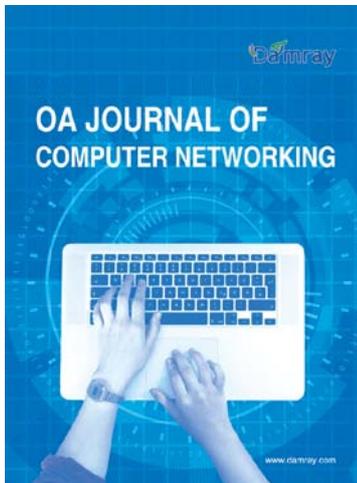


The Influencing Factors and Preventive Measures of Computer Network Security Technology

Juan Zhang*, Han Yang

Chengdu University of Information Technology, Chengdu, Sichuan Province, China.



Abstract

Computer network security technology, as its name implies, is to achieve effective protection through corresponding technical means, to avoid attacks on its internal systems, and to ensure the integrity of user information. In the current process of computer network security technology becoming more and more mature, the form of its security risks has also undergone tremendous changes. Therefore, it is necessary to continuously innovate and optimize security technology to solve the security problems faced. This article discusses the influencing factors of computer network security technology, and proposes corresponding solutions, as follows.

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1. The impact of computer network security technology factors

1.1. Virus attack and hacker invasion

In the process of computer use, often due to virus attacks lead to the gradual decline of its system operation, paralysis, data loss and a series of problems, and because it has the characteristics of concealment, rapid propagation, will be hidden in the system, once triggered at the right time, it will be a large-scale replication and infestation of the system, which will not only affect the user's use, and will seriously cause immeasurable This will not only affect users' usage, but also cause immeasurable economic loss to users. At the same time, computer network brings convenience to people, but also brings opportunities for criminals to take advantage of, hackers will attack the user's computer in different ways, decipher its defense system, modify the program by remote control, copy and steal the confidential files inside the user,

resulting in the leakage of important data and information, which brings a greater security risk to the user [1].

1.2. System vulnerability and phishing

System vulnerability as the main factor affecting the security of computer networks, mainly due to the user in the installation of the system failed to download in the regular website, resulting in the installation of the system for the pirated version, and itself there are more loopholes, has a greater security risks, and if not timely processing, will gradually form a big accident from small problems, will not only affect the normal use of users, but also provide hackers invasion corresponding opportunities, leading to a gradual decline in its security. At the same time, in the background of the current network information era, users will carry out shopping, remittance, transmission of information and other operations through the network, although it can play an effective role in enhancing efficiency, but if the operation process is not standardized enough, it is more likely to be infringed by phishing software, which will introduce the user into the operation by means of a fake website, in the process of stealing the user's information, stealing The user's property is stolen in the process, or the customer's information is used to forge an identity for fraud, causing a large economic and property loss to the user [2].

1.3. Improper operation of users

The current use of computers is becoming more and more widespread, and the amount of use is also rising sharply, but according to the survey, most users have not received systematic education, lack of awareness of the corresponding network methods, often in the use of the process of irregularities, which also directly affects the security of the computer. And some users often ignore the application of antivirus software and firewall due to insufficient technical ability, and fail to start antivirus on the computer in time, which provides an opportunity for virus invasion. At the same time in setting the password often for the convenience of memory, the password set is relatively simple, hackers can simply use a simple program to crack it, access to the user's private information. Second, the current process of using the computer, often encounter advertising in the form of pop-up windows in the user's computer screen, in order to attract users, due to the user's low awareness of prevention, will directly click on the pop-up window to enter, if the pop-up window contains a virus, it will also cause greater losses to the user.

2. The effective strategy to enhance the computer network security technology

2.1. Firewall and information encryption technology

Firewall, as the name implies, is to establish a barrier in the computer network, so as to isolate the risk of external networks and reduce its impact on the computer system, so as to ensure the security of the user's environment. At the same time, the technical means can not only play an effective role in defense, but also to detect the current problems in the computer network, real-time monitoring, once the problem occurs, will promptly notify the user, so that it can quickly start to deal with the loss to a minimum. Secondly, the firewall has a strong anti-attack ability, its internal procedures will quickly solve some external attacks to avoid its impact on the computer, and will automatically identify the user often used ports, some infrequently used ports will take the automatic closure of the way to prevent external bad factors to access and operation of the computer. In order to maximize the security and stability of the computer network, it is necessary to establish a firewall based on the hardware and software to enhance the defense system [3]. Because of the openness of the network, the security risks also have multiple characteristics. If you want to ensure the security of data information in computer files and avoid problems such as cracking and copying, you can use data encryption and technology to provide protection for data transmission and storage, so as to ensure the integrity of data information. Users can choose different key technology according to their needs.

2.2. Adopt computer backup and recovery technology

Because the computer system will show the phenomenon of instability when it is attacked by the external lawlessness, and in the case of insufficient prevention level, it may lead to the loss of internal data information, which will cause inconvenience to the user and also produce certain losses. In order to avoid this problem, users can take backup technology to make copies of confidential information in a timely manner, and in the case of data loss, use recovery technology to retrieve it in a timely manner so as to minimize losses. The technical means also has the effect of monitoring, can find the computer system in the implementation of the operation, to play an effective role in safeguarding. However, due to the influence of various objective and subjective factors, the security devices in the computer system can not be effectively detected, coupled with viruses and programs are more hidden, the application of this technical means can play an effective role in circumvention [4-7].

2.3. Improve the security awareness of users

The standardization of the user's use of the computer will directly affect its security, where the user's awareness of protection should be raised first, so that they can understand the role of each degree of defense protection. First of all, it is necessary to install antivirus software in regular places, and regularly antivirus the computer, so as to minimize the incidence of security problems. At the same time, we need to regulate our own operating behavior, do not click on unknown push ads and Web sites, when entering private information on the site, we should take the way not to remember the password, and in setting the password, try to enhance the difficulty of the password, avoid using some passwords related to personal information, so as not to provide opportunities for criminals, and to change the password in a timely manner, to do the corresponding privacy protection work. Second, when downloading files, antivirus treatment should be carried out in time to ensure its security.

2.4. Create a safe computer network environment

Electricity as a necessary condition in the process of computer use, and electricity is inherently unstable, more susceptible to the impact of various external subjective and objective factors, such as lightning, heavy rain, earthquakes, etc., because these factors are unavoidable, once they occur will directly affect the stability of the operation of the circuit transmission process. And in thunderstorm weather, it may pass between the network cable will be high voltage electricity to the computer, resulting in a computer short circuit or paralysis, and the strong magnetic field it generates will also cause some damage to the hard disk. At the same time, the use of computers need to be in a ventilated, dry environment, if the use of high ambient temperature, humidity, then it will gradually affect the computer hardware, eventually leading to computer damage. Therefore, it is also necessary to create good conditions for the use of computers, do a good job of anti-magnetic, lightning, moisture-proof equipment installation, so as to avoid the adverse effects of environmental factors on it. Secondly, it is also necessary to regularly repair the computer hardware equipment, replace the parts that are easy to wear and tear, and once the problem is found, it needs to be solved in time to avoid causing greater safety accidents [8-10].

3. Conclusion

In summary, in the context of rapid development of science and technology, computer networks have been widely used and have played an effective role in promoting the development of all walks of life. But because of the complexity of the network environment, it is often abused by lawbreakers, which causes greater losses to users, and seriously affects the stability of society. Therefore it is necessary to take appropriate measures to enhance its network security.

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