

SGB-Bank eliminates downtime for partner banks and customers



Software and services

Red Hat® OpenShift®
Red Hat Consulting

Existing Red Hat solutions

Red Hat Ansible®
Automation Platform
Red Hat Enterprise Linux®
Red Hat JBoss® Enterprise
Application Platform

SGB Group was established in 1990, bringing together nearly 200 cooperative banks across Poland, with SGB-Bank providing IT services for the group's banks. SGB-Bank selected Red Hat OpenShift with assistance from Red Hat Consulting to implement microservices and containers that would help it better serve customers. With reliable enterprise open source support, SGB-Bank eliminated downtime, improved agility, accelerated time to market, cut costs, and can dependably scale processing.



Software industry

1,500 employees
18 offices

Benefits

- ▶ Eliminated downtime to meet changing customer expectations
- ▶ Accelerated time to market for new functionality and patches
- ▶ Enhanced agility to support API approach
- ▶ Achieved scalability to accommodate growing data volume

“We selected Red Hat OpenShift because of the competent support of a recognized vendor in maintaining and developing an open hybrid cloud platform.”

Piotr Mazur
Chief Information Officer, SGB-Bank

“Red Hat Consulting ensured the solution architecture would meet our high availability and low cost of ownership requirements.”

Piotr Mazur

Chief Information Officer, SGB-Bank

Creating a modern cooperative banking group

Established in 1990, Poland’s Spółdzielcza Grupa Bankowa (SGB Group) brings together nearly 200 cooperative banks across Poland. Together, they offer a network of more than 1,500 bank branches and online channels with more than 160 years of experience managing the capital of many generations of Poles.

Poland’s banking sector is increasingly relying on digital processes to meet users’ demand for enhanced mobility and multichannel customer service. SGB Group aims to be a leading technology service provider in the cooperative banking arena by providing innovative services responsive to the needs of its customers.

“SGB Group is creating a strong, modern cooperative banking group while remaining close to local communities,” said Piotr Mazur, Chief Information Officer, SGB-Bank.

SGB-Bank provides IT services for the group’s banks in a shared services business model. Its mission is to provide comprehensive technology services and support for the cooperative banks of SGB Group so group banks can provide the best possible service to their end customers, ultimately contributing to local and regional economic growth.

SGB-Bank aims to become a leader in mobile banking in the region by 2024 and for its cooperative banks to be the first-choice bank for farmers, businesses, and individuals in rural areas and small-to medium-sized cities. To achieve this, it needed to update its systems and improve its monolithic architecture, which was difficult to maintain, causing IT failures that had a broad impact on business processes.

“We encountered frequent failures,” said Mazur. “Analyzing their location and identifying the root cause was becoming increasingly difficult.”

In addition to system instability, the legacy systems and monolithic architecture also hindered scalability, agility, and time to market for delivering new functionality to the banks. SGB-Bank decided to adopt a microservices approach and use containerization to build a coordinated IT ecosystem.

Implementing a reliable foundation using Red Hat technology

SGB-Bank analyzed the market and several possible solutions. The bank chose Red Hat OpenShift because it is reliable even in demanding working conditions, creates a stable foundation for ongoing maintenance, and would maximize value from the bank’s existing Red Hat Enterprise Linux and Red Hat Ansible Automation Platform systems.

“We selected Red Hat OpenShift, an enterprise [Kubernetes](#) container platform with comprehensive automation capabilities, because of the competent support of a recognized vendor in maintaining and developing an open hybrid cloud platform,” said Mazur.

SGB-Bank also used Red Hat Consulting to develop a plan for every stage of the project from implementation to operations and maintenance. “Red Hat Consulting ensured the solution architecture would meet our high availability and low cost of ownership requirements,” said Mazur. “They helped us enormously in acquiring new knowledge about the platform and saved us a significant amount of time.”

SGB-Bank migrated its online banking functionality from a client-server architecture, but it took a cloud-native approach to building mobile banking functionality as microservices from the beginning of implementation. Its Red Hat OpenShift test and production platforms and microservices, supporting both online and mobile banking services, were operational within a year.

Now, the container platform supports workloads relating to both customer-facing services and internal business processes, such as mobile applications and electronic banking. With Red Hat's support for hybrid cloud, the organization is integrating various systems and opening a path to using cloud platforms more systematically.

