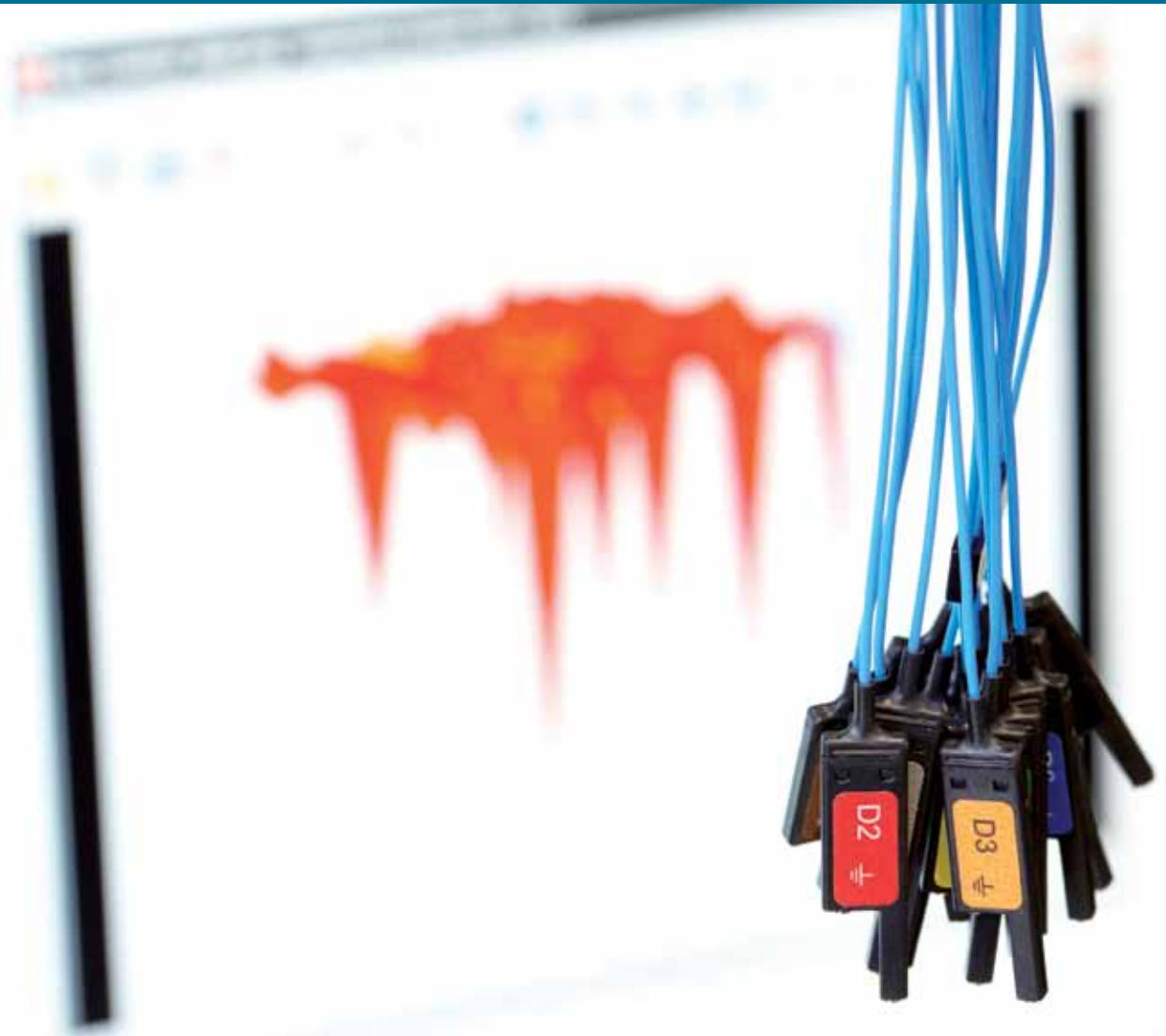


SECURITY TEST LAB

SECURITY ENGINEERS WITH A HACKERS' MINDSET



VULNERABILITY TESTING & ARCHITECTURE ANALYSIS

MOTIVATION

Your company has a great product or online service. Could security issues destroy your software, your customers' data, and your business? To know for sure, you will need security experts to analyze, test, and evaluate your product for vulnerabilities. You might hire a hacker to try and attack your software, and receive a random list of issues – or hire security engineers with a hackers' mindset, but an engineering attitude, and get a comprehensive security assessment.

