

iXGuard

iXGuard is GuardSquare's cutting-edge software for the protection of iOS

iOS applications are generally thought to be more secure than their Android counterparts. However, the last years showed that unprotected iOS apps are vulnerable to reverse engineering, insertion of malware, intellectual property theft, and so forth. A lot of free hacking tools exist that let anyone easily decompile an iOS application and analyse its code.

iXGuard provides cutting-edge protection features custom-built for the iOS operating system. It shields your apps from cloning, tampering and key extraction by applying various obfuscation and encryption techniques. The combined layers provide the best security for mobile applications in sectors as banking, e-commerce, health, social media and gaming.

Arithmetic obfuscation



- iXGuard recursively applies a random number of available transformations to arithmetic instructions, guaranteeing a different result for each handled instruction
- iXGuard can be configured to protect specific, security sensitive functions or entire applications

Name obfuscation



- iXGuard obfuscates identifiers of interfaces, protocols, properties, methods, ivars, etc. in both Swift and Objective-C applications
- iXGuard automatically handles resource files (storyboards, xib files, CoreData files, etc.)
- All available code is processed as a whole, including CocoaPods, Frameworks and dylib subprojects. This creates a bigger search space, increasing the difficulty of reverse engineering attempts
- We give out-of-the-box support for most common Objective-C reflection constructs

String encryption



- A random algorithm and a new key for each encrypted string ensures a single reverse attempt cannot be reapplied to different parts of the code
- The decryption code is embedded in the existing code and specifically obfuscated and randomized, preventing the appearance of a recognizable decryption signature
- iXGuard is applied transparently based on a configuration file and requires no code changes

Easy integration



- iXGuard automatically adds the required additional build phases to most regular projects. In more complex setups, these build phases can easily be added manually using the XCode IDE
- iXGuard scans your project and uses the gathered information to ensure your application's code is processed in an efficient manner

Requirements

XCode 8

We currently only support the latest version of XCode, namely XCode 8.

Bitcode-enabled archive build

In order to use iXGuard, you should be able to create an archive build of your project with the option enable bitcode set to true.



Mobile Application Protection

GuardSquare is the global reference in mobile application protection. We develop premium software for the protection of mobile applications against reverse engineering and hacking. Our products are used across the world in a broad range of industries, from financial services, e-commerce and the public sector to telecommunication, gaming and media. GuardSquare is based in Leuven (Belgium) and San Francisco (USA).