High-Reliability Hitachi Storage Provides a Foundation for Innovative Financial Services at Alior Bank

Alior Bank is one of the most innovative financial institutions in the Polish market. In just a year, the company launched 3 strategic products. One of these was Alior Sync (now T-Mobile Usługi Bankowe provided by Alior Bank), a next-generation online bank. In order to accommodate such dynamic development and its new automated services, which are required by customers to be available 24/7, Alior Bank needed to modernize its previous storage infrastructure. The bank introduced Hitachi Unified Storage VM and Hitachi Unified Storage 130 to ensure high data availability and maintain an attractive cost-performance ratio.

Alior Bank S.A. launched its operations in 2008. At the moment, it is one of the key financial institutions in the Polish banking market. In December 2012, the bank made its debut at the Warsaw Stock Exchange with the biggest IPO among private companies since the beginning of the Exchange, worth about PLN 2.1 billion in total. In March 2014, less than 18 months since its stock market launch, the bank was included in the WIG20 index, which comprises the 20 biggest companies listed at the Warsaw Stock Exchange.

The institution’s operations are characterized by a dynamic increase of new customers. As of the end of 2013, Alior Bank had 2.12 million customers, which is 42% more than the year before. In 2012, this increase reached 50% year over year. Such a dynamic growth was achieved by setting high quality standards and delivering products that combine the principles of traditional banking with innovative solutions.

Bernard Grzywna
Director of the IT Maintenance Department at Alior Bank S.A.

From our point of view, data availability is the key factor. Since we started using Hitachi Data Systems solutions more than 6 years ago, we have never experienced any failures in our storage infrastructure. Hitachi reliability gives it a clear competitive edge.

**Business Value**

- High data availability and security.
- Storage system reliability.
- Uncompromising performance for critical applications.

**Benefits at a Glance**

**INDUSTRY**
Banking and Finance

**SOLUTION**
File and Content, Virtualization, Replication, Storage Management

**HARDWARE**
Hitachi Unified Storage VM (4), Hitachi Universal Storage Platform V (2), Hitachi Unified Storage 130, Hitachi Unified Storage 110, Hitachi NAS Platform, Hitachi Accelerated Flash

**SOFTWARE**
Hitachi Command Suite

**SERVICES**
Provided by Hitachi TrueNorth Platinum Partner Wasko S.A.
The Challenge for IT: Keep Pace With Business Innovation

In 2012, Alior Bank launched 3 strategic services. In June 2012, the bank introduced Alior Sync, a next-generation online bank with functionalities unique in the Polish market. Within 18 months of the launch, the online solution was used by more than 300,000 customers. A month later, Alior Bank launched the first online currency exchange. Over a single year, the platform was used to make more than half a million transactions. Also in the second half of 2012, Alior implemented the Online Credit Process, the world’s only solution of this type that makes it possible for customers to get a loan entirely online. In 2014, the bank entered into a strategic agreement with telecommunications operator T-Mobile. This move resulted in Alior Sync being rebranded in May 2014 to T-Mobile Usługi Bankowe provided by Alior Bank.

The dynamic development of highly innovative banking products and services is a major challenge for Alior Bank’s IT department. IT specialists are responsible for the development and maintenance of information and communication technology (ICT) services that provide the basis for the bank’s business platforms.

“Based on launching innovative products and services, the bank’s strategy has major consequences for the day-to-day work of the IT department. This approach also needs to be reflected in our IT solutions,” said Director of the IT Maintenance Department at Alior Bank S.A., Bernard Grzywna.

Alior Bank is also proud that it has resigned from using paper in favor of sending information in an electronic form. All data held in document repositories is very important for the correct operation of this institution. Therefore, the IT department needs to ensure suitable protection of digital information and provide quick access to this data.

The Solution: Innovative IT Support for Bank’s Innovative Business Strategy

Along with the development of products and services, Alior Bank decided to modernize its storage technology. The bank’s IT infrastructure is divided between 2 centers located in Kraków. Both data centers are active and each of them has the same storage platforms, where space is configured and allocated for specific applications. Data in IT systems is replicated between the bank’s data centers. In most critical applications and systems, including database systems, the bank uses a replication mechanism built into storage.

“Both data centers run practically all of our applications, including applications used for internal customer service at our offices, such as credit service and verification systems, and our online services, such as online banking, information portals or online credit forms. Internal services such as email or intranet are used by more than 6,000 users,” said Grzywna.

