

SECTION 15. INFORMATION TECHNOLOGIES AND SYSTEMS

Andrushchak Ihor 

Doctor of Technology, professor in department of software engineering
Lutsk National technical university, Ukraine

ANALYSIS OF CYBER SECURITY ASPECTS IN COMPUTER NETWORKS

At the beginning of the rapid development of computer networks, security was not particularly relevant and in demand, this was due to the fact that there was a small permanent circle of users on the Internet. Today, it can be said that the important role of cyber security is becoming especially important due to the fact that modern computer networks and the Internet capture all spheres of life.

It should be noted that the actual minimum security requirements include the installation of a "firewall" at your workplace, which will be used to filter incoming data packets. It is important to unambiguously apply the method of safe hiding "cryptography", precisely in order to carefully protect files, authentication procedures for our access to data (a common way is to enter an unambiguous authentication code, biometric checks). Modern new operating systems are equipped with both verification and scanning algorithms, which pass (filter) various types of information, and also allow to ensure the basis of data security [1].

Cyber security, or as it is also called computer security, is a mixture of a set of practices and methods of protection not only against attacks by attackers for computers, but also for mobile devices, electronic systems, services, networks and data. We meet cyber security almost everywhere in different industries and in different directions, for example, in all business areas, in modern mobile technologies and software products. I would also like to highlight some equally important aspects :

- a safe network is the action of protecting computer networks from various situations, malicious programs and threats;

- application security is the protection of devices against virus threats that attackers can hide in applications. An infected program can give a criminal access to all the computer data it is supposed to protect. Long before the program appears in public access, its security is ensured during creation [2];

- information security means ensuring integrity and codification both during storage and, of course, during its transmission;

- operational security is the process of identifying and handling critical information assets;

- disaster recovery is a method of restoring the functionality of various infrastructure and access to it, responding to various actions of fraudsters that can disrupt the operation of our systems or lead to the loss of important data arising from human error.

- urgent recovery is a set of many rules that describe how a certain organization will deal with the final consequences of attacks and restore lost data in the future;

- awareness is the education of the right users of the Internet. This installation will be able not only to reduce the pressure of the most unpredictable factor in the field of cyber security - human. After all, the most protected device can fall into the hands of a fraudster due to certain silly mistakes [3].

It is necessary to highlight various types of available cyber security measures in order to save your data and increase security in the future, the easiest thing we can do is to set the most reliable passwords and periodically update them, as well as update the software product.

Of course, you can also use a password manager tool, such as LastPass, Sticky Password, to further monitor the flow of information. These programs will directly help us use unique, secure passwords to log in to the various sites and programs we want. All this will help us to provide the highest level of security by identifying passwords, which will make it more difficult to try to get information. Attackers mainly want to gain access to the network through our old credentials, so you should always delete unused accounts. Always try to keep your software always up-to-date, then your data will always be safe [4].

It should be noted that today, due to the high influence of the Internet on our everyday life, cyber security has become one of the most sought-after needs in the modern world, because cyber security threats are a serious problem of society in general and countries of the world. Not only the state should disseminate various information among people, but also the citizens themselves. It is important to timely update all programs that protect our system (antivirus), so that the necessary network security settings and the system itself are under special protection from external viruses.

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