MrCySeMoL (main product: securiCAD)

Proactive, cyber security, CAD-tool

State-of-the-art CAD-tool for proactive cyber security management

Overview

Developed as part of the MrCySeMoL project, securiCAD is a state-of-the-art threat-modelling and computer-aided design (CAD) tool for proactive cyber security management. The user starts by inputting the architecture. The tool then simulates hacker attacks and provides a “heat map” of where the architecture is likely to be vulnerable, based on security research and expertise combined with sophisticated network analysis.

Through this approach, securiCAD enables companies to proactively manage their cyber security architectures in an efficient, quantitative manner, founded on objective expertise. More specifically, it enables companies to:

- understand current cyber security levels across complex architectures
- prioritise areas to address and cyber security investments to pursue
- proactively manage cyber security

Key facts

- **Project started:** 2014
- **KIC:** KIC InnoEnergy
- **Theme:** Smart electric grid
- **No. of partners:** 3

KIC InnoEnergy support

“KIC InnoEnergy has been central to the commercialisation of our project. Through the KIC, we were able to apply for Innovation Projects and also join the Business Creation service which was, together with the end-user demand from our first high-profile commercial customers such as ABB, a key driver for the company.”

Market potential

Based on a state-of-the-art approach that supports holistic, forward-looking analyses in an effective way, securiCAD’s unique features include:

- supports a top-down managerial approach, as well as a detailed security architect approach
- provides actionable output with incomplete details
- scanning not required and less overall expertise required

These features enable securiCAD to provide consumers with improved security, better return on investment, improved efficiency, and a fact base for communication and decisions.

The strong market potential for securiCAD was highlighted recently when project leader foreseeTI was included on the prestigious ‘33-list 2016’, which recognises the most promising Swedish technology start-ups, and was awarded SEK 250,000.
Societal impact

Cyber security is crucial to the energy industry and cyber attacks can have a major effect on societies and threaten lives. Current information and operational technology systems are typically very vulnerable to cyber attacks and the threats are real and increasing, as reported in the media. Energy companies have a massive challenge in understanding how they should improve the security of their systems. This vital societal challenge can be managed by securiCAD in an effective way.

Achievements so far...

- First commercial version of securiCAD produced at the end of 2015
- First commercial customers secured in 2015: ABB and two large Nordic banks
- Significant interest from leading security consulting companies including Sogeti (Global), Combitech (Sweden) and Aspec (Germany)

Teamwork

There are three partners within the project: foreseei, KTH Royal Institute of Technology Stockholm and paluno – the Ruhr Institute for Software Technology.

Start-up foreseei does most of the development and commercialisation activities. KTH has the background knowledge with regards to the modelling tool and the security framework, and contributes to the project’s development activities, while paluno focuses on the specific module for advanced software analysis.

In addition, ABB and other end-users are involved in providing input into the project’s development. The skills of the partners and end-users complement each other perfectly, bringing technical expertise and knowledge of customer expectations and needs to the project.