Leading US Bank's Mobile Communication App Secured with Zero Coding

Enables user-first mobile strategy worldwide, while complying with zero-risk security requirements for enterprise mobile apps

Challenge

Workplace Services procures, provisions, manages mobile devices for the bank, along with other technology-enabled solutions that improve employees' experience. One of these solutions is Mattermost, a high-trust messaging solution for compliance-sensitive organizations, which they rolled out in mid-2019, for access via laptops and desktops. The bank is experiencing viral user adoption of Mattermost across its target users—the solution now processes over 200,000 messages per day and supports thousands of active groups.

In late 2019, to fully realize Mattermost's potential, the bank devised plans to offer a mobile solution. However, Mattermost's native mobile apps do not fully comply with security requirements of the bank's Global Information Security (GIS) organization. As a result, GIS required use of its standard mobile app management (MAM) solution with these apps, in order to ensure that all mandatory policies and controls are enforced when the app is in use.

In order to run the Mattermost apps within its MAM container, Workplace Services needed to write code to manually integrate BlackBerry Dynamics SDKs into the Mattermost mobile apps. This would have required hiring developers to perform this task, which would have negatively impacted time to market and cost of solution rollout. In addition, because the Mattermost apps are developed in React Native, and communicate via WebSocket, a framework and communication protocol not natively supported by the BlackBerry Dynamics SDKs, hand coding this integration was not a practical solution for the bank.

Even if hiring developers was a practical solution for the bank, the cost of managing the changes over time of the mobile apps, the mobile OS or the SDKs via manual integration would have been prohibitive. Workplace Services needed a solution to quickly create a GIS-compliant version of Mattermost mobile apps that could be offered to employees, in a manner that addressed these challenges.

This Top 4 US Bank is one of the world's leading financial institutions and a top 4 US bank with over $90B in annual revenue. It has a global workforce of over 20,000 employees and serves both businesses and consumers through operations across 35 countries.

Industry: Banking

Situation: The bank's Workplace Services division was tasked with providing their employees with a mobile app for the Mattermost secure chat service, which had been virally adopted via laptop and desktop, after its rollout in mid 2019. The goal was to provide employees an experience, similar to that delivered by consumer mobile apps. This was a challenge, as the bank's security organization requires any mobile app that accesses corporate data to be managed by BlackBerry Dynamics, the bank's mobile app management (MAM) standard. Workplace Services faced a quandary: how to rapidly deliver an ergonomic mobile user experience for Mattermost, while fulfilling the bank's security requirements, within the necessary timeframe?

Solution: Blue Cedar Accelerator for BlackBerry

Results:

- Delivered BlackBerry Dynamics-secured Mattermost mobile apps for iOS and Android within the necessary timeframe, in advance of the bank's holiday freeze for new solution rollouts. Blue Cedar's in-app interception addressed technical incompatibilities between the BlackBerry Dynamics SDKs and the Mattermost mobile apps.

- Supports Workplace Services' user experience-focused mobile and collaboration strategy, while simultaneously supporting GIS' stringent security requirements

- Established a cost and time-efficient approach for managing mandatory updates to the Mattermost mobile apps, devices, mobile OS' and SDKs, over time

The Solution

Workplace Services selected Blue Cedar, which provides a no-code mobile app security integration platform that embeds BlackBerry Dynamics SDKs into mobile apps without coding. Workplace Services evaluated the Blue Cedar platform and found that the process to integrate BlackBerry Dynamics SDKs into the Mattermost mobile apps was easy and almost instantaneous. All the team had to do was upload unsigned Mattermost mobile app binaries to the Blue Cedar platform and click a button to generate BlackBerry Dynamics-enabled versions of these mobile apps.

The Blue Cedar platform invisibly addresses the technical incompatibilities between the Mattermost mobile apps, which are developed in the cross-platform React Native framework, and use the WebSocket protocol for two-way communication with its secure backend, and the BlackBerry Dynamics SDKs, which do not natively support React Native or WebSocket. This is possible because the Blue Cedar platform has deep visibility into apps, going all the way from the network to the application layer. This depth of visibility enables Blue Cedar to reliably intercept tens of thousands of mobile OS APIs to perform no-code integration of security SDKs, such as the BlackBerry Dynamics SDK, and other controls into mobile apps, regardless of the framework used to develop the apps, or the protocols by which these apps communicate.

The Benefits

Increase Organizational Productivity. Workplace Services expects about 10,000 employees to almost immediately start using the Mattermost mobile apps, with the remaining mobile user population—up to 76,000 employees—adopting it over the next few months. The team expects viral adoption, with minimal internal marketing or inducements needed. Since Blue Cedar generates secured versions of the app for iOS and Android, Workplace Services can address the need for secure workplace communication for the bank's entire mobile population.

Enable Seamless User Experience. Upon the first launch of the native Mattermost mobile apps, users are required to enter the URL of the Mattermost server deployed in the bank's infrastructure to which the apps must connect. This is a problem, as most users will not know the correct server path and there are significant chances of an error being made as users fumble through the process of correctly entering a long

server URL on a small screen. Since Blue Cedar can also embed BlackBerry AppConfig into the BlackBerry Dynamics-enabled version of the Mattermost mobile apps, Workplace Services can preconfigure the app with the correct Mattermost server to which it must connect. This feature improves app ergonomics and usability, and removes a source of user frustration that could negatively impact adoption of the solution. Eliminating a potential source of user calls to the helpdesk is also of tremendous value, as Workplace Services is already being inundated with other mobile-related helpdesk calls. Over time, the team intends to use Blue Cedar to create GIS-compliant versions of other 3rd-party ISV apps, given the ease with which the team was able to do this for Mattermost.

Support Zero-Risk Corporate Security Strategy. Blue Cedar enables Workplace Service to balance their target mobile strategy, which is to foster widespread use of mobile apps and deliver a native experience, with the need to also meet GIS' security requirements. GIS had previously conducted a rigorous security assessment of BlackBerry Unified Endpoint Management (UEM), which includes BlackBerry Dynamics, and given it a stamp of approval as a corporate mobile security standard. As a result, the BlackBerry Dynamics-enabled apps generated by the Blue Cedar platform immediately met GIS' requirement for robust app-level security. The fact that Blue Cedar is a tier one BlackBerry partner, sold and supported globally by BlackBerry, and has successfully applied its no-code technology to hundreds of other mobile apps provided GIS with additional confidence about the efficacy of the Blue Cedar platform.

Contain Mobile Security Integration Costs. Blue Cedar was able to embed BlackBerry Dynamics SDKs into the Mattermost mobile apps, despite them being written in a framework, and based on a communication protocol, not supported by the BlackBerry Dynamics SDKs. As a result, Workplace Services did not have to incur the cost and associated time delay of having Mattermost modify the architecture of its out of the box mobile apps, in order to offer it to their employees. In addition, given GIS' low risk tolerance, without Blue Cedar, Workplace Services would have had to incur the cost of app change requests multiple times a year, every time the Mattermost apps, mobile operating systems, or BlackBerry Dynamics SDKs are updated. In addition to enabling Workplace Service to avoid these development costs, Blue Cedar's automated integration ensures that development time does not delay making GIS-compliant Mattermost mobile app available to users upon release, and every following update.