



## TECHNOLOGICAL METHODS OF ENSURING INFORMATION SECURITY IN TECHNICAL SYSTEMS

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### ABSTRACT

*Information security today raises many questions and concerns around the world. Information security is simply called InfoSec, it is the practice of protecting information from unauthorized access, use. Information security a system must be developed to protect against disclosure, tampering, alteration, review, inspection, recording or destruction. It is a general term that can be regardless of the form in which the data is used. (e.g. electronic, physical data, with knowledge of the data). security we make sure that our information is protected, as well as the security of our information and the value of our organizations has been preserved. But this is not the only explanation given by experts, information security is becoming a lifesaver for organizations around the world. So people in this field can be considered and computer system programmers. Excellent knowledge of computer systems is required. The impact of security incidents that can lead to data loss or leaks should not be underestimated. Computer information storage system personal information is a waste of time and the spread of viruses. We should not think that security incidents are like this and what happens to other computers does not affect us. We must take responsibility for managing your information. Stay informed about security threats and keep ourselves and organizations up to date with the latest knowledge and technology. If you are in doubt, consult with experts and consultants and turn on the security mode of information protection. Keep a list of contacts for support, e.g. public services, in support of applications, several data protection programs are installed.*

### Introduction

Information security is of great importance and interest to everyone in the technology world today. The methods of ensuring information security in the Republic of Uzbekistan are



well developed by information security specialists. When we mean information security, You are a mobile phone or PC user, so information security is of the utmost importance and Information security is a priority in our daily life and in the fields of IT technologies. Studying information security covers a wide range of concepts and topics that every IT professional needs. Have or have some background in information security knowledge and skills It is a must for everyone involved in the field of IT technologies. For example, Cyber Security Analyst, Forensics analyst, network administrators, system engineers, software developers, and many other industries need to protect information systems. Lack of knowledge about it the critical area of information security will be more likely to develop applications that are insecure or not designed and secure and easily accessible networks for information dissemination and technical attacks on information, hence information security knowledge is becoming very important in our daily life. Regardless of your career choice, you need to educate yourself about information security in IT technology.

### **Why should network or systems be secured?**

System and network technology is a key factor in information technology for various applications. Security is critical to networks and applications. Although network security is an important requirement for many there is a significant lack of easily implemented security methods to provide in developing networks maximum security will have to be ensured. There is a "communication gap" between security technology developers and acts as a basic and reliable system for network developers. Network design is a well-established process and is based on Open it is created based on the system interface model. The system interface model has several advantages when designing networks. A program to ensure modularity, flexibility, ease of use and standardization of network protocols and two-level information security has been established. Different protocols layers can be easily combined to create stacks that allow for modular development. Their implementation individual layers can then be changed without any other adjustments, which makes it flexible and creates opportunities for development. Unlike network design, secure network design is not a well-developed process. No network the methodology of managing the complexity of security requirements is a very complex technological process. Secure network designs do not include and if it does not have the same advantages as the network design, it will cause problems in the protection of information in the system. When considering network security in an organization, it should asserts that the entire network is secure and able to offer the required security. Network security is not only concerns the security of the computers at each end of the communication chain. When transferring data the communication channel should not be vulnerable to attack. A potential hacker can target communication, retrieve the system data, decrypt it, and re-enter the error message. Network protection is the same important processes such as ensuring the security of computers and encrypting messages. In developing a secure network, the following should be taken into account:

\* Access - authorized users are provided with means of communication to and from a particular network. The network will send a password to this user (via e-mail, phone number, network user account and other methods).

\* Confidentiality - Information on the network must remain confidential to trusted employees or users. It is necessary to store login information and attach permissions to system security. Information security is ensured in the system.

