HISTORY OF THE DEVELOPMENT OF TECHNICAL DEVICES AND THE DEVELOPMENT OF INFORMATION TRANSMISSION

Shukurov Shoxrux Abdulazizovich
Public safety University of the Republic of Uzbekistan, teacher

H.U.Murodullayev
Public safety University of the Republic of Uzbekistan, cadet

Abstract: this article discusses technical security tools, their types and applications, forms of information transmission, wired and wireless views of the information transmission system and their use.
Key words: technical security devices, information transmission, wired systems, wireless systems, receiver, radio signal, Wi-Fi protocols.

In the era of globalization, the demand for security is increasing. Technical security devices are developing to the extent that they can meet the security requirements. Speaking of these types of tools, let's first find out what they are:

Technical security means are a set of devices used in the system of protection of objects in order to increase the reliability of object security, to create conditions for guards and squads to perform their duties. Technical protection means are used together with military engineering structures and barriers

Technical protection means are divided into several types based on their function and purpose:
• security and fire alarm systems;
• security video surveillance systems;
• access control and management systems;
• perimeter security systems;
• security lighting systems;
• information protection systems.

The above types of technical security tools are still being used in a wide scope in order to ensure safety. In particular, these technical security tools are effectively used in the protection of classified objects, penal institutions, military facilities and warehouses, constructions with communications, private housing and private property.

One example of the reasons why technical security devices become the main means of security and security activities is their accurate and reliable operation, the wide range of information transmission possibilities, as well as many other functions. It is enough to pay attention to how much the capabilities of the information transfer function are growing to see that the capabilities of technical security tools are increasing year by year. From the classical information transmission system, modern information transmission can be carried out through the Internet

and Wi-Fi network is one of the great achievements. Below we can see the general description, advantages and disadvantages of information transmission in detail:

Analog - monitors the state of one or more signal circuits by measuring the current consumed on the control panel in analog security systems. When the detector is connected to the electrical circuit, the resistance of the coil changes and the control panel goes into alarm mode. The disadvantage of the analog security system is that it is difficult to determine which sensor from the entire circuit is activated, because the sensors have a general effect on the resistance of the circuit.

Addressable - Addressable security systems have a complex architecture. The system is controlled by a main console or computer. Since each detector has its own address during the operation of the addressable security system, the operator can easily identify which sensor has been activated and take immediate action.

Wireless - in them, security sensors transmit information to a receiving device via a radio signal.

Along with the achievements in research and other analytical work in the information transmission system, there are also some shortcomings:

There are many ways to suppress the radio signal with special "noise" (and sometimes this happens from ordinary household appliances).

The fact that it is possible to continuously monitor all sensors by the system with the information received from the receiving device.

Via Wi-Fi protocols - as in the previous version, it is also used for remote operation, direct notification of the user. It is carried out using a special resource on the Internet (web page, portal) or (most often) mobile application, programs (IOS, Android).

The level of protection against certain obstacles and cyber-attacks is considered to be low when the transmitted information in the above technical protection means is sent to the recipient.

Wired systems are more reliable than wireless systems in this regard, but they are not always supported. The tactical technical characteristics of the place do not allow this.

Wireless systems are usually used in situations where there is no physical opportunity to run cables. Wired systems are also widely used today. As for its development history:

Late 1990s early 2000s. Wireless security systems are becoming more and more popular.

In the early 2000s, the method of transmitting signals from security systems through GSM networks became widespread.

In the early 2010s, the most advanced complexes received the possibility of integration with new technologies and remote access and management via the Internet.

Nowadays, attention to public safety and order in our country is higher than ever. The use of technical protection means is very effective in order for law enforcement agencies to fully cover all areas of our country in order to ensure public safety and fight against crimes. When analyzing the information transmission system, it is appropriate to pay attention to the development of the wireless information transmission system as well as the use of the wired information transmission system. Fighting against the shortcomings of the wireless information transmission system would have had a positive effect on the development of the industry. Analyzing the information transmission system of protected objects, all types of information exchange are mainly carried out in wired networks. But in the age of development and development, the range of possibilities of wireless systems differs sharply from the previous ones. Therefore, increasing the security level of wireless communication channels and information systems and introducing them to the military sector remains one of the main tasks.

References:

1. Technical security tools: glossary of basic terms and definitions / VNIIPO "Security" research center of the Ministry of Internal Affairs of the Russian Federation. - M., 1998.

2. Protection of objects using technical protection means.
// Decree of the President of the Russian Federation dated November 10, 2007 No. 1495: On approval of the general military regulations of the Armed Forces of the Russian Federation. - 2007 year.

3. List of types of technical security equipment used to provide services within the framework of the design of facilities, installation of technical security devices and maintenance of facilities and protection of property: Government of the Russian Federation, 2011
Approved by the decision of June 23. No. 498.

4. Technical protection means // R 78.36.032-2013. Installation of engineering and technical equipment and technical protection of facilities and apartments centrally guarded by private security units.
2013. - Part 1. Methodological recommendations.