Providing a robust platform for faster integration

Eliminated downtime to meet changing customer expectations

With its solution architecture and robust platform for application monitoring and automatic restart capabilities, SGB-Bank can now meet customer expectations for 24x7 availability. "A well-designed environment of microservices and their containerization is almost error-resistant by definition," said Mazur. If an error or version change occurs, the system restart only takes a few seconds, which minimizes the duration of service unavailability for the client.

Scaling and centralized authorization management are vital for the bank, and the new architecture built on Red Hat technologies provides high fault tolerance. If the hardware infrastructure fails, SGB-Bank can retain functionality and recover from the problem automatically before the failure affects bank customers.

Accelerated time to market for new functionality and patches

Adopting Red Hat OpenShift helped SGB-Bank improve operations and application maintenance by accelerating patch deployment and functionality modifications. SGB-Bank can deploy the same image in multiple containers across multiple hosts, and use image versioning—creating images once across a range of environments—to update and run images quickly. SGB-Bank can also return to the previous version of the software at any time. Software providers download their images to SGB-Bank's local GitHub repository, and these images are then uploaded to the Red Hat OpenShift repository.

"Red Hat OpenShift's rolling update mechanism allows us to update deployments without interrupting operations," said Mazur. "We can introduce new changes in application functionality quickly."

SGB Group is able to stay ahead of its competitors in delivering digital capabilities, making the group more attractive to potential customers.

Enhanced agility to support API approach

Adopting a microservices approach based on Red Hat OpenShift has increased SGB-Bank's agility by helping the bank dynamically and selectively add new business functionality. The container platform enhances agility with an API approach that simplifies the integration of various systems and makes it easier to connect new banks.

"An API approach based on microservices allows us to serve the whole group while at the same time meeting the needs of individual banks," said Mazur. "Built on Red Hat OpenShift, our flagship BS (Bank Spółdzielczy) API project simplifies integration between banks' diverse systems, services we offer, and systems we maintain centrally."

Achieved scalability to accommodate growing data volume

With data volumes growing rapidly, SGB-Bank can scale its applications to meet the growing, shifting demand. If a metric is ever exceeded—such as CPU saturation—Red Hat OpenShift automatically appoints additional resources and then reduces them when they are no longer required.

Staying ahead of the competition

SGB-Bank is now focused on migrating its entire bare-metal platform and intermediate virtualization layers to Red Hat OpenShift.

The bank plans to use Red Hat Advanced Cluster Management for Kubernetes, part of [Red Hat OpenShift Platform Plus](#), to manage multiple clusters from a single console. Red Hat Advanced Cluster Security for Kubernetes will also help the bank by integrating with continuous integration and continuous delivery (CI/CD) pipelines and image registries to provide constant image scanning.

SGB-Bank and the entire group consider microservices and containerization an important part of their evolution toward cloud-based solutions.

“The cloud will give us additional possibilities for ensuring availability, improving costs, and becoming independent from infrastructure limitations,” said Mazur. “Red Hat OpenShift will continue to play an important part in the orchestration and management of our entire environment.”

About SGB-Bank

SGB-Bank S.A. (formerly Gospodarczy Bank Wielkopolski S.A. – Wielkopolska Commercial Bank) was established in 1990 on the initiative of cooperative banks that operated in Wielkopolska and the southwestern part of Poland. Its strategic goal is the formation of a modern banking group that uses the newest technologies, is competitive among other banks, and operates on the assumption that the cooperative bank is the fundamental link.



About Red Hat Innovators in the Open

Innovation is the core of open source. Red Hat customers use open source technologies to change not only their own organizations, but also entire industries and markets. Red Hat Innovators in the Open proudly showcases how our customers use enterprise open source solutions to solve their toughest business challenges. Want to share your story? [Learn more.](#)



About Red Hat

Red Hat is the world’s leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. [A trusted adviser to the Fortune 500](#), Red Hat provides [award-winning](#) support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

 facebook.com/redhatinc
 @RedHat
 linkedin.com/company/red-hat

North America
 1 888 REDHAT1
 www.redhat.com

**Europe, Middle East,
and Africa**
 00800 7334 2835
 europe@redhat.com

Asia Pacific
 +65 6490 4200
 apac@redhat.com

Latin America
 +54 11 4329 7300
 info-latam@redhat.com