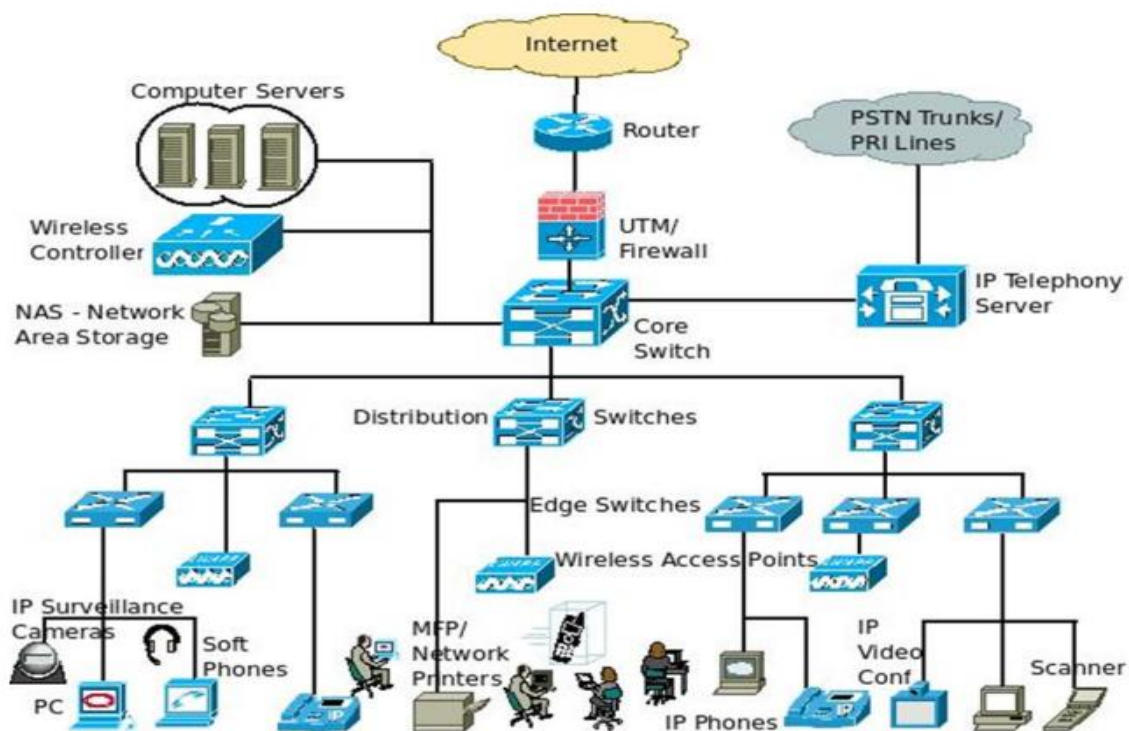
\* Authentication - Make sure network users are who they say they are. All types of information entered in these processes are secured and security is constantly updated. This ensures that the database is protected in the memory of the attached technical system.

\* Integrity - Ensure that the message has not been altered during reading and is protected during transmission. This allows you to track the impact of changes made to the network error database.

\* Non-repudiation - make sure that the user does not deny that they have used the network. Switch to two-step login technology when logging in, which ensures that no one but you can log in on your behalf.

### Limitation of data download and distribution, reading service in the technical system

A denial of service is an attack in which a system that receives too many requests cannot return a connection is to eliminate The system then consumes resources waiting for the information token signal to expire. In the end, the system cannot respond without servicing other requests. No matter how attractive your site looks, appearance alone is not enough to generate sales. Rather than a system entrusting your website to inexperienced service providers who may not have complete webmaster skills. Without a basic knowledge of information security, a webmaster or web developer can program and create a website that is easy for design users to access.



Picture 1. Information security management and database protection in the system

### Research and approaches to ensuring information security in the system



Database engineers are responsible for managing our database servers in the organization, in the system databases are used to store our valuable information in the organization's database. There is a growing body of evidence descriptor-driven machines provide an excellent basis for building penetration-resistant operating systems. Although even with such aids, it is clear that care must be taken in implementation security should be ensured based on the operating system. Information security is hardly a new concept. Such is the need to protect valuable data it has been protected in various ways since ancient times like mankind. Whether it is the location of the data area, the production technology as a weapon and therefore needed protection. Information today security is often understood as the protection or preservation of four key aspects of data: availability, integrity, authenticity and confidentiality. Availability: Includes the technical processes of access to information for a specific purpose. Integrity: Ensures completeness, integrity and readability of data and data immutability and in the main case, the security of the information in the database is ensured.

## Conclusion

Many experts have given many ideas about the main function of database administrator, one of them is data management, with all storage references interpreted by descriptors, can be more efficient various parts of the operating system are addressed for selected permissions (read, download, write, execute, etc.). In the system may be part of the operating system that deals with real resources (memory, peripherals, file space, etc.). Localized and secured as needed to ensure system security. Finally, descriptor-based (virtual) machines enabling and thus facilitating access to the user's address space in a secure manner implementation and application of separate controls for in-process communication and reading (data or programs), writing, and management are considered. In the system, however, some organizations define other functions for the Data Administrator, and the Database Administrator is responsible for serving as a custodian. it is ensured that the company's data is saved. The main condition for detecting violations is when audit mechanisms are enabled to record the system clear evidence of events, legitimate activity, and data loss will appear in the audit trail. For this reason large volume of audit data, both in a number of audit records and in the number of system functions (i.e. fields that describe audit records), efficient and intelligent data analysis tools are required to identify the data and the behavior of the system is constantly monitored.

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