



“With the new hardware, Hitachi Universal Storage Platform V, we experienced significant improvement in the performance of our bank applications.”

*Mr. Tibor Andrásó
 Director of IT Operations
 OTP Bank*



OTP Bank

INDUSTRY Banking

SOLUTIONS *Green Solutions, Enterprise Platform*

Hardware — Hitachi Universal Storage Platform® V (Sun StorageTek 9990V)

Software — Hitachi TrueCopy® Synchronous, Hitachi Resource Manager™ utility package’s cache residency manager feature, Hitachi ShadowImage® Heterogeneous Replication software

Services — Provided by Hitachi TrueNorth Channel Partner Invigor Informatika Ltd.

Hitachi Enterprise Storage Supports Green, Cost-saving Solution for Hungary's OTP Bank

OTP Bank is the largest retail bank in Hungary, with over four million customers. OTP Bank has always made it a priority to raise the standards of its customer service, continuously enhancing and expanding the range of products, services and channels that it offers. With an ever-growing customer base, the demands on OTP storage capacity have also been growing. By upgrading to the Hitachi Universal Storage Platform® V (Sun StorEdge 9990V), OTP Bank has reduced power consumption, freed up floor space, reduced cooling needs in the server room and increased storage capacity.

About OTP Bank

OTP Bank provides full range of financial services to its customers. As the largest bank in Hungary, OTP Bank serves 4.6 million customers. In order to be able to deliver services efficiently to this large customer base, the bank's IT architecture must be robust, scalable and highly available. Total storage usage is around 400TB, and the rate of storage growth is approximately 40TB per year.

OTP Bank uses a wide variety of servers, storage and software from various vendors. Its biggest installed base of servers comes from Sun Microsystems, and its high-end storage, which stores the majority of its data, comes from EMC and Hitachi Data Systems

corporations. The bank's most important software supplier is Oracle corporation, which provides the database and middleware applications for the IT environment.

Task One: Optimize Storage

In 2009, OTP Bank introduced the Operation Optimization Initiative, designed to reduce costs and improve efficiency across the whole IT infrastructure. Starting at the end of 2008, the initiative forced OTP to evaluate its storage. IT Operations department administrators decided that storage used for core banking applications needed to be consolidated and upgraded in order to meet the bank's new cost and efficiency standards.

"Our new policy on optimizing all of our IT infrastructure gave us the opportunity to fully review our current storage and future storage needs. We need a storage system, which would not only improve efficiency, but also reduce costs," explained Director of IT Operations at OTP Bank, Mr. Tibor Andrásró.

Consolidating provided cost savings, through:

- Lowered maintenance costs
- Energy and floor space savings
- Simplified administration
- Better cost-to-performance ratio

Although OTP Bank was not specifically looking for a green solution, they got one with the new Hitachi hardware. They rather needed the extra floor space of the old Hitachi Lightning 9980V™ (Sun StorEdge 9980V) storage system for new server racks.

Task Two: Upgrade Storage

In addition to the Lightning 9980V system, OTP Bank also had a Hitachi Universal Storage Platform V (USP V) before the migration, so a brand new storage purchase was not required. The IT Operations department only had to upgrade the USP V with new disks, cache, and back-end and front-end ports to ready it for the migration. Other brands were not considered, as the department staff was satisfied with the stability, scalability and performance of their old Lightning 9980V storage system.



"There was no question about upgrading to the new Hitachi storage, as we were absolutely satisfied with our previous Hitachi storage and the support service of Invigor."

*Mr. Tibor Andrásró
Director, IT Operations
OTP Bank*

They did not want to change storage platform; they only wanted to consolidate.

Having previously worked successfully with Hitachi Data Systems and Hitachi TrueNorth Channel Partner Invigor Informatika, Ltd., in 2009, OTP Bank decided to upgrade to a USP V.

Prior to the migration, this USP V contained: 44GB of cache, 284 HDDs for a total of 40.83TB raw capacity and 32 front-end ports. After the migration it contained: 60GB of cache, 388 HDDs for a total of 55.79TB raw capacity and 48 front-end ports.

“There was no question about upgrading to the new Hitachi storage, as we were absolutely satisfied with our previous Hitachi storage and the support service of Invigor,” said Mr. Tibor Andrászkó.

The migration was performed by Invigor. Hitachi provided technical support via SAN in online mode using Hitachi TrueCopy® Synchronous software technology and on the host side VERITAS Volume Manager software. Complete migration of the system took 10 days with zero downtime.

“As a customer I am totally satisfied with the results of the migration and the service provided by Hitachi Data Systems. And I am absolutely pleased how smooth the migration went through with no errors. I can say that Hitachi Data Systems knows the rule: ‘always give customers more than they expect to get,’” said Mr. Tibor Andrászkó.

The Results: More than Expected

OTP Bank made use of the following USP V product features:

- Extreme scalability. This allowed the bank to migrate data to new storage, without any loss of performance to servers attached, from the Lightning 9980V system to the USP V.
- TrueCopy Synchronous software. This software supported replication of mission critical data for disaster recovery to USP storage at the other data center.
- Hitachi ShadowImage® Heterogeneous Replication software. This software allowed IT to create point-in-time (PIT) copies of applications for testing and data migration purposes.
- Cache residency manager feature. This feature enabled IT to put redo logs of their most response time sensitive database in cache memory to achieve extremely low I/O response times. In turn, this resulted in database performance improvement.

After the migration, the Hitachi USP V was able to provide as much as 50% performance improvement. With further configurations, such as the operating

system optimization, the reconfiguration of critical volumes and the usage of the cache residency manager feature, improvement in performance was almost 100%, according to OTP Bank. “I can say that Invigor and Hitachi Data Systems proved again why its service and hardware are the best in the market,” stated Mr. Tibor Andrászkó.

Once the USP V was implemented and running, OTP Bank noted a significant drop in power consumption to run the storage system from the reduced need for cooling. This not only lowers the total cost of ownership, but it also benefits the environment.

“The results from the Hitachi Universal Storage Platform V exceeded expectations and provided us with not only improved performance and reduced costs through lower power consumption, but with the increased storage capacity to meet future needs as well.” Mr. Tibor Andrászkó concluded.

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