

Theme of the final qualifying work: "Analyzing and improving remote authentication methods (on the example of the complex of departments of PSU)"

Final qualifying work author: Yatsenko Andrey Nikolaevich

Scientific adviser of the final qualifying work: Cand. tech. Sci., Associate Professor of the Department of Information and Communication Technologies, Mathematics and Information Security V.A. Kozlov.

Information about the contracting authority: Pyatigorsk State University is one of the largest educational institutions, implementing programs of secondary professional and higher education. The university is working on a variety of areas, such as providing continuous innovative educational activities, conducting research and development, as well as innovation. To date, more than 7,000 students are enrolled in higher education institutions and branches, and training is provided for more than 30 educational programs.

The purpose of the work: is to develop a set of engineering, technical, organizational and legal measures to ensure the proper level of the security of acoustic information.

Tasks:

- characterization of the Pyatigorsk State University, a complex of departments of the PSU;
- analyzing of the hardware and software in the complex of PSU departments;
- studying the literature on information security, which reflects the problems of this work; acquaintance with the existing measures of the acoustic information protection;
- making a set of necessary measures to protect information;
- proposing ways to ensure the proper level of the acoustic information protection;
- developing a project consisting of a set of the most effective measures to protect information in the institution.

The theoretical and practical significance of the research: The theoretical significance of this scientific research is the following:

analyzed regulatory and legal documents in the field of information security;

Analyzed special literature and researched the market of software and hardware products in the field of information security;

studied information security systems functioning on the object under investigation, as well as software and hardware to protect information;

Identified problems and shortcomings in the system of integrated information protection in this enterprise.

Practical significance of the results:

analyzed and investigated the remote authentication algorithm, built on the basis of a hybrid probabilistic model of cryptographic transformations.

Results of the research: In the conclusion of the underwater works performed works and proposals to improve the system of remote mutual authentication when working with clients on unprotected communication channels.

Recommendations: To refine the existing system of protection of remote authentication methods, developed in the thesis.outside of the working hours to reduce the risk of wiretapping.