



# Penetration testing

Test your networks before attackers do

Security evaluations and penetration tests help identify vulnerabilities in hardware and network components.

## Examine the assurance - why?

Research shows that many intrusions are left unknown to the target for long periods of time leaving them unaware that they are under attack. One study shows that the average amount of days that attackers were intruding a target's network were over 7 months before discovery.

There are naturally many sources for security leakages. Complicated, faulty processes or employee misuse of systems and tools are more often an entry point to a weakness than the technical defense itself. Flaws are often related to knowledge gaps of how to perform tasks, sloppiness or unintuitive systems.

To protect one's IT infrastructure from assurance complications, from the various risks involving IT hardware to the risks of the human element, it is important to prevent any possible intrusion.

Security evaluations and penetration tests are measures to create an adequate protection against threats such as unauthorised industrial espionage or intelligence gathering.

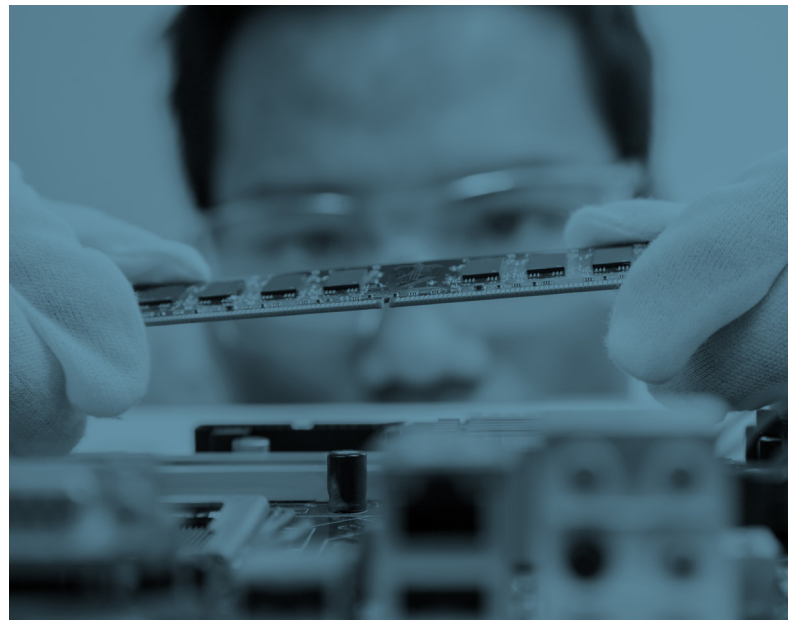
The main purpose of security evaluations and penetration tests is to identify vulnerabilities in an organisation, processes or information flows to make the customer aware of their potential threats.

## Dynamic evaluations

Advenica's core business is IT security and the company has an extensive knowledge within the areas of security architecture, secure programming, information seg-

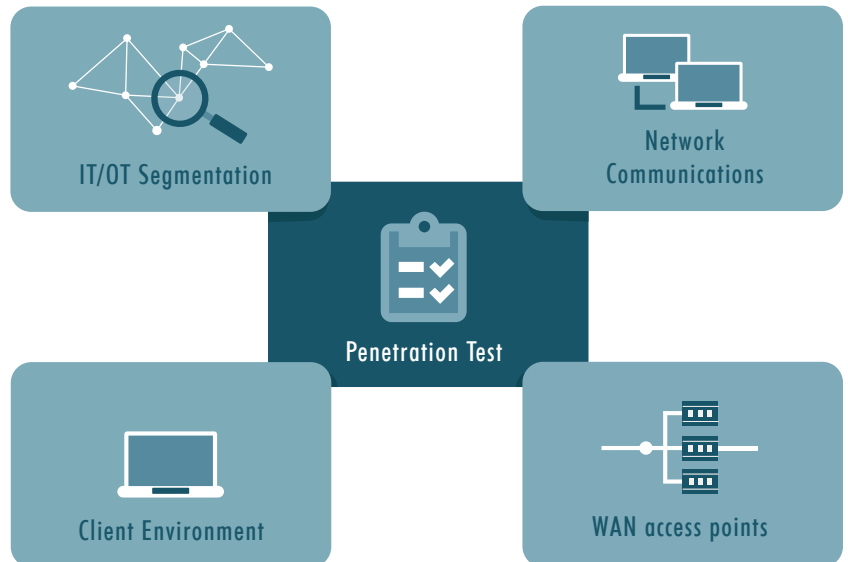
mentation and testing security-critical systems. We work regularly with national and foreign customers with the highest security demands. With this tool box we formalise the security evaluation dynamically with the customer.

Advenica provides penetration testing on embedded systems, mobile applications, operating systems, windows applications and networks.



*Advenica works with security evaluations within the following technology areas: intrusion prevention, intrusion detection, cryptology, protocol analysis and protection against malware.*

For each individual security evaluation we utilise a test team with knowledge of that particular architecture. Our test teams are experienced in different testing methods and the various tools an attacker might use for a specific target system.



The five steps in Advenica's security evaluations.



## Our evaluation process

### Security Analysis

At the beginning of a security evaluation we perform a security analysis of the target system's interfaces and architecture in order to be able to identify potential internal vulnerabilities. Additionally interviews with employees can be held to identify weaknesses.

### Test plan

A detailed test plan serves as our foundation for an efficient penetration test. During a penetration test existing documentation can occasionally serve as a good starting point to exclude the presence of uncertain and undocumented functionalities.

### Penetration Test and Discovery

The technical penetration test of target systems is based on the security analysis and relevant intrusion methods. The tests are based on the automatic scanning of external interfaces for a variety of known existing vulnerabilities, but also on custom-made attack scripts specifically developed for the product or system.

### Evaluation and Reporting

The security evaluation results in a written evaluation report describing the identified vulnerabilities, as well as an executive summary. We also deliver a verbal description.

As a result of the evaluation we can also provide a mitigation plan and solution proposals for the identified gaps.

### Why choose us?

Advenica's core business is IT security. We have delivered secure IT solutions to the most security-demanding customers for two decades. In particular, embedded systems require resources beyond those provided by general IT security testing. Advenica has extensive knowledge in the security architecture of embedded systems.

We perform security evaluations and penetration tests at customer site or in our in-house laboratory, where we live by the highest existing security requirements. This ensures that only authorised personnel have access to evaluated products and systems.