

# Penetration tests for mobile devices



## AEC

### Keeping company data and your clients' data safe

Over the past few years, a lot of IT activity has shifted from computers to mobile devices. Smart devices monitor homes, mobile phones access financial accounts or company mail. As the amount of information available online is growing rapidly, so too are the demands on its security.

Penetration tests on these devices help to expose serious flaws when using various applications, flaws that could do great damage if exploited by attackers. Our team of ethical hackers looks for security lapses and simulates attacks on both the application (client) and network (server) parts of the system. This tests their ability to withstand real cyber-attacks from outside.



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### Penetration tests and audits

#### Mobile apps

We look for flaws in their implementation and help clients create secure apps. We offer two types of tests: comprehensive vs. rapid.

#### Mobile Device Management (MDM)

We help companies set up effective control mechanisms for safely using mobile devices in the corporate environment.

#### Mobile Operating Systems

We analyse and consult on the potential risks associated with using specific mobile operating systems and help find secure solutions for using mobile devices in the company environment.

#### Mobile phones

We carry out a forensic analysis of mobile devices that have been the target of hacker attacks.

#### IoT devices

We verify the security of smart mobile devices and smart home solutions that have become an inescapable part of corporate and home networks.

#### Source code

We check the application code and help our customers develop secure applications.



## Penetration tests on mobile apps

- Application audits for iOS and Android operating systems.
- Our own methodology based on OWASP Mobile Top10 and Mobile Application Security Verification Standard (MASVS), extended to encompass business logic tests and other scenarios making use of our many years of experience.
- Using manual, automated and semi-automated techniques to uncover vulnerable parts of applications.
- Penetration tests for a mobile client, transport layer and the application's server side. Investigating the possibility of data leakage, privilege escalation, authentication issues and much more.
- So we can adapt to customer needs, we offer two testing options:
  - Comprehensive (full scan): a full penetration test that scans all parts of the application in line with the complete methodology.
  - Rapid (quick scan): a reduced penetration test where we only focus on the application's most important areas and the most common types of vulnerabilities. Usually half the workload of comprehensive tests.

## Mobile Device Management (MDM) audits

- Configuring the administration interface according to current security standards and practices,
- Setting up and configuring mobile devices according to company policies,
- Penetration tests for mobile applications with MDM and used in the corporate container,
- Consultation on and setting up BYOD policies.

## Audits on mobile operating systems

- Analysis of the operating systems' critical areas,
- Consultation on possible solutions for the safe use of mobile devices in the corporate environment.

## Forensic analysis of mobile devices

- Analysing unusual application or system behaviour,
- Checking for the presence of harmful malware, possible security flaws and traces of penetration and data exfiltration from the device.

## Penetration tests on IoT devices

- Verifying the security of devices connected to a corporate or home network,
- Analysing the physical security, firmware, communication (including wireless) in the framework of the internal network or cloud,
- Smart home solutions, cameras, cars, routers, intercoms, smart cities and more.

## Analysing source codes

- A combination of static analysis using automated tools and a manual code review,
- JAVA, C#, JavaScript, Kotlin and other languages

## Our advantages

- We are a well-established Czech security company that has been successfully operating on the market for over 30 years.
- We have more than 10 years of experience in the field of mobile application and platform security.
- Our team is made up of specialists with experience from hundreds of mobile projects.
- We hold the eMAPT, CISSP, OSCP, OSCE, CEH certificates and many others.
- We run our own hacking lab to research mobility and IoT.
- We listen to our clients and tailor the tests to their needs and time constraints.
- We follow modern trends in mobile security and technology.
- We emphasize a manual approach to testing, which leads to more bugs being revealed, especially in the applications' business logic.

## References

Škoda Auto a.s.  
Komerční banka a.s.  
Kooperativa pojišťovna, a.s.  
SAZKA, a.s.  
Raiffeisenbank a.s.  
Generali Česká pojišťovna, a.s.  
Novartis s.r.o.

