

Implementation of a Tool for Cyber Security Management

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Abstract

Purpose of the article Purpose of the article is an implementation of a software tool in order to increase the effectiveness of cyber security management and to ensure compliance with cyber security legislative framework of the Czech Republic. The tool is implemented in a particular business organization preparing to be classified as a part of critical information infrastructure.

Methodology/methods literature and legislative research, interviews, SWOT analysis, Gantt chart, network analysis, methodology of ENISA (ROSI – Return on Security Investment), creating implementation methodology based on cybersecurity legislation.

Scientific aim Scientific aim of this paper is to select suitable cyber security management tool based on the customer's requirements. Following the selection of the tool it is necessary to create the methodology of implementing the tool and thereafter practically implement it. The aim of mentioned steps is to prepare the company for security audit of the National Office for Cyber and Information Security (NÚKIB) including preparation of the mandatory documentation and evaluation of the financial efficiency of using the implemented tool.

Findings Based on the requirements and analysis of various tools, I choose the ESKO CZ tool as most suitable. Subsequently, I proposed a methodology for implementing the tool according to relevant legislation, which I immediately applied.

Conclusions The output of the work is successfully implemented tool, completed risk analysis and security documentation required by Czech law. Implementation of the tool leads to automation and easy maintenance of up-to-date documentation in the field of asset and risk management, moreover it applies best practice procedures and leads to more efficient security audit. According to final economic evaluation by the ROSI methodology, investment in the chosen solution is financially efficient.

Keywords: Risk analysis, Security audit, ICT security, Critical infrastructure, Critical information infrastructure, Cyber security, Cyber security management tool

JEL Classification: M15, M21

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