

Theme of final qualifying work:

Development of an integrated security system for UKB FGBOU VO "PGU"

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Information about the customer organization: Federal State Budgetary Educational Institution of Higher Education "Pyatigorsk State University"

Relevance of the research topic: to ensure the highest security of information at the university, it is necessary to improve the integrated security system; such a system allows combining disparate means and methods of information security of an institution into a single whole, which allows to manage and monitor all subsystems from one place and quickly process incoming data. Therefore, the question of combining all information security tools into a single complex is relevant today.

Objective: development of an integrated security system and its implementation in FGBOU VO "PGU".

Tasks: institution analysis; analysis of the unit and the subject of its activities; analysis of hardware and software, information flow in the institution; analysis of the means and methods of information security in the institution; setting the task of improving the integrated security system of the institution; selection of information security tools; development of a project for the practical application of these protective equipment.

Theoretical and practical significance of the research: analysis of the structure of the UKB PSU, the state of the information security system, the study of modern information protection tools; The results of the study can be used by the university when introducing new security tools to increase the level of information protection.

The results of the study: after examining the institution, the following protection deficiencies were highlighted:

1. The absence of provisions on anti-virus protection.
2. No cameras are installed in one of the car parks.
3. The outdated anti-virus program Kaspersky Internet Security 2015 is installed on the PC.
4. Backup information is performed by means of Windows.
5. On personal computers of employees password protection of Windows is used.
6. In the integrated security system there is no specialized software interface - the system for collecting and processing information (SSOI).

Recommendations: in accordance with the identified shortcomings, measures were proposed to eliminate them:

1. Implement the provision of anti-virus protection.
2. Install additional cameras of the ForPost video surveillance system.
3. Install Kaspersky Internet Security 2019 antivirus software.
4. Implement professional information backup software "Todo Backup".
5. Install two-factor hardware authentication Rutoken Web.
6. Integrate the LyriX-Server interface into a comprehensive security system.