

## VOLKSWAGEN BANK POLSKA

### Key information

- Volkswagen Bank Polska ensures business operations continuity in case of disaster.
- Recovery and restart times were fundamentally shortened, even to less than one hour in case of key business processes.
- The concept originally developed in bank was executed by IBM Polska; the company offered comprehensive solution including spare data center.
- IBM Polska was responsible for hardware and software provision, as well as configuration and testing of the entire solution.
- Solution took advantage of industry specific best practices in DR area, highest standards and best technological solutions available in decent situation.



## Safety above all

*IBM solution provides continuous operations of Volkswagen Bank Polska. In case of disaster key business processes will take off in less than one hour.*

Volkswagen Bank Polska was established in the early 1998. The bank is specializing in financing purchases of Volkswagen group cars: Škoda, Volkswagen, SEAT, Audi and Porsche. Starting from April 2001 the bank offers also direct banking services. Volkswagen Bank Direct offers its individual and corporate customers checking and saving accounts, saving accounts, deposit account, debit cards, consumer credits, etc. Volkswagen Bank Polska is a member of international group Volkswagen Financial Services AG.

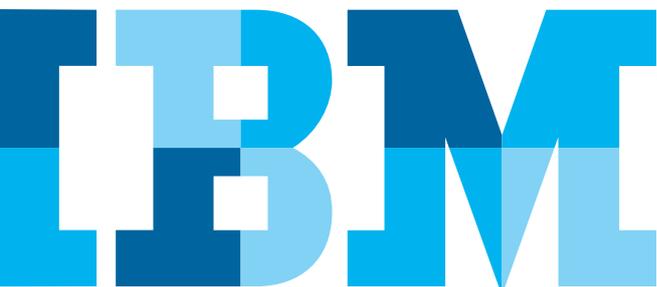
### Business context

Disastrous events and accidents that occur from time to time all over the world lead to reflection: how to prepare for unpredictable? We all hope these events will not happen to us but it is hard to ignore the risk. Volkswagen Bank Polska was looking for flexible solution to ensure possibility to operate in case of natural disaster or serious accident caused by human factor which makes regular use of office and ICT infrastructure location impossible. Being ready for the worst scenario approach illustrates Bank responsibility towards customers, employees and shareholders.

Even simple water supply system failure proves importance of disaster recovery and continuity plans. Keeping hygiene in office building where thousands of people work is a serious challenge. You can observe Warsaw second metro line construction right through the windows of bank headquarters. Although you do not see any threat one should keep in mind what happened in Cologne, where offices collapsed because of tunnel fall that was taking place nearby.

*„That is why we started Business Continuity project. Our main goal was to make our banking services provision independent of our building condition. We were determined to ensure operating and keeping business as usual with the same staff in other localization in spite of accidents” – says Kai Fischer, CIO at Volkswagen Bank Polska.*

Project preparation started from Business Impact Analysis aimed at identification of key business processes and defining how long downtimes are allowable in case of each process. As a result certain processes and their certain recovery times guaranteeing no negative impact on bank operations were determined. Key process contributors among staff members and critical to process execution IT systems were also designated.



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## RTO in Volkswagen Bank Polska

- **1 hour**  
for key business processes.
  - **4 hours**  
for business processes not impacting customer service directly.
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*„Important part of the plan was creation of spare data center in safe, distant location. It was necessary to provide redundancies, including redundant connections to maintain communication with financial institutions. We also plan to create contact center and fully equipped office ready to carry out everyday tasks.”*

— Kai Fischer, CIO at Volkswagen Bank Polska

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These determinations were translated into numbers then: Recovery Time Objective (RTO) and Recovery Point Objective (RPO). Those established parameters allowed to define sources and IT strategy required to create Disaster Recovery Plan.

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*„It was crucial to convince our board that investment addresses critical business needs. It was also necessary to balance capabilities and amount of investment. Business units expected very high level of RTO. They expect to ensure virtually no downtimes at all. Although it was of course possible but would rise cost disproportionately” – said Kai Fischer.*

### Solution

Volkswagen Bank Polska invited IBM to cooperation in the project. The scope of the arranged collaboration encompassed translation of concept into specific technological solutions and provision of necessary hardware and software, ensure optimal configuration and run tests.

*„IBM provided servers, data transmission for LAN and WAN networks and storage infrastructure and placed it in its own secure data center providing hardware hosting for the client. We established configuration of the entire data replication, system security and emergency switch over solution”* explained Krzysztof Zawada, Service Solution Executive, IBM Polska.

