

DexProtector

Feature matrix



TARGET APPLICATION PACKAGES

Android applications: APK; AAB

Android libraries & SDKs: AAR

LANGUAGES & DEVELOPMENT FRAMEWORKS
SUPPORTED FOR PROTECTION

Java

Kotlin

C

C++

Rust

Dart

■ Flutter

C#

■ Xamarin & .NET

JavaScript

■ React Native

■ Cordova & Ionic

■ NativeScript

■ Angular & AngularJS

■ Vue.js

* For any language or cross-platform
framework not listed here, please inquire.



TARGET APPLICATION PACKAGES

iOS applications: IPA; XCARCHIVE

iOS libraries & SDKs: Framework, XCFramework

LANGUAGES & DEVELOPMENT FRAMEWORKS
SUPPORTED FOR PROTECTION

Swift

Objective-C

C

C++

Rust

Dart

■ Flutter

C#

■ Xamarin & .NET

JavaScript

■ React Native

■ Cordova & Ionic

■ NativeScript

■ Angular & AngularJS

■ Vue.js

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CODE PROTECTION & OBFUSCATION

Java & Kotlin

- String Encryption
- Class Encryption
- Hide Access Virtualization
- Annotation Encryption
- JNI Obfuscation
- Code Stripping & Optimization

C, C++, Rust, Dart (Flutter), & C# (Xamarin & .NET)

- Native Library Encryption
- JNI Obfuscation

JavaScript

- JavaScript Code Encryption

RESOURCES & ASSETS: INTERNAL DATA & IP PROTECTION

Resource Encryption

- Encryption of string resources (strings.xml)
- Encryption of files in res/ folder (.png, .jpg, .xml, raw resources, etc.)
- Encryption of files in assets/ folder (.txt, .json, .xml, .csv, .db, .sqlite, .js, .jsbundle, .css, .html, etc.)
- AndroidManifest mangling



CODE PROTECTION & OBFUSCATION

Swift & Objective-C

- String Encryption
- Class (Metadata) Encryption
- Entry Point Encryption
- Symbol Obfuscation

C, C++, Rust, Dart (Flutter)

- String Encryption
- Class (Metadata) Encryption
- Entry Point Encryption
- Symbol Obfuscation

C# (Xamarin)

- Executable file, dynamic library, & precompiled data encryption (Resource Encryption)

JavaScript

- JavaScript Code Encryption

RESOURCES & ASSETS: INTERNAL DATA & IP PROTECTION

Resource Encryption

- Encryption of string resources (.strings)
- Encryption of app resources & assets (.nib, .png, .js, .jsbundle, .css, .html, etc.)
- Encryption of data files (.csv, .xml, .json, .txt, .db, .sqlite, etc.)
- Executable file, dynamic library, & precompiled data encryption





RUNTIME APPLICATION SELF-PROTECTION (RASP)

Anti-Tampering & Modification

- Encryption-based Integrity Control
- Code Checks
- File Content Checks
- Certificate Checks

Anti-Debug

Anti-Frida: dynamic instrumentation & hooking

Anti-Root & Custom Firmware

Anti-Emulator

Anti-Xposed & LSPosed

Anti-Sideload

Anti-Malware

Anti-Keylogging*

Anti-Screen Capture & Screen Sharing

Anti-Overlay

Anti-Remote Access & VNC

* Planned feature; release date to be confirmed



Add-on

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Anti-Screen Capture & Screen Sharing

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Anti-Remote Access & VNC

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NETWORK COMMUNICATIONS HARDENING

Public Key Certificate Pinning

Certificate Transparency Checks

Mobile Application Firewall*

REAL-TIME MONITORING AND TELEMETRY

Alice Threat Intelligence

- Instant integration. Receives and analyzes security-related data from DexProtected applications and libraries. Dashboard for data visualization, event correlation, and suspicious activity analysis
- REST API access
- Custom data reporting

VIRTUAL TRUSTED EXECUTION ENVIRONMENT (VTEE): SECURE APPLETS

CryptoModule Applet

- White Box Cryptography
- User Key Encryption
- User & Local Data Encryption
- Device Binding
- Data Sanitization & Erasure
- Remote Key Injection (RKI) support
- TR-34 Key Distribution support

* Planned feature; release date to be confirmed



Add-on



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NETWORK COMMUNICATIONS HARDENING

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Certificate Transparency Checks

Mobile Application Firewall*

REAL-TIME MONITORING AND TELEMETRY

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One-Time Password (OTP) Applet*

- Secure OTP Generation & Operations
- White Box Cryptography
- Device Binding
- Data Sanitization & Erasure

Identity Applet*

- Secure Digital ID Storage & Operations
- White Box Cryptography
- Device Binding
- Data Sanitization & Erasure

EMV Card Operations Applet*

- Secure Payments Operations for HCE Emulated Cards
- Secure Credentials Storage & Operations
- White Box Cryptography
- Device Binding
- Data Sanitization & Erasure

* Planned feature; release date to be confirmed

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One-Time Password (OTP) Applet*

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Identity Applet*

- Secure Digital ID Storage & Operations
- White Box Cryptography
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* Planned feature; release date to be confirmed

Add-on

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SUPPORTED PLATFORMS

Android Stock Devices (minimum Android 4.4)*

AOSP-Based Builds

WearOS, Android TV, & Android Things

AliOS (YunOS; AliyunOS)

HarmonyOS, HarmonyOS Next

Custom SELinux

Android on Blackberry

Architectures

- ARM
- ARM64
- x86
- x86_64
- NEON
- MIPS

* If you require support for earlier OS versions, please inquire.



Add-on

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Please inquire
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SUPPORTED PLATFORMS

iOS (minimum iOS 12.5.7)*

watchOS

tvOS

Architectures

- ARM64

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BUILD SYSTEM INTEGRATION

Command Line Interface (CLI)

Android Studio

Gradle

Bazel

Maven

Ant

All CI/CD platforms

- Bitrise
- Jenkins
- GitLab CI/CD
- GitHub Actions
- Azure DevOps
- Travis CI
- CircleCI
- Bamboo
- TeamCity
- etc.



BUILD SYSTEM INTEGRATION

Command Line Interface (CLI)

Xcode

Bazel

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