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The Practice of Computer Network Technology in Electronic Information Engineering

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Abstract

With the arrival of the information age, while promoting the efficient development of social production, it also brings great convenience to people's lives. Based on computer system and network technology, electronic information engineering is of great significance in modern national defense, scientific research and communication. Since the beginning of the 21st century, the integration and development of computer network technology and electronic information engineering has become a trend. At the same time, it has made relevant fields realize the huge advantages of computer network technology in the integration of electronic information engineering. Computer network technology can achieve efficient electronic information dissemination, resource sharing and information processing, and promote the continuous improvement of electronic information engineering, It makes up for the shortcomings of interaction in electronic information engineering, and strengthens the connection between various links. This paper analyzes the practical application of computer network technology in electronic information engineering in detail to promote the continuous progress of computer network technology.

Keywords

Computer network, Network technology, Electronic information engineering, Technical practice

The combination of Internet and computer technology makes people's information dissemination channels more diversified. Electronic information engineering is a comprehensive information system, its construction process to invest a lot of technology, the combination of the two can promote the development of economic society. However, in practical work, people must be soberly aware that the present Chinese electronic information system development status is still relatively backward, and we must constantly use the new technology to improve and improve to meet the new requirements of development.

1. Overview of Electronic Information Engineering

Computer network technology is the result of the development of computer technology. It is combined with communication technology and computer technology to promote the effective transmission of information and realize the rapid collection, sorting and analysis of information. The application of computer network technology in electronic information engineering can significantly improve the efficiency of automatic data transmission, improve work efficiency, shorten the distance between employees, and improve staff communication efficiency. The combination of the two can effectively improve the data security of enterprise automation equipment and prevent economic losses caused by information leakage.

1.1 Definition

Electronic information engineering is a system engineering based on computer network and information collection, processing, equipment maintenance and system construction. The emergence of electronic information engineering provides great convenience for people's production and life. In a word, wired telephone, wireless communication equipment and information network all belong to the category of information engineering [1].

1.2 Main Characteristics of Electronic Information Engineering

Electronic information engineering is a complex system engineering including information processing, analysis, control, etc. The characteristics of electronic information engineering are: (1) multi coverage. In the process of formal implementation, electronic information engineering presents the characteristics of multiple coverage. This is because the main goal of electronic information technology is information. As long as the information is processed and analyzed correctly, the system can know the relevant information and the working status and content of electronic equipment in the shortest time. Electronic information engineering can reasonably screen and synthesize a large number of existing data according to the actual operating conditions, and select the most valuable information from them. In this way, you can get the information you want better. This shows that with the popularization of electronic information engineering, people's access to information has undergone tremendous changes, and the efficiency of information acquisition has been significantly improved. (2) High accuracy features. Electronic information engineering is characterized by its high accuracy in the process of processing information. In this process, electronic information engineering must constantly analyze and verify a large amount of data to meet the instruction requirements of internal systems. In case of data error, the system can automatically correct the data to ensure the high accuracy of the data. In addition, electronic information engineering also combines computer network technology, electronic information technology and other modern technologies to achieve the purpose of information resource sharing and real-time interaction. (3) Efficiency features. The efficiency of electronic information engineering is mainly reflected in the processing of specific data. When processing specific information, it is often necessary to complete the collection, processing and analysis of information according to the instructions of the system and the corresponding equipment to ensure the safety and reliability of information. Generally speaking, this method can quickly process a large amount of data, thus improving the work efficiency of operators. From the practical application, as the hardware facilities of electronic information engineering are still being updated and upgraded, it is necessary to further optimize them to ensure the security and rationality of information data [2].

2. Computer Network Technology

2.1 The Meaning of Computer Network Technology

Based on communication and computer technology, computer network technology is a computer alliance composed of optical fiber, cable and terminal, and a resource sharing platform that can realize worldwide communication. Computer network technology has the advantages of resource sharing, fast transmission and easy management. Electronic information engineering is developed on the basis of computer network technology, and there are two connections between them: (1) Computer network technology has laid a solid foundation for the development of electronic information engineering. Electronic information engineering refers to the technology that provides people with all kinds of information for production and life with wired communication, wireless communication, etc. (2) Electronic information engineering can promote the development of computer network technology. Electronic information engineering brings great convenience to human life. Therefore, to strengthen the information construction, we must strengthen the research on computer network technology.

