

## SUMMARY

The doctoral dissertation entitled „The concept of a security system for information exchange in the State Fire Service” was intended by its author to identify and learn about the information system existing in the State Fire Service and its threats, shortcomings and weaknesses. Then, the author presents an original, possible to introduce concept of changes in its functioning in order to improve the operation of the entire State Fire Service formation as a hierarchical organization.

As part of this dissertation, an in-depth and precise analysis of the principles of functioning of the State Fire Service organization as a typically hierarchical institution was made. The environment (both internal and external) in which the institution operates was also examined and presented. The definition and role of information and its importance for the efficient operation of the entire information system, including the threats to which this system is exposed, were thoroughly presented. Particular attention was paid to the effects of disruptions in the process of information circulation. At the same time, a number of improvements were proposed to improve the security of the existing information system, taking into account innovative solutions in the organizational, technical and functional areas.

According to the subject and purpose of the research, the main research problem of the dissertation was defined with the question: What changes should be introduced in the information exchange security system in a public organization such as the State Fire Service, so as to improve the effectiveness of information circulation security?

The main motive for which the author undertook to write this doctoral dissertation was professional experience during many years of service in the State Fire Service, in various positions in its structures, and the desire to translate these experiences into improving the effectiveness of one of the most important formations in the security system of the Polish state by improving security information system and information circulation. The previous experience related to the flow of information and the perceived imperfections and deficiencies in the functioning information system of the State Fire Service, according to the author, require improvements to improve its effectiveness, eliminate disruptions in its functioning and ensure efficient transfer of information at all levels of the service hierarchy. Based on his own professional experience, supported by a thorough analysis of the literature on the subject, the author came to the conclusion that it is possible to propose changes to improve the security of the information system of the State Fire Ser-

vice.

As a consequence, it is supposed to improve the flow of information, the quality of the information itself in the organization and eliminate all communication noise.

The dissertation consists of an introduction and conclusion as well as four substantive chapters: Chapter 1 Methodological basis of research; Chapter 2 Fundamentals of information system security management in public institutions; Chapter 3 Threats to the security of the information system on the example of the State Fire Service; Chapter 4 The concept of information system security in the State Fire Service.

The first chapter presents the subject and purpose of scientific research. The research problem was outlined, as well as working hypotheses and detailed hypotheses. Empirical and theoretical methods, techniques and research tools used by the author during his research were also presented. The area of research was discussed in detail, and the research sample that was subjected to this research was characterized.

The second chapter presents the theory of information system security in public institutions, taking into account the theoretical and legal context. This part defines, among others, the definition of information, with particular emphasis on what information security means for modern organizations. In addition, the importance of information security systems in the aspect of ensuring state security was also discussed. Technical and organizational measures affecting information security in the organization were presented. In the legal aspect, the applicable normative acts were approximated together with standards and other generally applicable regulations. Then, a diagnosis of the information system functioning in state institutions is presented, including information security management in the organization.

In the third chapter, threats to the security of the information system are outlined on the example of a public institution such as the State Fire Service. The author presented aspects of the security system and its strategy, taking into account the norms and standards of information system security that should apply in a state institution. The characteristics of threats and limitations of the security of the information system in the State Fire Service, resulting from the specificity of its activity and a large group of users, was made.

The last, fourth chapter is the empirical part of the work, covering the author's own research, which helped him to develop his own, innovative concept of information system security in the State Fire Service. In it, the creator outlined the directions of changes in the functioning and organization of the information system at the organizational, technical and functional levels in order to improve its security.

The doctoral dissertation is a specific summary and review of knowledge in the field of the discussed subject and is an extensive collection of exhaustive content relating to the information system. The analysis of the literature allowed for the creation of a compact, innovative work that exhausts the main research assumptions.