Alior Bank has been cooperating with Hitachi Data Systems since 2008. At this time, the bank purchased and implemented 2 enterprise-class Hitachi Universal Storage Platform V systems. As it grew its storage infrastructure, the bank implemented a number of midrange Hitachi Adaptable Modular Storage 2000 models. After several years, when it became necessary to provide additional capacity, the bank decided to purchase new systems, rather than upgrading the older models. Deputy Director of the IT Maintenance Department at Alior Bank, Tomasz Fryc explains that current Hitachi products ensure high performance and convenient options for expansion of storage systems in the future.

“We decided to continue our cooperation with Hitachi Data Systems for many reasons. First of all, we are very happy with the solutions that we have been using for several years now. Our feelings are confirmed by positive references from financial institutions, worldwide. HDS storage is characterized by a very favorable cost-quality ratio. In addition, Hitachi cooperates in Poland with systems integrator Wasko, a company that we also worked with during previous implementation projects carried out at our bank,” said Fryc.

As with the first HDS implementation, Wasko was involved in the entire process. The company prepared a technical design and an implementation plan. It also prepared a plan to migrate data
from those storage systems for which the bank did not purchase a support service or which stopped meeting performance requirements. Wasko proposed a migration scenario that was spread over time so as to minimize disruption to the IT department and business users.

The Benefits: High Reliability That Supports Banking Operations

Alior Bank implemented 4 Hitachi Unified Storage VM (HUS VM) systems: 2 in each of the centers. The 1st system is equipped with traditional hard drives (more than 170TB of raw storage in total), while the 2nd comprises high-capacity Hitachi Accelerated Flash drives (the basic configuration consists of four 1.6TB drives per one system).

“HUS VM is perfect for those organizations that do not feel the need to implement the largest enterprise systems, and for whom midrange products are not efficient enough or do not have the required functionalities. We did not want to expand our old systems, so HUS VM seemed like the best possible choice,” said Fryc.

Flash drive systems filled a gap in the case of the most critical applications, such as debt collection systems or online banking. These applications require uncompromising performance and instant access to data more than just capacity.

“We are testing this solution and we are very impressed by the high performance offered by the system. With a single drive structure, we can achieve results unmatched by many midrange systems,” added Fryc.

In addition to storing block data and files on a single centralized platform, HUS VM also provides advanced virtualization capabilities. The HUS VM built-in virtualization was used by Alior Bank to consolidate the storage offered by the older storage models and take advantage of dynamic relocation of data between tiers (tiering). Fryc admits that even though the performance of the midrange storage systems purchased in 2008 does not match the contemporary products, thanks to virtualization, the bank does not lose valuable storage: The legacy systems can be allocated for less-critical environments or applications, or used when workloads are lower.

Along with the HUS VM systems, the bank also implemented Hitachi Unified Storage 130, located in one of the data processing centers. Alior Bank uses it mainly as a testing (preproduction) environment for performance and security tests before launching services in a production environment. HUS 130 systems come with Hitachi NAS Platform file modules with built-in deduplication functionality. A file system is preferred because the bank relies on the VMware server virtualization. Thanks to removing excess data, the bank managed to reduce the need for storage by approximately 60%.

Most of the storage system environment is managed via Hitachi Command Suite. This advanced management software enables the storage specialists to access all of the necessary information, including reports or resource utilization views, in a single interface.

"Thanks to Command Suite, which is a very ergonomic solution, indeed, we know exactly how many resources we have. For example, we know if we have enough storage to launch a new service without additional investments. Sometimes it is enough to migrate data and put it in a suitable place. This capability is provided by centralized storage system management," says Fryc.

Due to its IT security and business continuity policies, Alior Bank also uses storage from other manufacturers. However, the managers of the IT Maintenance Department admit that they are exceptionally happy with Hitachi storage. In particular, they stress the high reliability of the system, which ensures 100% data availability.

“From our point of view, data availability is the key factor. Since we started using Hitachi Data Systems solutions more than 6 years ago, we have never experienced any failures in our storage infrastructure. Hitachi reliability gives it a clear competitive edge," concludes Grzywna. From an IT department in the banking sector, which relies heavily on the readiness of its infrastructure, this is the highest praise an IT systems provider can get.