CASE STUDY

APPLICATION SECURITY ASSESSMENT FOR AUTOMOTIVE MOBILE APP

Client Background

Our client is one of the world's most advanced automobile manufacturers and the largest vehicle producer in Europe. With almost 100 production plants worldwide, the company manufactures cars as well as provides a vast portfolio of vehicle-related services. It is the goal of the company to offer attractive, safe and environmentally sound vehicles, which are competitive in an increasingly tough market and set world standards in their respective classes.

Business Challenge

Our client wanted to launch a new mobile online service for individual navigation and vehicle connection with a smartphone. Before an official release, the company needed professional consulting and analysis of the new product for compliance with security requirements against potential iOS and Android mobile apps threats. Relying on positive references from the partnering organizations within the automotive community, the company retained SoftServe to perform their application security assessment offering which includes:

- Threat modeling analysis
- Static code testing
- Dynamic code testing
- Manual penetration testing
- Resolution and reporting delivery

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Project Description

Mobile application testing was conducted by SoftServe's security team of three certified ethical hackers, namely a security consultant and two security engineers, within a tight timeframe of two weeks. During this assessment, SoftServe's security experts used the most advanced OWASP guidelines and standards, including the OWASP Application Security Verification Standard, OWASP Top 10 Mobile Risks, and OWASP risk rating methodology. Code analysis and scans were performed with the use of IBM AppScan Source and Veracode automation tools.

Based on the grey-box testing, the process was divided into three stages:

The customized security assessment process covered the following areas for testing:

- Data protection
- Authentication
- Session management
- Access control
- Input validation
- Output encoding/escaping
- Cryptography
- Error handling and logging

By identifying a number of security gaps to be addressed, SoftServe's team prevented a range of potential threats such as hacked access to the on-board computer, which could result in invasion of privacy, malicious disorientation or even car accidents.

Value Delivered

The initial version of the client's mobile app was unstable and experienced occasional stop functioning correctly. Without SoftServe's penetration testing, the application could have easily been hacked, which would damage the company's reputation.

Within a tight timespan of two weeks, SoftServe's team:

- Detected a range of defects that made the application unstable and vulnerable to external intrusion.
- Provided far-reaching recommendations with regard to mobile apps, server side and design/logic.

The successful code analysis and scan is the first step in a series of hardware security assessments of the client's car managing modules, performed by SoftServe as the company's strategic cybersecurity service provider.

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ABOUT US

SoftServe is a digital authority that advises and provides at the cutting-edge of technology. We reveal, transform, accelerate, and optimize the way enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation—from generating compelling new ideas, to developing and implementing transformational products and services.

Our work and client experience are built on a foundation of empathetic, human-focused design that ensures continuity from concept to release.

We empower enterprises and software companies to (re)identify differentiation, accelerate solution development, and vigorously compete in today's digital economy—No matter where you are in your journey.

Visit our **website**, **blog**, **Facebook**, **Twitter**, and **LinkedIn** pages.

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