

Basic Concepts of Information Security

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Abstract: *By Information Security (AX), we mean information users and owners of information that is accidentally or unintentionally of a natural or artificial nature, causing undue harm to information subjects, including those that support infrastructure. we understand that information is protected. Information security is a set of measures aimed at ensuring the security of information.*

Keywords: Information security, Risk, information security, concept

INTRODUCTION

1. Information security. The need to ensure information security.
2. Basis and classification of existing risks to information.
3. Risks to data in information systems.
4. Basic concepts of information security and its classification.

The concept of information security

Information security is a state of protection of the interests of the individual, society and the state in the field of information

By information security (AX) we mean information that is protected from accidental or unintended natural or man-made influences, which can cause undue harm to information subjects, including information users and owners who support the infrastructure. we understand.

Information security is a set of measures aimed at ensuring the security of information.

METHODS

The concept of risk

The development of computers and information technology has been a big explosion. Until now, no new technology has entered human life at such a rapid pace. Computer technology offers great potential in areas such as genetic engineering, the universe, and artificial intelligence. But there are other disadvantages of computer technology: they are used in the development of weapons of mass destruction, biological and chemical weapons. Computer technology is also used in financial transactions. Computer systems and networks are often the victims of malicious, malicious individuals. In addition to such deliberate threats, unintentional actions (mistakes) can also lead to the loss or distortion of relevant information¹.

Therefore, in parallel with the development of computer technology, information security is also developing¹.

Risk consists of two parts¹:

1. probability
2. potential damage

Today's information security challenges are aimed at minimizing the risk of future threats. Due to the uncertainty of future damage, it is very expensive to provide complete security (i.e., close to zero damage).

¹ Seymour Bosworth, Michel E. Kabay, Eric Whyne. Computer security handbook. Wiley.2014.

Therefore, risk managers try to optimize the allocation of resources by minimizing the cost of security tools. This process is commonly referred to as risk management.

Safety is defined as a safe, protected state from damage due to various attacks and accidents.

Risk refers to the probability of injury or loss².

Risk management consists of 3 stages:

1. Identify potential risks
2. Select and apply risk minimization measures
3. In order to verify the above 2 steps, implement the risk in the experiment and assess the risk loss

Information, concepts of information protection

The Law of the Republic of Uzbekistan No. 439-II of December 12, 2002 "On the Principles and Guarantees of Freedom of Information" contains the following definitions of information and its types:

information - information about persons, objects, facts, events, happenings and processes, regardless of their sources and form of presentation;

information protection - measures to prevent threats to information security and eliminate their consequences;

mass media - documented information, printed, audio, audiovisual and other messages and materials intended for an unlimited number of persons;

Documented information - information recorded in a physical object with identification details;

Confidential information - documented information, the use of which is restricted by law. This definition is a measure of implementation of the resolution of the Cabinet of Ministers of the Republic of Uzbekistan from July 8, 2011 of No. PP-1572 "About additional measures for protection of national information resources". Resolution No. 296 of November 7, 2011 "On Measures" reads as follows:

Confidential information - documented information, the use of which is limited in accordance with the legislation of the Republic of Uzbekistan, does not contain information related to state secrets.

Confidential axb orot - documented information, the use of which is limited by law⁴.

Information about the environment, which is the object of storage, modification, transmission and use for certain purposes, can be understood in the broadest sense as information. According to this concept, a person is under the influence of a constantly changing field of information that affects his lifestyle and actions. Information may be political, military, economic, scientific, technical, or commercial, and may be confidential, confidential, or non-confidential.

Article 1 of the Law of the Republic of Uzbekistan No. 848-XII of May 7, 1993 "On Protection of State Secrets" ⁵ defines the concept of state secrets:

² Seymour Bosworth, Michel E. Kabay, Eric Whyne. Computer security handbook. Wiley.2014.

³ Bulletin of the Oliy Majlis of the Republic of Uzbekistan. - T., 2003. - №1. - 2-m.

⁴Information security in the field of communication and information: Terms and definitions. Network standard: TSt 45-010: 2010.

⁵ Bulletin of the Supreme Council of the Republic of Uzbekistan. - T., 1993. - №5. - 232-m.

"State secrets of the Republic of Uzbekistan are of special importance, top secret and confidential military, political, economic, scientific and technical and other information protected by the state and limited by special lists."

Article 3 of this law lists the categories of state secrets:

State secrets of the Republic of Uzbekistan - state, military and service secrets.

Information is a state secret, the disclosure of which may adversely affect the quality of the military and economic capabilities of the republic or have other serious consequences for the defense capabilities, national security, economic and political interests of the Republic of Uzbekistan.

The disclosure of information of a military nature, which could have serious consequences for the defense capabilities, state security and the Armed Forces of the Republic of Uzbekistan, constitutes a military secret.

