

Security testing for the firmware and pre-installed apps on Android devices

Q-firm detects vulnerabilities and threats in the underlying software and applications that ship with Android devices.

Android mobile devices have become an integral part of our lives, enabling us to perform various tasks and stay connected with the world. To provide this functionality, these devices come pre-loaded with software and their security is of paramount importance.

Q-firm, Quokka's Android firmware security testing offering, leverages multiple different analysis types to identify vulnerabilities stemming from insecure interfaces within the mobile device's environment. A combination of comprehensive static security testing (SAST), dynamic (DAST), interactive (IAST), and forced-path execution app analyses, including flow-based vulnerability scanning, are complemented with expert insights to ensure that every device released by the organization is secure, free from vulnerabilities, and compliant with industry standards.

Benefits of testing firmware security with Q-firm:

- Analyzes pre-installed, hidden, and privileged Android applications embedded in device firmware.
- Uses a unique flow-based vulnerability scanning engine that scans for a wide range of zero-day Escalation-of-Privileges (EoP) vulnerabilities and privacy leaks.
- Scans every possible execution path in an app and provides inter-procedural code and data execution flow paths that exhibit a potential vulnerability.
- Inspects compiled application binaries even when source code is unavailable or obfuscated.
- Generates precise SBOMs mapped to exact library versions for accurate vulnerability reporting.
- Flags behaviors that could enable malware abuse, data leakage, privilege escalation, or command and control, which can give attackers access to the device code, memory, and files.
- Validates firmware against industry security standards including NIST, NIAP, and OWASP MASVS.



Quokka

Quokka (formerly known as Kryptowire) is a mobile security company trusted by Fortune 500 companies and governments worldwide to reduce their mobile attack surface. Utilizing AI-powered engines, Quokka reveals what apps actually do, going beyond surface scanning and static code analysis to deliver visibility and control over mobile app threats.



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