SOURCE CODE ANALYSIS

Secura delivers world-class security assessment services. A very important part of our service offering, and often combined with Vulnerability and Penetration testing, is source code analysis. Secura started testing for customers in the year 2000 and has been a renowned party in security assessments ever since.

IN CONTROL WITH SECURA

Secura has worked in information security and privacy for nearly two decades. This is why we uniquely understand the challenges that you face like no one else and would be delighted to help you address your information security matters efficiently and thoroughly. We work in the areas of people, processes and technology. For developers and users, we offer a security assessment of the source code, regardless of the programming language or framework used.

SOURCE CODE ANALYSIS

Software development has been going thorough rapid changes. The time-to-market of software products, agile teams, devops and other factors all contribute to an increasing pressure on developers. Often, getting the product out on time means limited attention has been given to security during the development cycle. This leads to vulnerabilities in products and applications, with possibly a large impact on costs, marketability and compliance.

In order to lower these risks, it is good practice to review the source code (and software architecture) for security weaknesses, before the system goes into production or is exposed to the market. In some markets, compliance to coding standards such as MISRA (Motor Industry Software Reliability Association) is becoming mandatory under schemes such as

AUTOSAR. SEI CERT coding standards are also increasing in popularity. But whatever the coding standard to adhere to, it only makes sense if you inspect the code for use of the standard and also any other logic errors that might exist. Secura can perform these source code inspections for you.

Secura uses a combination of tools and the knowledge of our experts to identify weaknesses and vulnerabilities in your code, and adherence to standards. Also known as Static Application Security Testing, or SAST (as opposed to Dynamic Application Security Testing, or DAST, where the code is executed in order to identify vulnerabilities), such an analysis is a close inspection of the code that makes up the business logic of your application. It is the best way of spotting vulnerabilities that are not immediately apparent when performing a penetration test such as backdoors and hardcoded credentials. Issues that are commonly identified during source code reviews are:

- Cryptographic flaws
- Incorrect use of library functions
- Input validation errors
- Exception Handling errors
- Backdoors
- Hardcoded credentials
- Unsafe use of resources (Memory, Storage)
- Race conditions

Source code reviews work best when used in the development cycle, and in conjunction with other Secura services, such as Design Review and Penetration Testing. During each sprint (or when a security-relevant change has been made) the code is inspected for security flaws.

All our source code analysis services result in a written report. This report is structured in a logical way (introduction, management summary and detailed findings) describing all the important risks we identified, a technical section showing the code lines and flaws we found. All findings are classified according to our standard risk model based on impact and probability of misuse. And we provide clear and concise recommendations for improvement on operational, tactical and strategic level where appropriate. This means that your team leads, developers and engineers will be able to fix these flaws, before someone else finds them. In our report we tell you what to fix, and with what priority. Our recommendations are actionable and scored: you will know exactly what to do first.

INTERESTED?
Would you like to learn more about our services?
Please do not hesitate to contact us.

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