

Leading Israeli Bank Migrates Their Mainframe to Microservices

Creates five microservices in just two weeks with one developer



MICROSERVICES | IBM MAINFRAME | Z/OS CONNECTOR | AGILE | OPENSIFT | DEVOPS

“OpenLegacy helped us become truly responsive by letting us build APIs and microservices in a single sprint—five microservices in two weeks, instead of one in many months.”

IT Executive,
Israel's Largest Bank

This bank's extensive network of branches engages in a wide range of commercial banking and financial services. It operates three major divisions in Israel: Business, Retail, and Financial Markets & International Banking. It offers global services and has fostered strong, cooperative relationships with other financial institutions around the world.

The Challenge

Building a Modern Architecture to More Quickly Respond to Business Requirements

It was challenging for the bank to migrate from their monolithic system to modern microservices. The bank needed to bypass complex and heavily customized ESB layers in order to efficiently access their IBM stack. The many years of ESB customizations made upgrades impossible and, despite testing, even IBM's z/OS Connect couldn't solve the problem.

They wanted to break down the monolith, create an environment of microservices and APIs deployable on the OpenShift Container Platform (OCP) and use the WSO2 API Manager. They needed to produce these microservices quickly and consistently to support their web, mobile, and cloud requirements. Furthermore, the company decided to build using an API Factory model where APIs get released to production quickly and consistently, like a “traditional” factory assembly line.

About OpenLegacy

OpenLegacy accelerates delivery of innovative digital services from legacy systems in days or weeks versus months. Our microservices-based API integration and management software reduces manual effort by automating API creation, simplifies the process by avoiding layers of complexity, and improves staff efficiency and API performance. Our software directly accesses and extends business logic to web, mobile or cloud innovations in the form of Java objects, REST APIs or SOAP. Most importantly, this process is not only fast, easy and secure, but also does not require special staff skills or changes to existing systems or architecture. Together, business and IT teams can quickly, easily and securely meet consumer, partner or employee demands for digital services without altering or replacing core systems. Learn why leading companies choose OpenLegacy at www.openlegacy.com.

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The Solution

The bank chose OpenLegacy whose pre-built connectors, direct connections to the legacy systems, and automated generation of microservice-based APIs make it easy to expose the mainframe.

The Microservices-to-Containers Approach

OpenLegacy automated the process of generating microservices by using their IBM CICS adapter to directly connect microservices to the legacy systems. Then, the platform did the rest: directly placed the microservices into containers, deployed into OpenShift, managed them with the WSO2 API Manager, and connected to the bank's DevOps process.

With customizations needed for many large mainframe applications, the bank was able to save time by applying their corporate standards to templates in the OpenLegacy platform. This enabled quick and easy implementation of the API Factory model to handle all integration needs. If the developers make a simple modification to the template, re-generation is all it takes to include it across the entire system.

The teams needed to reduce the number of manhours it took to not only create the APIs but also to coordinate the workloads and handoffs among the teams working on the project. Instead of having many handoffs among groups, they wanted to have a single Java developer build everything. They demanded a system with minimal maintenance, where everything looks and works the same.

The Result

Five microservices created every two weeks. With the new solution, now one software engineer can quickly use OpenLegacy's API Factory to create five microservices every two weeks, enabling the bank to build apps more easily, focus on business functionality, and improve productivity and speed.

Overcoming the middleware. Automatically creating microservice-based APIs bypasses the complex mesh of interconnected subsystems. Using microservices lets developers focus on small fragments of code and singular functionality which accelerates time to market and aligns the bank with agile methodologies.

Increased responsiveness. Using OpenLegacy's templates to create APIs faster ensures that the mainframe content is working in a true DevOps process. Building APIs and microservices quickly ensures the bank accelerates innovation, creating better products in response to customer needs.

Lower personnel and maintenance costs. With the automated solution, fewer hands need to touch the code, which significantly reduces the likelihood of coding errors. Furthermore, the simpler architecture connecting the legacy systems to web, mobile, and cloud bypasses the ESBs, which eliminates major testing and QA activities.

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