xpandit   **Xamarin**

Crédito Agrícola switches from platform specific development to Xamarin

HIGHLIGHTS

Secure, cross-platform native banking app built in three months with 75% shared code.

Development further accelerated by using Azure Mobile Services for authentication and push notification.

Xamarin Test Cloud and Xamarin Insights deliver high quality apps with fewer user-reported issues.

About **Crédito Agrícola**

Crédito Agrícola is one of the largest banks in Portugal, serving more than 1.2 million customers across 700 locations. The bank has prospered over the past 100 years through strong customer service—and keeping an eye on the future.

As more of its customers embraced smartphones and other mobile devices, Crédito Agrícola responded by creating consumer banking apps for three mobile operating systems in the platform-specific languages. The costs of maintaining three separate teams and code bases, however, drove the bank to evaluate cross-platform mobile development solutions for their next app, focused on their enterprise banking customers.

A top concern in planning for the enterprise app was to find a development platform that delivered a fully native experience for iOS, Android, and Windows platforms, while also allowing developers to use a single

code base to accelerate app development and simplify ongoing support.

" *We analyzed tools from the cross-platform development market, looking at factors including code reuse and compatibility of the final code, and ensuring the end-user experience was equal to that from native development—without compromising performance,* " says Jorge Correia, Applications Development Director at Crédito Agrícola. " *None of the solutions we looked at met our needs, until we found Xamarin.* "

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Crédito Agrícola

Secure banking app in three months

Having worked with Xamarin on previous projects, Sérgio Viana, Associate Partner & Microsoft Solutions Lead at Xpand IT, was certain that Xamarin was the right solution. The decision, and a successful result, was so important to Crédito Agrícola that Xpand IT began a Proof of Concept (POC) to validate Xamarin would meet Crédito Agrícola's needs. They were especially concerned with ensuring that the final solution they chose would provide the native user experience they knew was critical for adoption, as well as the necessary security requirements, including authentication and data encryption.

" The objective for the bank and for us was to understand if Xamarin could really live up to expectations," Viana says.*" We gave ourselves just a week and a half to create an application across all three of Crédito Agrícola's target platforms—iOS, Android, and Windows Phone. We had two full time developers–and an additional three working part time–and we completed*

our cross-platform app easily, even with the very tight timeline. Since we created a Windows Universal App as well, we were also able to deliver the PoC for Windows 8."

Soon after the PoC was completed, the bank engaged Xpand IT to begin production work on the app, using cloud-based notification mechanisms through Microsoft Azure Cloud Services. It took just three months to build the initial release of the app for all three platforms, with development time greatly accelerated by 75% code reuse across device platforms.

For enterprise banking customers, the app supports payment authorizations and expense approvals, covering over 34 expense categories. When an invoice needs to be approved for payment, the approver receives a real-time push notification and can open the app, review, and take immediate action from anywhere.

" Native cross-platform development is something that the market has been asking for, but no solution could provide it before Xamarin existed... We gain tremendous development and maintenance efficiencies with Xamarin, while the performance is indistinguishable from what we would get using the platform-specific languages. "

Sérgio Viana, Associate Partner & Microsoft Solutions Lead at Xpand IT

The fast and effective Xamarin development lifecycle

Crédito Agrícola has found a number of benefits from using Xamarin, including the efficiencies of true cross-platform development, faster development through code sharing, and enhanced quality through **Xamarin Test Cloud** and **Xamarin Insights**.

> " The user experience is very important to us. One of our requirements was that the app for each platform offered the usability that the users expect. There can be no compromises and, with Xamarin, that's what we have achieved. "

Jorge Correia, Applications Development Director at Crédito Agrícola

Native apps from 75% shared code

Xamarin has given Crédito Agrícola the native user experience they required and a significantly faster time-to-market because they are able to share 75% of their source code across device platforms.

" *Native cross-platform development is something that the market has been asking for, but no solution could provide it before Xamarin existed,* " Viana says.

" *Prior to Xamarin, developers had to choose between the expense of developing and maintaining separate code bases for each mobile operating system, or accept compromises in performance and the user experience inherent in other cross-platform solutions.*

We gain tremendous development and maintenance efficiencies with Xamarin, while the performance is indistinguishable from what we would get using the platform-specific languages. "

Crédito Agrícola's Correia agrees about the seamless user experience across platforms.

" *The user experience is very important to us,* " Correia says. " *One of our requirements was that the app for each platform offered the usability that the users expect. There can be no compromises and, with Xamarin, that's what we have achieved.* "

Better apps with Xamarin Test Cloud and Xamarin Insights

Credito Agrícola's enterprise banking customers are important to the bank's success, so Xpand IT knew the app had to work well on a wide variety of devices. Manual testing was used for previous apps, taking anywhere from five to ten days to get results on just a few device types. Many bug reports were generated by user complaints since they weren't caught during testing prior to a release.

With **Xamarin Test Cloud**, Xpand IT was able to expand their device reach to test on over 20 devices and get results within minutes instead of days or weeks, accelerating the release cycle, and more importantly, finding critical bugs before the app went live.

Higher quality was further achieved by using **Xamarin Insights**, an intelligent analytics and crash reporting system that enables the team to detect potential problems before they create problems for users.

"Everyone was very impressed with how quick and easy it was to deploy Xamarin Insights," Viana says. *"Crédito Agrícola was happy to see the depth of information they could tap into just a few days after deploying Xamarin Insights."*

Xamarin Insights helps the team be proactive by spotting potential problems early to enhance the user experience.

" Xamarin Insights is especially important because when users encounter problems with mobile apps, rather than reporting them, they may simply stop using the app. With Xamarin Insights we can become aware of problems even if the users don't complain. "

Sérgio Viana, Associate Partner & Microsoft Solutions Lead at Xpand IT

About Xamarin

Xamarin is the new standard for enterprise mobile development. No other platform enables businesses to reach 2.6 billion iOS, Android, Mac, and Windows devices with 100 percent fully native apps from a single, shared code base. Xamarin is used by over 900,000 developers from more than 100 Fortune 500 companies to accelerate the creation of mission-critical consumer and enterprise apps. Xamarin's global customer base in 120 countries includes Dow Jones, Bosch, McKesson, Halliburton, Blue Cross Blue Shield, Cognizant, GitHub, Rdio, and WebMD. Xamarin is a Visionary in Gartner's 2014 Magic Quadrant.

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