Lehrstuhl für Sicherheit in der Informatik
Prof. Dr. Claudia Eckert

Announcement of student job (HiWi)
in Cooperation with Fraunhofer AISEC, Garching

Evaluation and extension of an knowledge-based security simulation framework

Motivation

Simulation-based security evaluations of large-scale IT environments is a suitable approach for analyzing attacker behavior and identifying possible attack vectors. IT infrastructure is present in a multitude of different domains, such as office workspaces or shopfloor manufacturing. With knowledge-based systems security-related descriptions can be applied to different domains.

Task Description

An existing knowledge-based simulation framework for information security evaluations is to be documented and extended. In the first step, the framework's source code needs to be documented with basic examples being executable. Then, suitable hook points for future extensions to the framework need to be identified, extended, and implemented. Adaptability towards different domains is an important aspect of the task.

Requirements

- Strong practical programming skills in Java
- Background in IT security and semantic web
- Experience with simulation is beneficial

Contact

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