*„Fundamental challenge was to coordinate both the entire project and the set up of various technologies. Volkswagen Bank Polska owns technological environment of complex, heterogenic structure consisting of IT solutions from wide range of vendors, including IBM, Cisco, Adva and CheckPoint. Integration and optimization in order to achieve assumed RTO and RPO levels required profound knowledge and experience” – adds Paweł Bondar, Business Development Executive, IBM Polska.*

According to DR plan key business processes with supporting systems must restart operations in one hour since the moment of disaster. This assumption applies especially to spare data center and contact center.

Such a short time for recovery of service in spare centers results from necessity to provide direct banking services to Volkswagen Bank clients. Business model bases on lack of physical branch offices, thus downtime in access to contact center impacts negatively image and brand confidence. Significance of individual clients, dealers and importers service as well as continuous capability to block or limit use of financial instruments, especially cards and tokens is also worth to stress.

*„Emergency switch over between primary and secondary centers accomplishes in short time. Nothing changes from the user point of view” – says Witold Buźniak, ITS Project Manager, IBM Polska.*

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For less important processes and supporting systems recovery time was determined at 4 hours level. This is the case of spare office space awaiting for operations at Volkswagen plant in Poznań. It is fully equipped with necessary infrastructure and communication lines. Thanks to desktop virtualization employees on business trip from Warsaw have access to their pulpit, applications and data and may use it in the same way as they did in primary office.

Making use of technologies familiar to IT specialist in Volkswagen Bank Polska was also project cornerstone. Clear advantage of such approach is minimization of time and money required for post-implementation staff training. *„The use of some technologies, for example VMware virtualization technology, naturally expanded. It was necessary to add VMware vCenter Site Recovery Manager software to manage different virtual environment locations”* – remarks Paweł Poznański Leader of IT Infrastructure Team from Volkswagen Bank Polska.

Provision of redundant telecommunication connection turned out to be one of important challenges. Telco companies encounter serious problems to arrange two independent optical fiber lines between primary and secondary center in accordance to the schedule. This bottleneck might cause delays in the later stages of project.

*„We had to work with living organism. We had no testing environment to check for example how to set in motion data replication. Our assessment of time required to accomplish project might include some margin of error. In one case we had to stop data duplication and return to the old system version, because we exceed time for change”* – says Kai Fischer.

Project took 14 months including agreement negotiation and some early preparation works. DR implementation took 9 months. *„We took advantage of industry specific best practices in DR area, keeping highest standards and best technological solutions available in decent situation”* – says Witold Buźniak.

DR tests were the final moment of the implementation. After simulation of main data center and one of office areas in headquarters inaccessibility, spare data center was set in motion, telecommunication connections were checked and some part of staff was moved to spare office localization. *„Tests proved that our strategy and implemented solution really works”* – sums up Kai Fischer.

## Benefits

Implemented DR strategy and solution guarantee that Volkswagen Bank Polska will keep its operational capability even in case of main office building and primary infrastructure inaccessibility.

*„We can restart our key business processes in just one hour at the latest. Less important processes will be restarted in 4 hours at the latest. It is worth to notice, that there are many functions that have minimal impact on customers service. These processes may stay inactive even for a few days without any damage to the business”* – says Kai Fischer.



*„There is high probability that we lose less than 15 minutes of operational records also for systems not protected by transaction oriented protection methods. This illustrates best the change we achieved because before the project we made for some systems copies every 24 hours. In worst case in the past we might lose data records from the entire day of operations.”*

— Paweł Poznański, Leader of IT Infrastructure Team from Volkswagen Bank Polska

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Synchronic data replication assures that the bank will recover entire data saved in one hour to the time of accident. „There is high probability that we lose less than 15 minutes of operational records also for systems not protected by transaction oriented protection methods. This illustrates best the change we achieved because before the project we made for some systems copies every 24 hours. In worst case in the past we might lose data records from the entire day of operations” – says Paweł Poznański.

Duplication of all telco connections with Volkswagen Bank Polska partners means elimination of the single point of failure. There is no more risk that connection failure will stop services and operations such as bank money transfers or blocking of lost cards.

The main goal of the project was to assure that Volkswagen Bank Polska is ready to reestablish operations in case of serious disaster. However, the project brings some additional benefits. One of them is increasing the flexibility in managing single system failures. Spare data center assures more options to react on those situations. Project fulfilled all set of regulations and obligations including key obligations defined by Financial Supervisory Authority.



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