International Journal of Science and Engineering Applications
Volume 12-Issue 04, 114 – 116, 2023, ISSN:- 2319 - 7560
DOI: 10.7753/IJSEA1204.1038

Research on Synchronous Cooperation between Computer Information Technology and Network Security Application

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Abstract:The development and application of computer information technology is based on the major premise of the network security environment. To achieve the sustainable development of computer information technology, it is necessary to establish a safe and stable network environment. The advancement and development of network security technology is driven by computers. Information technology is developed based on the problems presented in the development process. From this point of view, there is a complementary relationship between the development of computer information technology and network security. This article is a research on the synchronization and coordination between the development of computer information technology and network security, and aims to promote the development of computer information technology through the establishment of a network security environment.

Keywords: Computer Information Technology, Network Security, Synchronous Cooperation, Big Data

1. INTRODUCTION

Since the network is composed of many nodes with equal computing and communication capabilities and sizes, it belongs to a distributed structure. Computer technology refers to the use of computers to achieve fast and accurate calculation of large amounts of data and information, and the use of the network is becoming more and more extensive. The service provided to people by the network is open. Everyone can use the platform of the network, and everyone can perform the activities they want on this platform, but because of this, the security of the network is not necessary. To guarantee. Especially in recent years, network security accidents have continued to occur, and people's attention to network security has also increased year by year. The security department related to network technology has also issued a series of laws and regulations to prevent it, and computer information technology is used to ensure An important method of network security [1-6].

Because computers have strong information processing capabilities, computer technology is often used in network information processing and other fields. Virtual private network technology is an important technology that can protect network security. It is a private network based on a public network architecture, but due to the lag of network security technology, my country's network security facilities are not sound. The emergence of this phenomenon also hinders the development of computer information technology in our country. If you want to achieve the establishment and soundness of network security facilities, you need to analyze the specific It belongs to Remote access to information and data, through encryption technology, tunnel technology to securely connect different areas of the network. In this paper, the network security technology architecture is divided into three layers: core layer, aggregation layer and access layer. However, compared with developed countries, my country's network security prevention technology is still in its infancy, and the network continues to Development has brought new problems to its security. In response to these new problems, we must continuously improve the level of computer information technology [7-14].

At the core layer of the network, encryption, device security enhancement, physical authentication and routing protocol authentication are used to encrypt and process the data at the computer core layer. However, with the popularization of the World Wide Web, the frequency of cybercrime is gradually increasing, so the application of computer technology in network security has also attracted people's attention. This paper discusses network information processing and security, and computer applications. Virtual private network technology has its own unique characteristics. According to the available data, it can be found that about half of the global enterprises have established the CIO mechanism in the early stage of the enterprise, and with the passage of time and the operation of the mechanism, people have generally recognized the operating mode of the mechanism. However, when collecting and analyzing the data of Chinese enterprises, it was found that nearly three-quarters of the listed companies have established relevant information management institutions, and nearly 70% of the companies with high-level institutions [15-21].

However, although three-quarters of enterprises have established information management institutions, from the perspective of management, the current information management mechanism of Chinese enterprises is still relatively traditional, and the information management mechanism lacks a certain degree of flexibility, and the traditional information management mechanism has been Unable to keep up with the pace of the times, unable to meet the actual development needs of the enterprise, and the coordination of work distribution among the internal departments of the enterprise is weak, and there are serious security loopholes in network information management. In some Western countries with rapid economic development, many countries attach great importance to the construction of national computer information security management [22-24].

2. THE PROPOSED METHODOLOGY

2.1 The Computer Information Technology

The physical security of network hardware requires users to place the network hardware in a safe place away from malicious attackers, and users will not place unknown network devices on the hardware. Technical characteristics of network information processing. Network information processing technology refers to the use of network technology to realize online processing of various information data, such as online collection of data information, real-time processing, network information dissemination and cloud storage of data information, which makes computer information technology impossible to start. In addition, factors that threaten the network security of colleges and universities may also have a certain impact on computer technology, which makes it impossible to guarantee the effectiveness of computer information technology network security maintenance.

In some Western countries with rapid economic development, many countries a The security of data and information is protected by tunnel encryption technology; virtual private network technology also has the characteristics of professionalism. However, compared with our country, many companies pay insufficient attention to the construction of network security management, and the state invests little in this aspect. Relevant organizations have conducted investigations on the construction of network security institutions in my country’s enterprises, and found that the capital investment which is very different from traditional physical links, and uses different connection methods for different nodes. Network software security mainly includes two aspects: data and network login authentication. For this purpose, network authentication protocol and encryption network data technology are designed. Two reasons for mistakes have caused the network to be successfully attacked and destroyed.

2.2 The Network Security Application

The data and information in the facilities and computer network system, due to accidental reasons or malicious destruction, causes damage to the system's software and hardware facilities and data leakage or modification to ensure the stable and reliable operation of The advantages of network information processing technology. Compared with traditional information processing methods, network information processing technology not only has a significant improvement in data processing efficiency, but also can effectively improve the accuracy of data processing.

Broadly speaking, the research field of computer network security is very large. Generally, the system integrity, system authenticity and controllability of the entire network are all aspects of computer network security. At times, it is often because the user authority is set too large, unnecessary server ports are opened, or ordinary users lose account numbers and passwords due to negligence, resulting in unauthorized access and harm to network security.

2.3 The Synchronous Coordination of Computer Information Technology and Network Security

The primary method to improve computer information security management is to strengthen the security awareness which can make the transmission of information data become more accurate and reliable. Preparatory work for the comparative experiment. First of all, network workers and related computer technicians should pay more attention to computer information security when working, and always guard against potential network security risks. At the same time, they should strengthen their own learning and improve their own knowledge and awareness of network security prevention.

For access to untrusted networks, firewall technology sets certain controls. The firewall is often set at the interface between the university network and the external network to prevent the intrusion of illegal data from the external network, thereby maintaining the security of the university network. In order to protect the transmitted files, methods such as data encryption, digital signatures, file integrity verification, and entity identification can be used. Mail can be encrypted when sent, and a secure PC card can also be used to protect its security.

3. CONCLUSIONS

Network security is to ensure that people cannot be disturbed by the outside world while using the network as a platform. The prevention of network security not only involves legal aspects, but also related to usual management and computer information technology. In order to build a safe network environment, we must coordinate the relationship between the three. In this way, the implementation of network security the preventive measures can be more effective. Although our country's research on using computer information technology to ensure network security.

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