

Zimperium Secures Connected Apps for Leading Medical Device Manufacturer



Industry

Medical Devices and Healthcare

Location

Global Fortune 500 Company

Solution

zKeyBox
zShield

Customer Profile

This major healthcare and pharmaceutical manufacturer has been at the forefront of medical innovation for decades, delivering connected medical devices used to monitor and treat patients. Its devices and mobile apps are used worldwide by healthcare providers and their patients.

The Challenge

Patients can now use mobile applications to track sleeping patterns, consult with doctors, check records, and test results, order prescriptions, and even monitor and manage critical health parameters, such as glucose levels or heart rhythms in real-time. This customer builds and offers mobile and desktop applications that control and collect information directly from diabetes management systems, such as insulin pumps and glucose monitoring devices. Patient health data is shared with end-users and doctors via mobile and web apps to help align diagnosis and treatment.

Consumer adoption of connected medical devices has led to a massive market opportunity for device manufacturers with the connected medical device market projected to reach **\$181 billion** by 2023. However, for the 13th year in a row, the healthcare sector has the highest breach costs of any industry globally, with an average total of **\$10.93M**.

Challenge Highlights

- Ensure that patient diagnoses and treatments are protected
- Meet strict compliance rules ensuring PII and PHI data is kept secure
- Secure data and encryption keys on desktop, Android, and iOS
- Ensure proprietary algorithms are protected
- Comply with FDA security requirements

The Solution

Needing a single solution that could work across multiple platforms, including desktop and mobile devices, and was able to integrate with minimal impact on their software development lifecycle, the customer turned to Zimperium. Zimperium's [Mobile Application Security Suite](#) (MAPS) helps medical device companies build secure, FDA-compliant mobile applications. MAPS is the only unified solution that combines comprehensive in-app protection with centralized threat visibility and supports all major operating systems with enterprise-grade protection. **Today, Zimperium secures 10+ mobile apps that the FDA has cleared to connect to medical devices.**

The company was especially concerned about securing keys during cryptographic operations to prevent them from being exposed in memory and able to be extracted by side-channel attacks. Zimperium's [zKeyBox](#) ensures the protection of the encryption keys, essential to keep communications and data secure. This solution replaces standard cryptographic libraries with a powerful alternative.

The company operates in a highly competitive environment across multiple countries, making it almost impossible to ensure copyright and IP protection. Zimperium's [zShield](#) embeds advanced security defenses into applications, enabling them to run securely in zero-trust environments. It uses multiple methods including advanced code obfuscation and real-time intrusion detection to prevent tampering, reverse engineering, and other techniques used by cybercriminals to discover vulnerabilities and gain access to sensitive information and IP contained in mobile health apps.

The Results

With the assistance of Zimperium's expert Customer Service team, the company quickly was able to get up and running effectively securing their apps, patient data, and overall business. They were able to seamlessly embed Zimperium's tools into their existing build systems with the protection process becoming nearly invisible to developers and a secure application being automatically created at build time.

The Zimperium Mobile-First Security Platform™ identifies risks across the company's app lifecycle, helping it ensure the integrity of connected medical devices and apps, maintain compliance with key regulators, and protect its brand. The company leverages multiple features available within zShield to prevent static analysis and shield its applications from real-time attacks, including detecting any tampering or inspection attempts and automatically triggering a customer defense function. Alongside zShield, Zimperium's zKeyBox strengthens the cryptographic mechanisms used by the device app, ensuring that encryption keys are always encoded.

For this company, when an app is compromised the consequences can be dire: life can be lost, FDA approval can be withdrawn making it impossible for the product to be sold, or proprietary IP can be stolen. Thanks to Zimperium, their mobile applications are more resilient to inspection, tampering, and IP theft. Zimperium's zKeyBox and zShield have helped the company adhere to the various regulations governing healthcare data and medical device and application security.



Learn more at: zimperium.com

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