Белков Д.М.

Научный руководитель : ст. преподаватель Мацкевич К.О.

Муромский институт (филиал) федерального государственного образовательного учреждения высшего образования «Владимирский государственный университет имени Александра Григорьевича и Николая Григорьевича Столетовых»

602264, г. Муром, Владимирская обл., ул. Орловская, 23

E-mail: dima.belkov.95@mail.ru

Information security

The information security is understood as security of an information system from the casual or deliberate intervention causing damage to owners or users of information. In practice there are three basic aspects of information security:
  -availability (an opportunity to receive the required information service for reasonable time);
 - integrity (relevance and consistency of information, its security from destruction and unauthorized change);
 -confidentiality (protection against unauthorized reading).

Violations of availability, integrity and confidentiality of information can be caused by various dangerous impacts on information computer systems.

Emergence of new information technologies and development of powerful computer systems of storage and information processing have increased the levels of information security and have caused the necessity in that, the efficiency of information security grew together with complexity of data storage architecture. So gradually protection of economic information becomes obligatory: various documents of information security are developed; recommendations about information security are formed; even the Federal Law about information security which considers problems of information security is carried out and also resolves some unique issues of information security.

Thus, the threat of information security has made by means of information security ensuring of one of the obligatory information system characteristics.

Today there is a wide range of storage systems and information processing where in the course of their design the factor of information security of the Russian Federation of confidential information storage is of particular importance. It is possible to carry out such information systems, for example, banking or legal systems of safe document flow and other information systems for which ensuring information security is vital in information systems.

On belief of experts of Kaspersky Lab, the problem of ensuring information security has to be solved systemically. It means that various means of protection (hardware, program, physical, organizational, etc.) have to be applied at the same time and under the centralized management. At the same time components of system have to "know" about existence of each other, interact and provide protection both from external, and from internal threats.

Today there is a big arsenal of methods for ensuring information security:
- means of identification and authentication of users (so-called complex 3A);
- means of enciphering of the information which is stored on computers and transferred on networks;
 -firewalls;
 -virtual private networks;
 -means of the content filtration;
 -instruments for integrity contents disks check;
 -means of antivirus protection;
 -systems of detection of vulnerabilities of networks and analyzers of the network attacks.

Each of the transferred funds can be used as independently, and in integration with others. It does possible creation of information protection systems for the networks of any complexity and a configuration which isn't depending on the used platforms.