Information in the field of science, technology, production and management, the disclosure of which may harm the interests of the Republic of Uzbekistan, is a service secret. " 3. The concept of information security, a description of its founders. Information security is the protection of information and the infrastructure that supports it from accidental or intentional influences of a natural or artificial nature. Such impacts can cause serious damage to information relationships, including information owners, information users, and the infrastructure that supports information protection.

The Law of the Republic of Uzbekistan "On Principles and Guarantees of Freedom of Information" No. 439-II of December 12, 2002 defines information security as information security, which means the protection of the interests of individuals, society and the state in the field of information. . In the field of information, the interests of the individual are reflected in the exercise of the constitutional rights of citizens to use information, engage in activities not prohibited by law and use information in physical, spiritual and intellectual development, protection of personal security. In the field of information, the interests of society are reflected in the interests of the individual in this area, the strengthening of democracy, the building of a social state governed by the rule of law, the promotion of social cohesion. State interests in the field of information include the creation of conditions for the development of national information infrastructure, the implementation of constitutional rights and freedoms of individuals and citizens in the field of access to information, the use of information to ensure territorial integrity, sovereignty and stability of Uzbekistan, political, economic and social stability. and the rule of law is reflected in the strict implementation of the order, the development of international cooperation of mutual equality and mutual interest.

Information security is a multifaceted field of activity, and only a systematic, integrated approach can bring success. Legal, administrative, procedural and software measures will be taken to solve this problem.

Today, there are three main principles that ensure information security: - data integrity - protection from corruption, which leads to the loss of information, as well as the creation or destruction of data without copyright;

- confidentiality of information. Determines the status of information and its carrier and prevents unauthorized access to information or unauthorized documentation (copying); - access to information by all users with copyright.

It should be noted that some areas of activity (e.g. nk and financial institutions, information networks, public administration systems, defense and special structures), depending on the importance and nature of the issues addressed in them, require high requirements for the reliability of their information systems and special security measures. The role of information security in the national security system. In addition to addressing the issue of building civil society in Uzbekistan as an informed society as a result of the growing role of information resources and technologies in the development of the individual, society and the state in the XXI century, the following factors determine the leading role of information security in national security:

- national interests, their aggression and their protection from these aggressions are represented and realized through the field of information and information;

- human and his rights, information and information systems and their possession;

- these are not only the main objects of information security, but also the main elements of all security objects in the field of security;

- National security issues can be addressed through the use of the information approach as the main scientific and practical method;

- The problem of national security has a distinctive information character.

The information security system closely links the state's information policy with the state policy on national security in the country. At the same time, the information security system integrates the main components of public policy into a single whole. This determines the role of information security and its position in the national security system of the country. The state

information policy is a set of goals that reflect the national interests of Uzbekistan in the field of information, the strategic directions of their achievement and the systems of their implementation. At the same time, the state information policy is a key component of the country's foreign and domestic policy and covers all aspects of society. The modern concept of information security refers to a set of formal views on the goals, objectives, principles and key areas of information security.

RESULTS

The following are the main components and aspects of information security:

- protection of information (in the sense of protection of personal data, state and official secrets and other types of restricted information);
- computer security or data security - a set of hardware and software that ensures the storage, access and confidentiality of data in computer networks, measures to protect against unauthorized access to information;
- protection of information and supporting infrastructure from accidental or intentional influences of a natural or artificial nature that may harm the owners or users of information and the infrastructure that supports it;
- protection of the requirements of citizens, individual groups and social strata, in general, for the quality of information necessary for the life, education and development of the population. Information security is a set of measures aimed at ensuring important aspects of information security (data integrity, access and, where necessary, the confidentiality of information and its resources used in data entry, storage, processing and transmission).

DISCUSSION

The disclosure of information of a military nature, which could have serious consequences for the defense capabilities, state security and the Armed Forces of the Republic of Uzbekistan, constitutes a military secret.

Information in the field of science, technology, production and management, the disclosure of which may harm the interests of the Republic of Uzbekistan, is a service secret. " 3. The concept of information security, a description of its founders. Information security is the protection of information and the infrastructure that supports it from accidental or intentional influences of a natural or artificial nature. Such impacts can cause serious damage to information relationships, including information owners, information users, and the infrastructure that supports information protection.

CONCLUSION

The information security system closely links the state's information policy with the state policy on national security in the country. At the same time, the information security system integrates the main components of public policy into a single whole. This determines the role of information security and its position in the national security system of the country. The state information policy is a set of goals that reflect the national interests of Uzbekistan in the field of information, the strategic directions of their achievement and the systems of their implementation. At the same time, the state information policy is a key component of the country's foreign and domestic policy and covers all aspects of society. The modern concept of information security refers to a set of formal views on the goals, objectives, principles and key areas of information security.

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