



### Why choose Hitachi?

“The huge technology behind Hitachi systems, as well as the favorable price and the scalability. If our bank introduces a new business service or product to the market, we already have a ready infrastructure to use.”

*Henryk Baniowski*  
 CIO  
 Alior Bank S.A.

### Alior Bank S.A.

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**INDUSTRY** Banking and Finance

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**SOLUTIONS** *Enterprise Platform, Modular Platform, Business Continuity and Replication, Virtualization, Storage Management*

**Hardware** — Hitachi Universal Storage Platform® V, Hitachi Adaptable Modular Storage 500, and Hitachi Adaptable Modular Storage 2100

**Software** — Hitachi TrueCopy® Synchronous, Hitachi Universal Replicator, Hitachi ShadowImage® Heterogeneous Replication, Hitachi Copy-on-Write Snapshot, Hitachi Device Manager, Hitachi Tuning Manager and Hitachi Dynamic Link Manager

**Services** — Implementation services provided by Hitachi TrueNorth Channel Partner WASKO S.A.



WYŻSZA KULTURA BANKOWOŚCI

## Alior Bank S.A. Builds Scalable and Reliable IT Infrastructure with Hitachi Storage and Software

Alior Bank is a nationwide universal bank providing retail and corporate banking services. The bank has already acquired over 600,000 customers, including 50,000 businesses. Deposits are growing dramatically. By September 2010, the deposits value exceeded 5.7 billion zlotys (US\$1.84 billion). Simultaneously, the bank granted loans worth 4.5 billion zloty (US\$1.45 billion). Alior Bank achieved this success and chose to address these subsequent challenges by implementing a Hitachi storage architecture, which ensures effective access to critical banking system operations.

Alior Bank S.A. began operating at the end of 2008 as a nationwide universal bank, servicing all segments of the market spread over two divisions: retail and business. The bank's strategy is balanced and rational development based on principles of traditional banking: transparency, safety, stability, responsibility, advisory, entrepreneurship and innovation. Its product and services portfolio is directed at customers who expect a higher level of service, advice and profitability. The bank provides products and services, which, so far, have only been offered to chosen, high net worth customers, and specialty products that were previously unavailable in the market.

Alior Bank has set itself very ambitious goals: in its first three years it intended to obtain 2% to 4% of the Polish market depending on the segment and to win the trust of around a million customers, achieving profitability in its third year. In July 2010, customers were served in 170 branches and eight business centers.

The bank's headquarters are in Warsaw, while its operational and IT headquarters are in Krakow. Two separate data centers are also located there with full technical support. When planning the expansion of the IT system, the IT department had to take into account not only the bank's current situation but also the future needs of corporate users, possible scenarios of infrastructure

development and the need to implement new business applications.

### Selecting the Storage: No Compromises

The slogan "A higher culture of banking" reflects the Alior Bank's mission, and for this reason the IT director decided on a tried and tested IT solution of the highest quality. "Our bank's business users set very high requirements regarding access to banking systems and the data gathered in them. The situation in which any kind of failure of poor quality IT equipment leading to banking systems going down is unacceptable for us," said Alior Bank CIO, Henryk Baniowski.

An essential element in data center infrastructure is mass storage and the network connecting disk storage systems with operating servers. Alior Bank decided to implement two enterprise-class mass memory systems, one for each data processing center. The Hitachi Universal Storage Platform® V was chosen for its efficiency, reliability, scalability and competitive price. "After carrying out rigorous tests on the platform, it turned out to be the best one. We particularly appreciate the ability to enhance our [two] Universal Storage Platform V mass data systems with new functions, such as virtual resources," said Henryk Baniowski.

Both mass storage platforms are equipped with 146GB and 300GB Fibre Channel disks. All critical support systems are stored on the two Universal Storage Platform V systems.



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In order to ensure that data is current and available between both locations, Hitachi ShadowImage® Heterogeneous Replication software was installed to perform internal copies and Hitachi TrueCopy Synchronous® software to perform replications between Hitachi systems were installed on the Universal Storage Platform systems.

Separate storage infrastructure part was built with two Hitachi Adaptable Modular Storage 500 systems to support resource consuming warehouse applications.

Also part of the storage infrastructure are Hitachi Adaptable Modular Storage 2100 systems equipped with SAS 450GB and SATA 1TB disks. They are used by various business support systems, as well as test and development systems working in the virtual environment powered by VMware software.

TrueCopy Synchronous remote replication software is used to replicate data between the data centers synchronously. Hitachi Tuning Manager software supports the whole infrastructure by monitoring in real time the whole path data is moving on, from systems through servers, SAN environment, to particular disks in storage arrays. This allows administrators to quickly identify any bottlenecks that can happen in the infrastructure.

## Assembling the Infrastructure

Building a mass storage infrastructure is no easy task. Hitachi Data Systems and its Hitachi TrueNorth Channel Partner, Wasko, were prepared for a complicated implementation process from the very beginning. The most important factors in this project were the short time and huge number of systems supporting many financial products offered by the bank. "We required prompt completion during implementation. When preparing to open the bank, we couldn't allow ourselves any time delays. We had, however, full trust in Hitachi Data Systems and their

partner company, Wasko. We knew that they would prepare mass storage infrastructure that would be fully functional and on time," said Henryk Baniowski.

The first stage of work concentrated on running the systems in the main data processing center, while adaptation work was being completed in the second center. Delivery and then startup of storage systems in the first center took five weeks, while work on the gradual implementation of the bank's IT systems took close to five months. During this time, Hitachi Data Systems and its implementation partner performed work on configuring storage systems supporting administrators at the stage of analysing efficiency requirements and advising on the integration of the storage with systems, including Linux, Microsoft® Windows®, AIX and VMware. Internal data replication was applied for selected systems in order to obtain data quickly as well as for the needs of data distribution for test and developer systems.

During the second stage, after the launch of the second data processing center, a reproduction of the second storage system was performed and work on implementing synchronised replication between data centers was deployed using Hitachi TrueCopy. During the whole implementation, administrators took active part in implementing storage configuration. After completion of trainings, they worked on the implementation of new systems and mechanisms for replicating data internally and between storage systems were started.

Apart from the storage systems with management and data resilience software, Hitachi Data Systems and its implementation partner created the whole SAN network infrastructure, including Cisco MDS 9509 multilayer directors.

## Achieving Full Scalability, High Efficiency

Thanks to the implementation of the Hitachi Universal Storage Platform V, Alior Bank built a fully scalable mass storage infrastructure that is efficient and meets disk space requirements for the future. Many applications and business systems can use the mass storage without any limitations of efficiency.

Additionally, the environment guarantees security and high availability of data for these applications and business systems, which has huge significance for maintaining the business continuity of the bank. Thanks to the new infrastructure, the process of planning and purchasing additional disk space has been simplified. And thanks to the built-in mechanism of virtualization and partitioning, the bank is now prepared for quick and easy implementation of these mechanisms. This will be crucial in situations when business needs start to grow rapidly and when using these mechanisms turns out to be the best way to satisfy these needs.

The transparent layering of the currently implemented and used matrix infrastructure and SAN network allow for quick responses to business needs and it is thanks to this excellent tool that the bank's competitiveness has been raised.

In response to the question about what factors favored the choice of Hitachi, Henryk Baniowski listed the following: "The huge technology behind Hitachi systems, as well as the favorable price and the scalability. If our bank introduces a new business service or product to the market, we already have a ready infrastructure to use."

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