

Mobile application security assessment

Strike a balance of innovation and control while reducing exposure to mobile application risk

Whether it's a hybrid or native mobile app developed in-house or by a third party, there is much to consider when assessing the actual attack surfaces an app creates. To deliver the breadth and depth you need regardless of the underlying platform or device type, Coalfire's mobile application security assessments take the design, configuration, and distinct threats unique to your mobile app's functionality and environment into account throughout the entire engagement.

By combining a practical understanding of distinctive platform and device-specific context with commercial and open-source tools, techniques, and custom approaches, we perform extensive manual testing and review to:

- Verify the confidentiality and integrity of any in-use communication channels, including inter-process communication (IPC) testing if applicable.
- Reverse-engineer and analyze binary package and file contents and test the efficacy of any defensive controls the application may have in place.
- Review runtime behavior on the device to understand potential weaknesses.
- Analyze device data storage and classification of insecurely stored data.
- Identify weaknesses present in the security implementation of network communication channels that can result in disclosure of application traffic.
- Perform penetration testing on any backend web services consumed by the application.

Our mobile application security assessment approach

To optimize the time spent assessing a mobile app, we maximize test coverage by thoughtfully defining the scope at the onset of every engagement.

- **Establish application context:** By taking time to understand your mobile application's intent and features, we can accurately profile the app, communication channels, and device to discern between intended behavior and potential flaws.
- **Execute baseline testing and attack surface analysis:** We deliver an extensive attack surface assessment from a dynamic, runtime perspective of the mobile application and device, including design and implementation vulnerabilities. This enables us to cover risks inherent to the mobile app's technology, implementation, common features, and obfuscation or hardening, as well as risks emergent from functional security and business logic.

- **Perform mobile app-specific device forensics:** To gain an understanding of what data an app might store in memory, logs, or on the device, we perform high-level forensics specific to the underlying device on which an application is installed.
- **Conduct targeted review and testing:** We assess risks unique to the underlying platform operating system, communication channels, functional security, and unique or extraneous features. Identified threats drive much of this phase, which combines in-depth mobile application assessments and necessary penetration testing activities.
- **Report and debrief:** Your team will receive an executive summary and technical details that contain a unique description of each validated vulnerability, supporting screenshots and evidence, reproduction steps, severity and impact, and remediation or mitigation recommendations.

Why Coalfire

- Our AppSec consultants have experience in both software engineering and security consulting, which means we're able to deliver modern, actionable guidance on all aspects of application security.
- We conduct more than 1,000 complex projects each year for clients in the technology, healthcare, financial, manufacturing, energy, and retail industries.
- Our team comprises experienced testers of the world's largest cloud service providers, including Amazon, Google, IBM, Microsoft, Oracle, and Salesforce.
- For the past 10 years, we have trained and educated security professionals at Black Hat in the advanced tradecraft we developed.

Identify live vulnerabilities and issues that threaten mobile applications.

Learn more about Coalfire's mobile application security assessments.

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About Coalfire

The world's leading technology infrastructure providers, SaaS companies, and enterprises – including the top 5 cloud service providers and 8 of the top 10 SaaS businesses – rely on Coalfire to strengthen their security posture and secure their digital transformations. As the largest firm dedicated to cybersecurity, Coalfire delivers a comprehensive suite of advisory and managed services, spanning cyber strategy and risk, cloud security, threat and vulnerability management, application security, privacy, and compliance management. A proven leader in cybersecurity for the past 20 years, Coalfire combines extensive cloud expertise, advanced technology, and innovative approaches that fuel success. For more information, visit [Coalfire.com](https://www.coalfire.com).