

Case Study

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Migration to Microservices Helps Digital
Enterprise Transformation



The Client

Our client is a strong and well-known international financial group. They offer their customers a full range of banking and other financial services through the following entities: real estate savings bank, leasing, voluntary pension fund management, pension insurance, investing, consulting, factoring, and bonuses. Its subsidiaries in Central and Eastern Europe cover de facto the entire region.

More than 16 million customers are serviced through 2.200 business outlets in corporate and private customer segments as well as in investment banking.



Challenge



The client had a vision of transforming the bank into a digital enterprise by improving the effectiveness and performance of products, services, and processes. The goal was to customize the bank according to the needs of new generations of users and new business ecosystems. Apart from increasing flexibility, it is important to enable the integration of the bank with the new EU directives in short time periods.

To reach this speed and agility level is not possible with legacy IT systems and monolith architectures. Introducing modern technologies and tools, new flexible models, design principles and agile methodologies to development is key in supporting the aforementioned goals.

Implementing modern technologies like microservices requires specific know-how and engineering capacity. Our client needed support from a partner that already has experience in microservice architectures and that could help with design and implementation.

Service



Serengeti provided microservice architecture design services and implementation services.

We developed a microservice platform for the needs of the client's mobile applications and for the needs of the incorporation of various EU directives into the banking system integration.



Solution

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In order to accomplish these goals, Serengeti assigned its experts to existing client teams according to the proven Team Extension Model. The Team Extension Engagement Model is a step-by-step process that ensures fast and efficient onboarding and reaching the external team's optimum productivity level very fast. Together, Serengeti's team and the internal team worked on the overall platform architecture design and implementation.

Microservice architecture has proven to be the best solution in this case because it enables continuous delivery and deployment of large-scale complex applications. It also gives the organization the opportunity to easily upgrade the technologies it uses. Scaling applications is much easier than scaling large monolithic applications because microservices can be scaled individually.

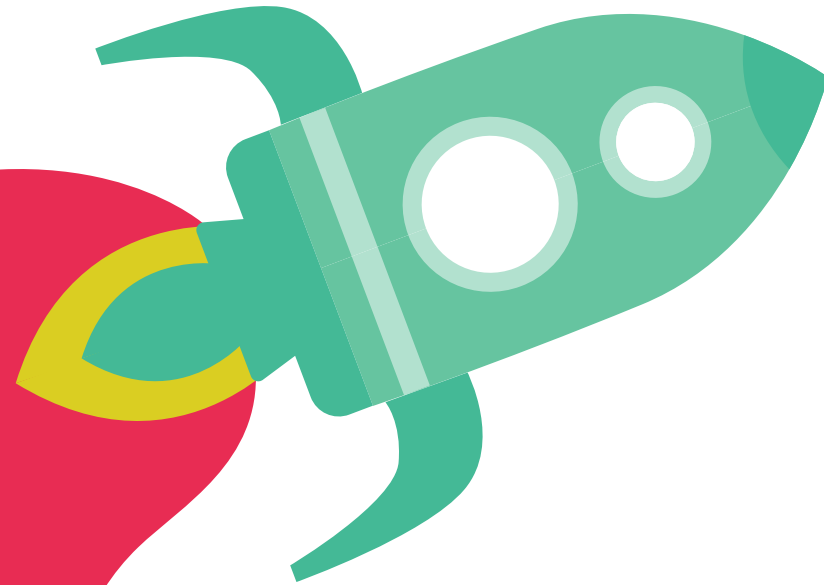
Another advantage of this approach is that different teams can independently develop and deploy all microservices without much coordination with other teams. By using modern cloud technologies, we have solved business problems like fast delivery and reuse of common parts. The OpenShift ecosystem delivers a variety of technologies, from monitoring container metrics and application performance inside a container, to supporting various Java and other technologies and software environments. Some of the services offered by the OpenShift platform to the applications running on that platform are high availability/load balancing, single sign-on, a unique system for collecting, accessing and managing application logs, a CI/CD system for creating and installing applications, and service discovery. All these services were used in the overall system design.



Result

By making sound design choices and implementing the best practices of microservice architecture, many long-term benefits were achieved, such as improved communication across teams, improved collaboration and communication efficiency, independent implementation of new features, independent scaling, failure and resource isolation, easier maintenance, and potential heterogeneity since developers were free to pick the language and stack best suited for their service.

Serengeti provided the client with a team of experts that had wide experience in the banking industry and microservice architectures. This allowed the client to get access to right skill set and know-how fast. It also enabled the Serengeti team to reach the optimum team productivity very fast with little engagement needed from the client's key technical people.



Accelerating business transformation through innovative technology

Serengeti d.o.o. is a software development nearshoring and consulting company. For the past 20 years, we have been partnering with our clients to reinvent their business models using innovative information technology. We work according to the principles of DevOps, implementing disruptive trends in our specializations. Our experience and business acumen comes from successfully working on over 300 projects.

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