Application of Computer Information Management Technology in Network Security

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Abstract. With the continuous development of network information technology, people in our country use mobile phones, computers and other communication equipment will generate a lot of data information, companies want to use this information, they must manage this information. The most commonly used information management technology is computer information management technology, which can not only learn to store information effectively but also analyze information in many ways. Through analysis of the characteristics and development status of computer information management technology, we put forward plans to continuously improve the security of computer information management technology in the application of computer information management technology in information management.

Keywords: Computer, Information Management, Network Security

1. Introduction

Both computer users and computer database users can operate or access the database created by them anytime and anywhere. In addition to the sharing of database technology, computer database technology also has the characteristics of data independence, strong operational flexibility and reasonable control of organized data. Of course, with the development of data information technology, the application of computer database technology is also protected by various high-security software, ensuring the security and reliability of the data in the computer database.

2. Computer information management technology problem analysis

2.1. Network security issues

With the development of the times, information technology has developed well, but some problems
have also appeared, such as network security issues, which are currently the focus of people's attention. In order to give full play to the application value of information management technology, when constructing an information management system based on information management technology, attention should be paid to the establishment of a security system[1]. When dealing with some confidential documents, enterprises must do a good job of data security maintenance and create a secure environment for the development of information management[2]. Therefore, it is necessary to pay attention to the organic integration of information management and information management technology to lay the foundation for social development. Make the information management technology better used in various fields of society.

2.2. The development direction of computer information management technology in information management

With the advent of the Internet era, the application of information management information technology is not limited to data collection and analysis in the field of scientific research and the commercialization trend of information management technology has become more and more obvious[3]. Among them, the information management system based on computer information management technology will simplify a lot of work and guarantee the safety of the use of information management technology to a certain extent.

2.3. Effective processing of basic electronic data information

At present, China's science and technology and economic industry are gradually developing and society has also put forward diversified requirements for information management. It must scientifically and effectively process basic electronic data information and also process video and picture information data, which further improves the application performance of information management technology. In the application process of information management technology, it can effectively encapsulate data, effectively resist the interference of bad information and also avoid information leakage and ensure the safety and integrity of information data. The network routing connection mode is shown as figure 1.

![Network routing connection mode](image)

Figure 1. Network routing connection mode

3. Application model of computer information management technology in network security
3.1. Improve the system of computer information management technology in network security

First of all, we must improve the relevant personnel operation specification system and computer application management system and implement the scope of responsibility and assessment. For example, relevant personnel must strictly regulate the inspection management standards, cycle and other operating steps and requirements in computer information management technology and supervise and inspect the implementation to ensure the timeliness of system problems and the operation of the system. Secondly, open the authority according to the hierarchical system[5]. For the use of the computer, it is necessary to set the person in charge and the power-on and use authority to prevent illegal persons from entering and obtaining information. Install corresponding anti-virus software on the computer, establish a sound anti-virus system, prevent hackers and viruses from invading and ensure the security of the system. Once again, we should not only pay attention to computer software management, but also strengthen the management of computer hardware and equipment and update the computer configuration in time to avoid computer failure. At the same time, fire equipment and other rescue equipment are equipped around the computer room to eliminate potential safety hazards and ensure the safety of computer equipment. Finally, establish a network security incident assessment mechanism, through the three methods of pre-event, mid-event and post-event assessment, promptly discover various types of cyber security problems and timely prevent and deal with risks to reduce the loss and impact of danger. The network security management mechanism is shown in the figure 2.

![Network security management mechanism](image.png)

**Figure 2.** Network security management mechanism

3.2. Enhance the safety awareness of relevant personnel and build a network security communication platform

Create a secure network environment to ensure the information security of people, enterprises and even countries. Specifically, the following points should be achieved: First of all, we should start with the improvement of the thinking of the relevant personnel. Because people's lack of awareness of prevention will provide cyber criminals with an opportunity to steal information and even property...
damage\textsuperscript{[6]}. Therefore, it is necessary to enhance the security awareness of computers and network users, educate them on network security, establish network security awareness of relevant personnel and do well in file information encryption during daily use operations to prevent data theft, tampering or loss. At the same time, increase awareness of anti-fraud, do not trust others, to prevent cheating. Secondly, relevant departments can organize network information security publicity and education organizations to promote network information security methods and awareness raising. Build a network information security communication platform, use network power to communicate and share bad programs, software, etc., help the majority of network users to detect and prevent the invasion of malicious programs and software as soon as possible, promote the prevention and control of Internet viruses and maintain network security. You can also use the communication and sharing platform to release emergency response methods to improve the vulnerability warning and repair capabilities of the entire operating system.

3.3. Adopting advanced network security management technology to create a network security environment

To ensure network security, we must pay attention to the application of related security management technologies. For example, the use of computer firewall technology, information authentication technology and information encryption technology. Among them, the firewall technology is an effective protection barrier formed between the external network and the protection network. By monitoring and limiting the network data flow, the purpose of protecting the internal network information security is achieved. This technology has the characteristics of convenient operation and low price. It is currently the most widely used technology in computers; information authentication technology is divided into three methods: verification information, identity confirmation and digital signature. Modification, destruction or acquisition; the current commonly used information encryption technologies include symmetric key encryption and asymmetric encryption, in which asymmetric encryption is more secure and can prevent information from being acquired by others during transmission and storage. With the advancement of science and technology, many of the network security management technologies currently used are already on the verge of elimination, so relevant departments should pay attention to the innovation of security management technology and constantly update network security technical measures.

4. Conclusion

Under the dual influence of the market economy and economic globalization, enterprises and units are facing huge data, or the collection of market data, the management of the company's own business data, etc., which shows the importance of computer database technology. Therefore, we should pay more attention to the application of computer database technology in enterprise information management, cultivate sensitivity to data and improve the level of information management technology.

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