Security requirements impose a burden upon developers, requiring extra work. But success and failure alike remain virtually invisible until an adversary attacks your product in the field. By this time, fixing a vulnerability will have become difficult and expensive, particularly if the root causes lie deep in the architecture of a system.

A security evaluation in our lab gives you early access to critical information about the true security of your product or service. If vulnerabilities exist, the evaluation buys you time to work on the issues before somebody with malicious intent discovers and exploits them.

CHALLENGES

Application security is a complex moving target. Even for the same product, security requirements vary widely depending on use cases, threat profile and assets to be protected. Having properly implemented security mechanisms does not suffice to make an application secure. Your application must consistently enforce a wide range of functional constraints to prevent attackers from abusing it. But your business demands assurance with reasonable effort.

Some tools exist to automate testing tasks, such as vulnerability scanners and source code analyzers. These tools remain limited in the range of defects they can find and can only support but not replace a security engineer.

Formal security certifications matter in some market segments, but have a different focus. We aim to find the vulnerabilities that harm a system in the field, rather than those that happen to be included in a standard. Our evaluations explore the target systematically with the threat model in mind. We start where security standards end. For each evaluation, we customize our approach, considering the specific deployment scenarios, environments, threats, technologies, and other security factors.



OUR OFFERINGS

Our lab serves developers and vendors of IT products, corporate users, and third parties. All security evaluations include requirements and threat analysis, architecture analysis, hands-on vulnerability testing, and an overall assessment of the results. We are familiar with a wide range of technologies and application areas.

Developers and Vendors

- **Product security evaluation:** We set up a test bed for your software or appliance in our lab; you provide samples and development artifacts to support the evaluation. The result is a confidential evaluation report.
- **Service security evaluation:** Like a product evaluation, but we access the target remotely and provide a report.
- **Security certification:** If we find your software is secure for its purpose, you receive a certification and a certification report for use in customer and public relations.

Corporate Users and Third Parties

- **Product assessment and comparison:** We support your procurement decisions by evaluating products to your requirements.
- **Integration analysis:** We analyze the security impact of integrating an application with other systems.
- **Guidelines and vulnerability mitigation:** After product assessment we propose security measures to mitigate the vulnerabilities found.

CUSTOMER BENEFIT

In competitive markets, superior security can be the edge that makes you the market leader. Our evaluations give you an honest and comprehensive assessment of your security posture, support your development strategy and risk management, and help you to respond to the security needs of your customers.

Our evaluation reports provide you with everything you need to make informed decisions: documented requirements and assumptions for your software architects; detailed descriptions of tests and results for your developers; and summary assessments for your management.

Our certificates and certification reports show to your customers and the public that you care about security and that your products meet highest requirements. Issued by an independent lab they convey trust and confidence and strengthen your sales potential.

Security evaluations in an external lab complement your own security efforts. They add an outside view and protect you from organizational blindness.

REFERENCES

- Research In Motion (Canada): Security evaluation and certification of the BlackBerry Enterprise Solution
- Disetronic Medical Systems AG (Switzerland): Security evaluation and certification of a therapy device with wireless control
- Bundesministerium des Innern – Federal Ministry of the Interior (Germany): Application test of the new electronic German Identity Card
- Bundesamt für Sicherheit in der Informationstechnik (BSI) – Federal Office for Information Security (Germany): Development and publishing of guidelines for enterprise deployments of Bitlocker Drive Encryption
- DICA Technologies GmbH (Germany): ISDN telephone encryption solution
- Axel-Springer-Verlag, Computerbild (Germany): Assessment and comparison of end-user security products for a computer magazine
- Baden-Württembergische Bank (Germany): Certification of security measures in an Internet banking service

THE INSTITUTE

Information technology has already permeated large parts of our everyday life: whether it be a car, telephone or heating. Without the use of IT, the majority of devices and systems are almost inconceivable. Businesses in particular use IT systems to effectively design their working processes. The Fraunhofer Institute for Secure Information Technology focuses on protecting these systems against failures, attacks and manipulations.

The Institute works for companies in various industries. Many successful projects with international partners are impressive evidence of the faithful and reliable cooperation. Our customers include HP, Software AG, SAP, Lufthansa and the Federal Office for Information Security.

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