



IBM: Open Banking mobile app development. Multi-platform app enabling secure monetary transfers

Open Banking mobile app development

Partner: IBM



Objective: Develop a secure financial banking mobile and web app to support automated fund transfers between separate banking entities when predetermined conditions are met.

Solution: A bank-agnostic, multi-platform app which enables secure monetary transfers across the open-banking financial ecosystem in line with regulatory compliance.

About IBM and Open Banking

The IBM portfolio includes a broad range of technologies that underpin the backbone of the financial system. These technologies are at the base of the Second Payment Services Directive (PSD2) APIs exposed by many banks across Europe. PSD2 is aimed at lowering financial transaction costs and promoting innovation. It forces banks to 'open up' their systems, enabling third parties (TPP) to retrieve account information and initiate payments on behalf of the end customer. Even though the PSD2 regulation applies only to Europe, open banking technologies are being embraced across the globe and are widely expected to transform the way in which we pay for goods and manage our finances. Many IBM customers are ready to move beyond compliance and exploit the new ecosystem that's promoted by the regulators.

As part of IBM's commitment to enable innovation, which is built on the foundation of secure and scalable platforms, IBM is continually engaging with startups, technologists and innovators to explore the 'art of the possible' for open banking

The Challenge

For the majority of consumers, online banking can become a critical tool to manage accounts conveniently and efficiently. Yet, consumers need reassurance that their data is secure, especially when sharing them with third parties through APIs.

IBM recognises that to retain existing customers and attract new ones, financial organisations must continue to evolve their online services. Key to this is putting customer experience and trust centre stage by offering practical, real-world solutions.

For our use case, we looked at a mother who wanted to support her daughter while travelling and studying abroad, so that her daughter could make the most of the experience, without having to worry about being overdrawn. When her daughter's account falls below a certain amount, she would like to know so she can top up her daughter's bank account. Ensuring that her daughter has sufficient funds gives her peace of mind.

Consent management is one of the core aspects of the open banking ecosystem. The complexity increases when consent is required to transfer an amount between two bank accounts which is triggered by the behaviour of one of the accounts. The challenge was to develop an app that implemented this complex scenario swiftly, securely with an engaging customer experience.

“With NearForm, we found a partner who could help us explore ‘the art of the possible’. They understood straight away what we were trying to do”

“It was great working with NearForm using their Polaris mobile accelerator. We had an ambitious target, a heterogeneous team that never met in person, and a delivery timeframe of only a few weeks. NearForm's agile delivery practices, user experience design and technical skills were vital to make it happen.”

Carlo Marcoli – IBM – API Economy Solutions Leader – Europe

The Solution

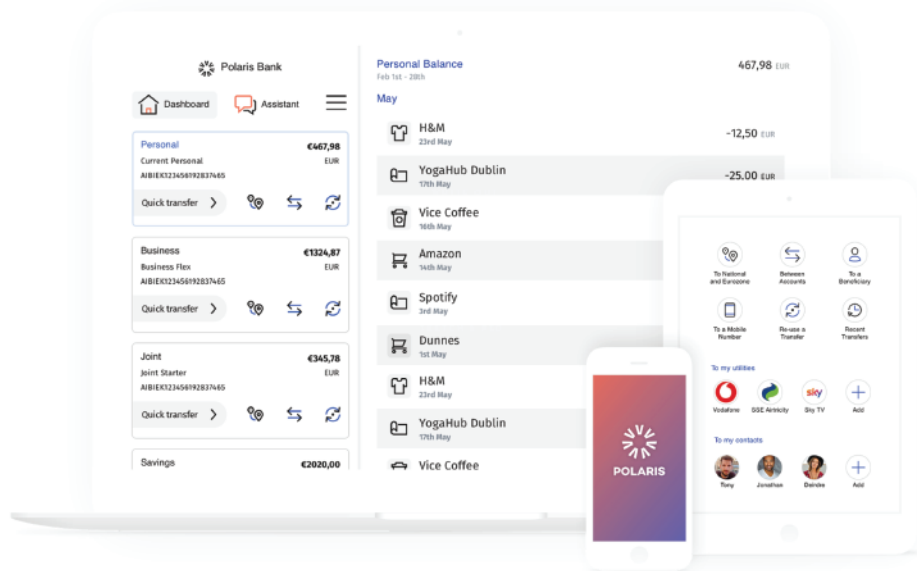
Working with a small joint IBM and NearForm team, we identified and articulated the main customer story. By humanising the technical requirements, we ensured that the digital solution enhanced the overall customer experience.

This led us to develop a multi-platform app that uses one codebase for web, Android and iOS. The approach ensures that we create a reference architecture for all devices. With this architecture, we have the basis from which to focus on the specific platform attributes. For example, the progressive web app is responsive and optimised for whatever device the customer uses. For mobile devices, we enhanced the codebase for Android and iOS to make sure it took advantage of the device-specific capabilities. The outcome is a reference mobile app that delivers a consistent brand experience for the customer.

The open API app provides a seamless flow from initiating consent, through authentication and authorisation across both accounts while encrypting the data in transport and at rest. Within the app, the screens show all the customer's financial information and the call to action buttons are complemented with default and customisable input fields. For example, selecting pre-defined transfer amounts or letting the customer add their own. Push notifications prompt customer engagement along the process. For each key step, the screens provide a clear overview of the customer data and explicitly describes, for opt-in, what information is being requested or approved. In line with OAuth 2.0 authorisation protocols, the app connects to the chosen bank for their specific authentication and authorisation processes. Transition screens inform the customer that they are moving into their own online banking environment, maintaining trust levels. Once authorisation is completed, the customer is automatically redirected back to the app. Following successful authorisation, when the behaviour of the target account meets the predetermined conditions, an automatic request for action is triggered to the customer.

The Results

Within just three weeks, we developed a fully operational, leading-edge, open banking app which enables a complex real-world customer journey. We underpinned the modern light design with a reference architecture which accelerates a consistent and optimised secure multi-platform solution.



“With the increased focus on digital transformation and open banking regulations, banks are changing, and fast! We are enjoying working with IBM to help banks and other financial institutions design, architect, develop and deliver holistic, omnichannel, integrated customer and employee experiences.”

“Our Polaris mobile development accelerator really helps our customers; it's our codified learnings from delivering many real-world applications - hard lessons learned!”

Damian Beresford – NearForm Technical Director

Get in touch

If you are looking to hear more about how NearForm can deliver solutions and results for your organisation, get in touch today and we can schedule a call.

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