

MEANING OF TELECOMMUNICATION TECHNOLOGY

Kuzmenko A.V., *kuzmenkoalina@gmail.com*

*Institute of Special Communication and Information Protection of the National
Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”*

Main goal: The modern world is impossible without telecommunication technologies that erase state borders and the distance between people make an affordable mobile and video communication and allow you to solve many problems in the field of management, education, commerce. Each person faces them daily, sharing phone calls, checking mail or buying goods in online stores.

Each generation is intended to develop new technical means, improve the accounting, processing, transmission and storage system. The first telecommunications means recognized telegraph, telephone, teletype, radio receiver. The middle of the XIX century is marked by mass use of satellite communications, computing, computer network. As a result, this has positively affected the development of new telecommunication technologies.

Definition and concept of telecommunication technologies

The overall concept of information and communication technologies includes a combination of methods, processes and devices that allow you to obtain, collect, accumulate, store, process and transmit information encoded in digital form or existing in analog form.

In a narrower sense, telecommunication technologies are understood as a set of software and hardware, allowing to communicate without the use of wires and transmit information packages that also include audio and video information.

Types of telecommunication technologies

Telecommunication technologies can be considered as services provided by providers of various levels.

According to this principle, the following types of telecommunication technologies can be distinguished:

- telephone communication, modern telephone connection makes it easy to switch from analog standard on digital, connect to the Internet city phones and connect analog and mobile devices to one network;
- radio communication, which today has become a cellular communication, the phone, moving within the network, turns out to be in the range of various transmitting devices;
- satellite communications, which is used by providers to create mobile communication systems and for government communication systems;
- the Internet is the most common type of telecommunication technologies in which connecting to the network can be carried out both wired and wireless.

Using telecommunication technology

Telecommunication technologies today are mainly used to organize communication systems.

But the communication systems themselves are applied, with the help of these technologies, you can achieve significantly more important goals, including:

- creating distance learning systems;
- provision of inexpensive voice telephone;
- creation of information systems of enterprises and combining them into a complex that allows optimizing management;
- building banking networks;
- conducting electronic auctions and tenders to provide public procurement;
- communication of remote subjects;
- for online trading;
- Remote control in state and private sphere.

The range of opportunities for the use of telecommunication technologies is expanding every day. It is difficult to say that it will be that it is proposed tomorrow in this area to make a link is more accessible, and production processes are easier.

Telecommunication technologies in education

Our life proceeds in the information society, so since childhood it should be led by new telecommunication technologies.

In the educational system, they are used for distance learning, virtual communication, self-education, obtaining the necessary information.

The developed federal target program, aimed at developing an educational information environment, became a prerequisite for introducing it in the field of education and science.

Telecommunication technologies and services for banking networks

The policy of national telecommunication companies, economic situation and geographical location are factors affecting the choice of technology to transfer information in the banking system.

Modern banking communications allow you to conduct interbank payments with an electronic signature, encryption of the document.

The transition of telecommunication systems for private satellite channels will upgrade the banking system. In this case, it is beneficial to apply virtual private networks that rented public networks.

Main outcomes: The emergence of new science - telematics made it possible to use the ability to transmit information data at a distance. The basis of science is the system that combines telecommunications and informatics. This property significantly increased the territory of communication participants.

A characteristic feature of information technology is that a single product is used in the working process - information. The process of intellectual processing contributes to the collection, storage and dissemination of information data.

References

1. P. J. Louis. Telecommunications Internetworking / P. J. Louis., 2000. 560 c.
2. Tom Standage. The Victorian Internet: The Remarkable Story of the Telegraph and the Nineteenth Century's On-line Pioneers / Tom Standage., 2014. 256 c.

Language adviser: *Sokyrskya O.S., PhD in Philology, senior lecturer, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"*