2.2 The Development Process of Computer Network Technology

So far, computer network technology has gone through several stages, such as remote terminal connection, computer network connection, network interconnection, information superhighway, etc. Among the above technologies, remote terminal connection is an initial stage of the current network technology development. This stage is mainly to realize the connection between the terminal and the host. Users are required to access the host remotely through the terminal to process data reasonably, but cannot manage and store data well. In the process of computer network development, the transformation from a single computer network to multiple networks. In this period, the development and updating of computers will be greatly accelerated.

Under this development trend, the computer network can not only obtain its own information resources, but also browse other network resources, so as to further improve the sharing of information resources and basic interaction requirements, and lay a solid foundation for the future development of computer network technology. The era of computer network interconnection mainly refers to the network system based on the Internet. At this stage, the general computer network must go through a network protocol to meet the network connection needs of various regions. The communication distance of Internet based network system is far greater than that of traditional computer devices. This is because in the process of the development of computer network, through the optimization of computer network technology, it can meet the needs of network access, so as to achieve resource sharing and real-time interaction. Information superhighway refers to the continuous development of computer network technology in today's society, and the computer has changed from low efficiency to high speed in the past, so as to achieve the effective use of information resources. Combined with the current technological development, computer network technology, based on the existing technology, organically combines modern technologies such as information technology and communication technology to make up for the defects of the past technology, so as to achieve greater development space [3].

2.3 Application Advantages of Computer Network Technology

First of all, computer network technology has the advantage of sharing resources. In terms of computer network technology sharing, it mainly refers to taking computer software, hardware and data resources as the object of information sharing. Operators can realize resource sharing, data analysis and other functions through information interaction with computer network technology, so that users can know the world's affairs without leaving their homes. Secondly, it has the advantage of mutual work. This advantage is mainly shown in that if a computer cannot process a large amount of data, it must be realized by other computer equipment. Through the role of network protocols, computer users can work through idle computers on the network to ensure the safety and rationality of data. Finally, it has the advantage of data transmission. Data transmission communication often requires that the main transmission target is between computers, computers and users, to realize the function of data interaction and transmission. At the same time, through real-time processing and analysis of various types of data, the accuracy and security of the computer system are guaranteed.

3. Application of Computer Network Technology in Electronic Information Engineering

3.1 Information transmission

The application of computer network technology to electronic information engineering can interconnect equipment in various regions, provide users with a good application platform, and enable information sharing. In the information age, with the continuous increase of data, people put forward higher requirements for information transmission. In addition, due to the large amount of information, it has a great impact on the quality and speed of information transmission. Applying computer network technology to electronic information engineering can effectively process information data, which is of great significance to enhance data maintenance and improve data transmission efficiency. By using computer network technology, network connection with other cities can be realized to ensure the transmission of information.

3.2 Information maintenance

In actual use, any link will affect the whole system. Especially in the process of enterprise information construction, a perfect information system must be established. The smooth progress of information maintenance needs the support of computer network technology. Therefore, enterprises must ensure that relevant equipment can work properly to minimize information security problems. In practical applications, due to the interference of external factors, network security vulnerabilities, low transmission efficiency and many other factors. Therefore, the application of computer network technology in electronic information engineering can not only effectively improve work efficiency, but also ensure the interests of users [4].

3.3 Information security

The arrival of the information age not only broadens people's access to information, but also is an important way to expand information resources. In addition, computer network technology is a technology that is vulnerable to attacks, and relevant departments should fully combine the reality to verify the security of computer network technology.

Network attacks will not only affect the practical application of the project, but also greatly reduce the credibility and authenticity of information. Therefore, relevant departments must increase the intrusion detection of hackers and formulate corresponding emergency plans. When network security problems occur, relevant departments must take precautions against them at the first time. At present, network anti-virus technology is becoming more and more mature, the most typical of which is network anti-virus software. The system has powerful protection and disinfection and sterilization capabilities, and can dynamically track and clear viruses to ensure computer network security.

