location

Moving forward, the Mitsui High-tec, Inc. plans to remotely back up all business-critical server data and internally documented data, and is investigating ways to reduce the daily backup cycles even further to enhance recovery efforts and improve the stability of stored data.