OpenLegacy
Digital to the Core

Case Study

Citibanamex improves market position by expediting their mobile first strategy

OpenLegacy unlocks access to the mainframe, helping Citibanamex deliver a world-class mobile app and seamless customer experience

citibanamex

4 hours
instead of months to create an API from legacy systems

>300
APIs deployed thus far

Founded in 1884, Citibanamex is part of Citibank corporation. With 40,000 employees and tens of millions of customers, the bank processes over 40% of total transactions in Mexico. Witnessing the digital transformation happening around it, the bank committed to a digital transformation of its own.

Financial ▪ **Tandem Mainframes** ▪ **Digital Banking** ▪ **Microservices**

The Challenge

Citibanamex's digital transformation initiative was spurred by the need to keep up with the dynamic, rapidly evolving Mexican consumer banking market. The bank's primary goal was to deliver a seamless, personalized user experience across both digital and traditional channels, including the branch network.

As a proxy for the maturity of its digital offerings, the bank selected an unusual KPI: the rating of its mobile application in the app store. At the time the bank kicked off its digital transformation project, the app's rating was a 2.0 out of 5. Citibanamex knew that it would require innovative new digital offerings to improve the digital user experience.

And the bank recognized that to do this, it needed a comprehensive strategy for leveraging and extending its core technology. At the heart of their technology stack is a proprietary mainframe system, which runs the bank's core business applications such as payments and account management.

Citibanamex's previous experience led the bank to believe that they could successfully unlock digital transformation by relying on this tried- and-tested technology backbone – while layering on new services and applications in an agile, flexible, standard fashion. In fact, as early as a decade ago, Citibanamex had realized the need to open up their various IT platforms and applications so they could share data and integrate business processes. To that end, it even instituted a policy of opening up business flows as APIs.

But over time these modernization projects led to an ever-increasing spiral of complexity with a bevy of in-house tools, mainframe gateways, ESBs, middleware, dispatchers, routers, and messaging queues. Each system had a different way of handling the backend legacy platform, which ironically made it harder and more cumbersome to integrate with legacy applications after each such "integration" project had finished.

Following years of unsuccessful, costly integration attempts, Citibanamex was left with the same needs and challenges – only exacerbated. The *Customer Digital Experience* and the *End-User Journey* became the focus for their business transformation. Time was not on their side. They needed a partner that could help them rapidly develop and deploy innovative customer offerings on top of their core systems.

The Solution

Citibanamex approached OpenLegacy to expose all of their core banking applications, including Account Opening, Checking and Debit Accounts, Consumer Credit (Personal, Autos, Mortgage), Payments and Investments. They consist of hundreds of business processes that handle all aspects of most consumer applications, including utility and credit card bills, tax payments, consumer products payments (e.g. car, mortgage) and more.

OpenLegacy's connector for the mainframe environment, combined with its COBOL parser and automated API generator, resulted in a working prototype exposing six real-world mainframe business flows (e.g. checking balance, account validation) as APIs. The prototype only took two weeks to complete. It completely bypassed their Tibco middleware and messaging technologies, and instead connected directly with the mainframe environment: From analyzing back-end code and automatically generating APIs from it, to invoking transactions and processing input and output. The new APIs generated by OpenLegacy were tested and deployed using the bank's existing environment, to ensure that they function properly in the current infrastructure as well as follow the bank's internal integration standards.

The development was done using modern, scalable, open architecture (such as REST API) and development methodologies (Agile, Scrum) – complying with the bank's requirements.

> *"After years of mainframe modernization projects that didn't realize their full potential, OpenLegacy's API integration platform is the light at the end of the tunnel. Within an hour, we went from nothing to a working API connected to our payments app, powered by OpenLegacy—80% of the work comes right out of the box."*
>
> **Citibanamex**

The Result

Citibanamex's OpenLegacy integration enabled it to begin capturing the promise of an API Factory: the ability to automatically generate, test, and deploy standard APIs driven by business needs. Within its first quarter, it deployed 40 APIs from its core technology, opening up critical transactions and information for digital development. To date they have deployed over 300 services as part of this modernization process.

The results became rapidly apparent as the Citibanamex team rolled out improvement after improvement to the mobile app, including an improved user interface and new features around digital payments. The mobile app's rating soared from 2.0 to over 4.5 – driven by the agility of the bank's digital development.

Beyond achieving its core KPI, the bank saw a number of transformational results with their OpenLegacy implementation: an acceleration in speed-to-market, improved customer experience, lower cost, and greater agility and innovation.

Incredibly fast time to market

According to the VP of integration at Citibanamex "All of my people access OpenLegacy. We have 500+ APIs in production at the bank and 95% connect to a component that touches OpenLegacy. How resilient are the APIs? Put it this way—if we mess up, it shows up on the evening news immediately. As an example of how visible the stuff is we just completed a special login from our core mobile app and around 80 customers per second are logging in using OpenLegacy."

A reinvented customer experience across channels

Previously, Citibanamex's tellers used either the mainframe's "Green Screens" directly, or internal apps that were very clunky and unstable as a result of previous integration projects. Exposing the application's workflows as APIs paved the way to building new, intuitive user interfaces for these workflows, serving both the teller and the consumer with an efficient in-branch experience.

Significantly lower cost of development with a minimal risk solution

For application developers, OpenLegacy is a game-changer. The simple, elegant OpenLegacy platform allows any Java developer within the organization to call mainframe business workflows directly in order to add new functionality or expose existing one to external applications. There's no need to go through layer upon layer of connectors and Tibco middleware to rewrite COBOL code, or create a new legacy environment. Deployment is also a breeze with OpenLegacy, freeing up expensive DevOps resources: OpenLegacy automatically and instantaneously deploys new versions—compared to the current environment that requires over a week to deploy.

Reduced complexity and TCO

At run-time, the complexity and TCO are reduced because the OpenLegacy-generated microservices run in the cloud and communicate directly to the mainframes. This means the application doesn't have to communicate through expensive middleware.

Unleashing digital transformation

Now that the API building blocks are in place, the bank's business units can dream up—and realize—unlimited new consumer services, offerings, and products. One example is a new student bundle that includes products and services geared towards the student market: car and tuition loans, discounted fees on checking and savings accounts, and a credit card with special benefits. Previously, developing such a product was prohibitively labor intensive and expensive.

About OpenLegacy

OpenLegacy's Digital-Driven Integration enables organizations with legacy systems to release new digital services faster and easier than ever before. Connecting directly to even the most complex core systems, OpenLegacy automatically generates the digital-ready components needed to integrate legacy assets into exciting new innovations. With OpenLegacy, industry-leading companies release new apps, features, and updates while spending a fraction of the time and resources, so they quickly and easily become digital to the core.