

Mobile Device Security



The Problem

- Mobile platforms are the most used platform in the corporate environment, and this proliferation has created the most widespread vulnerability.
- Employees are issued with smartphones to improve productivity and responsiveness, but without any threat or risk implications taken into account.
- Mobile devices are constantly introduced into corporate network (either by design, or inadvertently) – without any clear policy, or testing for the exposure that such devices introduce to the corporate security landscape.
- Applications are built in-house, commissioned, or simply bought off the shelf. None of which are going through any assurance process, and are prevalent at every level of the organization.
- Mobile platforms carry an implicit trust with them since they seem like limited devices with well-designed user interfaces and usecases. They are actually built on fairly open platforms, fully featured computing platforms (equivalent of PCs), and a fully featured network stack.
- Malicious software is easy to introduce into EVERY platform in the market (iOS, Android, BlackBerry OS, Windows Phone 7).

Breaching the Network Perimeter

- Mobile devices have essentially de-perimiterized even the more vigilant organizations.
- WiFi connectivity to the corporate network, combined with 3G access to the public internet, and occasional connectivity to unknown networks (coffee shops) have rendered these devices into a highly sought after attack vector for criminals.
- !! Conclusion: Companies need to assess their current situation internally in terms of mobile platform threats, as well as create a development and testing framework for the applications they build for their customers and users.

Mobile Application Security Review & Design

Testing existing applications for security flaws including:

- Data leakage through mobile platforms
- ✓ Creating network breaches/bridges into the corporate LAN
- Compromising applications and devices for spying and exploiting additional corporate resources

Comparing risk postures of mobile application use vs. standard online (web) or client-server models used, by analyzing the threat and risk models of both channels, and creating a roadmap that assures security on both.

Mobile Application Security Testing

Mobile platform exposure risk analysis provides an accurate risk analysis for the organisation, with actionable recommendations for policies & controls by:

- Review & test of mobile usage in a corporation.
- > Test currently deployed applications, platforms, and topology.
- Check newly introduced devices

Our testing methodology for mobile devices includes, but not limited to:

- ✓ Local Vulnerabilities
- ✓ Remote Vulnerabilities
- Network Vulnerabilities
- ✓ Fraud-Proof/Phishing/Usability
- ✓ Theoretical Attacks

Secure Development LifeCycle for Mobile Application R&D

We offer several services that can be obtained as a full package or on a staged basis for application security testing.

- ✓ Design review and modifications
- ✓ Architecture review
- ✓ Threat Modelling
- ✓ Code review
- ✓ Black/Grey/White box testing of an application
- ✓ Testing of Mobile applications

Training	Core capabilities
Requirements	Establish security req. Create thresholds Security & privacy risk assessment
Design	Establish design req. Analyze attack surface Threat modeling
Implementation	Tools and libraries Deprecate insecure functionality Static analysis
Verification	Synamic analysis Fuzzing Attack surface review & correlation to threat models
Release	Incident response plans Security Review Release
Response	Execute incident response Derive requirements and design for releases