3.4 Resource sharing

The introduction of computer network technology into electronic information engineering will help promote the sharing of resources. Computer network technology is based on network protocols for information transmission and sharing. The main part of network protocol is network interface layer and application layer. Network protocol is to collect the information of the system and establish the corresponding hierarchy to ensure that the transmission control protocol is not damaged in the system. The management personnel take computer network information technology as the basic content, use their professional theoretical knowledge, and ensure the accuracy and standardization of information according to the content of the agreement. After the completion of network construction, it is necessary to ensure the smooth transmission of information and strengthen the resource sharing among users to achieve the purpose of technical exchange. Managers can speed up the transmission of resource data between devices by using protocols to connect with computer networks, and send messages through electronic devices based on protocol standards. For example, the computer monitors the road camera, captures the image information with the network, and transmits the image to the transportation department in real time, so that the department can grasp the road situation in time.

3.5 Equipment development

Computer network technology plays an important role in equipment development. The application of computer network technology to electronic information engineering can well solve the problem of base station construction. Therefore, relevant departments must always carry out directional data transmission around network protocols to create conditions for the development of equipment. Computer network technology is a new stage in the development of electronic information engineering. Enterprises should use information sharing, storage and other technologies to develop electronic products to make people's lives more intelligent. Smart home products, such as smart TVs, smart refrigerators, smart washing machines, etc., are the embodiment of the application of computer network technology to electronic information engineering [5].

In order to ensure the formulation and improvement of standard protocols, the personnel of electronic information engineering enterprises must master the latest network technology and use modern technology to ensure the stability of communication lines. In addition, when developing new communication equipment, we should give full play to the advantages of computer network technology to ensure the effectiveness of communication. For example, electronic information engineering enterprises can provide special VPN encryption services and special internal network services for some large companies. Enterprises can realize various work instructions through LAN. At the same time, electronic information engineering enterprises can also expand their user base. In the paperless office era, many scientific research, public institutions, government agencies, schools and other units are using the Internet for office work. Therefore, in this context, electronic information engineering enterprises can provide information services for enterprises through Internet technology, thus promoting the rapid development of enterprises.

3.6 Information processing application

China's information technology has developed rapidly and is widely used in electronic information engineering, both in scale and quantity. In this context, the coverage of information is becoming wider and wider, and information processing is becoming more and more difficult, so it must be improved. The processing of electronic information should be timely and reliable. During the information investigation and evaluation, the information should be processed according to the data structure of the evaluation. The application of computer information system must effectively judge the information in a short time, and combine the key content of the information with the subsequent processing of the problem to improve the accuracy of processing. Information processing is a basic task, which is processed scientifically with computer network technology. However, in practical applications, network factors will also lead to information security problems to some extent. Using computer network technology can effectively im-

prove data quality, processing efficiency and accuracy [6]. Firewalls can effectively prevent harmful information, illegal access, interception attacks, timely identification and malicious user intrusion, so as to prevent harm in the network. When using the firewall, it should be backed up to repair the loopholes in the system, so as to comprehensively improve the security and stable operation of the system. When processing information, computer network technology must fully consider the needs of users to ensure the accuracy and timeliness of processing, while maintaining the efficiency of data processing.

4. Closing Remarks

In our country modernization advancement, the technology of network can play decisive role. Scientific and technological workers can combine it with electronic information engineering, endow it with new connotation, so as to improve its innovation ability. Through the application of computer network technology in electronic information engineering, it can provide strong technical support for the society and human production and life needs, meet people's access to information to a certain extent, and play a key role in people's life.

References

[1] Wang W. The Practice of Computer Network Technology in Electronic Information Engineering [J]. China Computer & Communication, 2018.

[2] Liu C. The Practice of Computer Network Technology in Electronic Information Engineering[C]// 2020 International Conference on Intelligent Computing and Human-Computer Interaction (ICHCI). 2020.

[3] Zhang H. Analysis on the practice of computer network technology in electronic information engineering [J]. Wireless Internet Technology, 2017.

[4] Cui Z. Research on the Application of Computer Network Technology in Electronic Information Engineering [J]. Electronic Research and Application, 2022(003):006.

[5] Zhang D. Analysis and application of computer network technology in electronic information engineering. 2017.