

Hitachi Storage Solutions at Work

TietoEnator

INDUSTRY Services: IT Service Provider

SOLUTIONS Tiered Storage/Virtualization, Storage Management, and Consolidation

Hardware—Hitachi TagmaStore® Universal Storage Platform models (2)

Software—Hitachi HiCommand® Storage Services Manager, Hitachi HiCommand Dynamic Link Manager, Hitachi ShadowImage™ Heterogeneous In-System Replication, Hitachi TrueCopy® Synchronous software



“With Hitachi Data Systems, we boosted our data storage services competitiveness by offering new functionality, greater capacity, and unparalleled performance. All of this adds up to best serving our customers’ continuously growing storage needs and tight availability demands.”

*Tuomo Iso-Aho
Department Manager at the Processing & Network Division
TietoEnator*

TietoEnator^{TE}
Building the Information Society

TietoEnator Builds on Golden Rules to Improve Customer Data Storage with Hitachi Platform

Customers come first at TietoEnator, one of Europe's largest IT providers. In the face of unyielding growth in the volume of data TietoEnator was storing and managing for its customers, it was clear that both storage virtualization and data consolidation were necessary to keep pace with 24/7 customer requirements. That's why the company chose to rely on the performance, scalability, and availability excellence of Hitachi TagmaStore® Universal Storage Platforms.

Golden business rules that seem to withstand the tests of time revolve around customers. At TietoEnator, one of Europe's leading IT service corporations, the gold standard is to build a more efficient digital business world, customer by customer. With more than 16,000 employees providing consulting, development, and hosting services to clients in over 25 countries, TietoEnator is busy building the digital economy in such industries as banking, telecom, health care, and forestry. The company is so busy, in fact, that its Processing & Network Division, which handles ICT infrastructure outsourcing services for customers, has seen double-digit growth in data storage requirements.

Building the Digital Economy

The TietoEnator Processing & Network Division offers ICT operations management services for customers who wish to focus on core business competencies. The aim of the unit is to harness all the power, quality, and flexibility possible from cutting-edge technology solutions in order to better manage customer network assets.

The unit's data storage space was distributed among 4 older systems and 110 servers from different suppliers, including Hitachi Data Systems. Over a period of several years, the amount of customer data that TietoEnator was managing doubled from 55TB to 110TB; and then, in a few months' time, it doubled

again to 220TB. The company attributes the exponential growth to a general trend in increasing data retention needs and greater availability requirements. As a result, systems reached capacity, the overload hindered performance, and maintenance costs rose.

"The rapid increase in our customers' data compelled us to search for new, more powerful, and more versatile data storage solutions. The goal was to respond to customer demands for capacity and continuous data availability," recalls Tuomo Iso-Aho, department manager at the TietoEnator Processing & Network Division.

Powering Performance and Capacity

To add power and versatility to TietoEnator's data storage solutions, Iso-Aho wanted to replace legacy equipment with new, proven technology that exuded best-in-class performance and scalability. Along this vein, consolidating end-of-life systems was important, as was plenty of data storage capacity to meet future needs. Increasing customer demands for 24/7 access to their data would also mean that continuous availability would be necessary. Flexibility was another critical requirement to ensure long-term expandability and investment protection. And simplifying administration and maintenance of the systems was key to meeting customer demands and managing growth expectations.

Because TietoEnator had experienced reliability and innovation in previous Hitachi storage systems, Iso-Aho again chose to work with Hitachi Data Systems to build the new storage architecture. For this endeavor, two Hitachi TagmaStore® Universal Storage Platforms were installed and configured to meet the extensive flexibility, vast scalability, and uncompromising performance requirements.

"We expect data storage units to be flexible and expandable. With Hitachi's innovations, we can be sure that the performance and capacity of the platform will correspond to

the needs of our customers in all circumstances. With the new Universal Storage Platform, we can offer our customers powerful, well-performing, and cost-effective data storage solutions,” says Iso-Aho.

Speeding Data Migration

Careful preparations were made for putting the new Hitachi platforms into use. A plan was devised for every one of TietoEnator’s customers, defining the techniques and timetables for moving data from old systems onto the Universal Storage Platforms. Designed with exceptional data movement tools, the



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Universal Storage Platform enables robust storage virtualization across both internal and externally attached systems to create common pools of data storage that can be managed from a single interface. In addition, the Universal Storage Platform also affords TietoEnator the ability to manage logical partitioning of resources and perform universal replication across the enterprise.

Hitachi HiCommand® Storage Services Manager software operates as the main console to centralize administration and optimize resources across the heterogeneous storage environment. For nondisruptive, host-independent replication that runs simultaneously with production activities, TietoEnator uses Hitachi ShadowImage™ Heterogeneous In-System Replication software that keeps data fully RAID-protected and recoverable without hindering performance.

Iso-Aho’s team built a storage area network to which servers were connected via Fibre Channel links. Most of the data migration for TietoEnator customers would move through the SAN onto the Universal Storage Platform. A few customers not familiar with the power of storage virtualization requested more traditional, manual data migration, which TietoEnator accommodated. Hitachi HiCommand Dynamic Link Manager was activated to help manage path failover and multi-path I/O load distribution with the highest levels of availability for better data protection, performance, and access.

Another element of the TietoEnator data center reorganization was data replication to an auxiliary system room. All customer files would be backed up to this secondary location using Hitachi TrueCopy® Synchronous software to make certain that production activity could quickly continue without data loss in the event of disaster.

“More of our customers are expecting their systems to be always available. With the help of these Hitachi solutions, we can guarantee availability even as the environment is updated and expanded,” says Iso-Aho.

Going for the Gold

Once the data migration solution began, more than 600GB of customer data was successfully moved onto the Universal Storage Platform. “With help of Hitachi storage virtualization solutions, we achieved greater availability, and the data migration was significantly faster through virtualization than by traditional methods,” says Iso-Aho.

The revamp project of TietoEnator’s Processing & Network Division reduced by half the number of systems required through consolidation onto the Universal Storage Platform. Diminishing the number of systems also eliminated the maintenance and associated costs of those systems. And with scalability up to 32PB total storage capacity for each Universal Storage Platform, TietoEnator can continue its relentless data growth, while helping to decrease more costly archiving alternatives.

“With Hitachi Data Systems, we boosted our data storage services competitiveness by offering new functionality, greater capacity, and unparalleled performance. All of this adds up to best serving our customers’ continuously growing storage needs and tight availability demands,” beams Iso-Aho.

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