Research on the Application of Computer Network Remote Control System

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Abstract

In this era of accelerated pace of life, high efficiency and superior quality has undoubtedly become the focus of attention. In this context, the computer has been the core component of our daily production, life and entertainment. In fact, the vast majority of modern areas cannot be separated from the computer, if separated from the computer, these areas are likely to be subject to enormous challenges and threats, so people and computer dependence are increasing. With the advent of the Internet era, the network and the economic, trade, cultural exchanges and other activities related to the increasingly problematic. The computer network remote control system is a new kind of multimedia network control system, Network platform to carry out related construction. In this paper, the application of computer network remote control system as the core of the study, hoping to provide help for the majority of technical staff.

With the rapid development of information technology in recent years, the domestic computer technology has been applied to our life and production aspects, can be said that the progress of the computer and to the mature development of modern society provides unlimited power. The computer is one of the most amazing and valuable inventions in the modern era, which provides an open and convenient network platform. However, due to the gradual progress of the times and the progress of society, the computer has a higher standard and requirements. In this context, the computer network technology continues to develop and improve, not only in the data and resource sharing are very widely used, but also the use of modern multimedia computer network system to achieve remote control, which makes the application of computer network for further expansion. The remote control system of the computer network not only overcomes the defects of computer users due to regional differences are not the sharing of information, but also can achieve the sharing of multimedia facilities, is a milepost development of modern computer network.[1]

Keywords: Computer network; remote; control; system

1. INTRODUCTION

The remote control system of the computer network is usually composed of a user terminal. Computer data server, controls terminal and various communication protocols such as part of the common composition of each component in the system plays an indispensable role. According to the working principle of the modern computer system, the computer server will register the data and information through the Internet, so that the receiver can calculate the user's instruction, and carry on the related operation on the computer. Computer network control system, the main function of the client is in accordance with the control information and data of the computer network, for each user to provide the required computer network hardware and software resources, and then use the computer user related data and information feedback to

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the user. In the modern network, the computer network is composed of 7 levels, and the control of information and data transmission is usually done by a computer network. If the computer network using HTTP protocol, so it should be selected to carry out centralized mode of computer network management, control and so on, because this type of configuration will effectively enhance the efficiency of the system, and has good coordination performance and flexible performance, which can promote the development of computer hardware and software resources supervision work carried out smoothly.[2]

The advantage of the application of computer network remote control system is not only conducive to the smooth development of computer management, but also to enhance the level of enlightened computer services. Due to the coming of the network era, the maturity and development of computer network technology are becoming more and more important. Computer network technology is not only the application base of computer remote terminal control, but also the technical support of innovative network monitoring facilities and remote control system. Due to the rapid development of the times, the Internet and computer network has become one of the important factors to change the world, and the emergence and development of Internet remote control technology make the network element early has been greatly improved. Therefore, we should make full use of modern computer network technology, and effectively promote the development process of prevailing computing network remote control system, and make contributions to the wide application of remote control system in our country.

2. Computer Network Remote Control System Structure

2.1 Main Control Networks

The remote control system of computer network, network controlled by the main control network and the communication protocol consists of three parts, and each part does not exist independently, but there is a certain relationship, less any part of the control system is not functioning properly. Specifically, the operating principle of the computer network remote control system is built on a series of operations such as mutual coordination and cooperation between the main control network, the controlled network and the communication protocol, so as to realize the remote control of the. The main function of the main control network for effective control and input user instructions, and then the data and information was input only computer remote control facilities, finally the as regular refer to the main control network into distributed network management control structure and centralized network management and control structure of two parts. Because the centralized network management control structure is easy to operate, and can reduce the probability of operational error, so it has certain advantages. But its cost is higher, the implementation of resettlement is difficult, so also cause computer cyber source sharing difficulty has improved, based on this, in the premise of the remote control system cannot use the centralized network management control structure, can choose the distributed network management control structure.

2.2 Controlled Networks

Controlled network usually refers to the use of computer software or hardware to complete the management of the computer network, and provide the corresponding management and control services. In other words, the control network is the core component of the computer, it can effectively accomplish the field of computer monitoring and information gathering and other aspects of work. At present, the controlled network system is comprised of nodes, controlled core and computer user interface. But note that, when the actual design, controlled the operation of the network, the relevant personnel must strictly follow the principle of safety.
system, which not only can effectively avoid the disclosure of user information, can make all kinds of potential problems are found as soon as possible and solution, thus effectively improving the safety performance of modern computer.[3]

2.3 Communication Protocols
At present, there are two main types of computer communication protocols used in China, such as IP protocol and TCP protocol. IP protocol is usually a combination of a number of computer network terminals, the use of computer packet transmission, so as to complete the computer network services. IP protocol mainly selects the survival time method to complete the work related, once the transfer time is greater than the actual data that computer users to achieve the set time, then the data will be completely removed, so to enhance the computer network data transmission security to a large extent, effectively prevent information leakage. The TCP protocol in the actual application process has a series of system operating standards, so its safe use of good performance. Moreover, the TCP protocol can effectively guarantee the long-term and normal operation of the computer system. However, due to the relatively high amount of network resources consumed by the TCP protocol, the processing efficiency of the computer system is low. At the same time, the TCP protocol only when two computers to carry out complete sharing of data resources, can greatly reduce the connection, convenient operation, and when the data transmission, TCP protocol commonly used data packets, and detection of technical personnel must be carried out before transmission fine, to ensure effective transmission of data. At present, our country is often used in the communication protocol is the TCP protocol and the IP protocol, which are also known as the TCP/IP protocol.[4]

3. The Overall Design of Computer Remote Control System
The design of computer remote control system usually includes four parts: a user terminal, information transfer center, controlled communication network and computer server terminal. The computer main control network in a number of core functions is for information processing, resource management and control facilities operation, in the process of the main control network instruction parsing, usually need to cooperate closely to the computer information processing center part smoothly, finally put to each with the facilities. At present, the minimum system configuration computer operation main control network is Windows XP or Windows 7 system; and the minimum configuration of computer controlled network operation is Windows XP, Windows 7 and Windows 8 systems; computer programming language used is usually C++; core tools also is the development of VS.Net, computer software Edi Plus2.2; at the same time the computer hardware environment is usually carried out in the experimental area network.[5]

4. Computer Network Master Server Design
The level of computer network server configuration is of great importance for the overall quality and efficiency of the computer, because it will greatly affect the overall quality of the system. Specifically, the computer network server configuration covering cyber source registration, the main control network monitoring and user command recognition and many other content, are one of the most important part of modern computer network control server design process. Before the domestic computer server configuration is actually the permissions only for computer users of the supervision work, and in order to identify the scope of the supervision system, which enables computer users to end with network address fully determined. At the same time, when the computer main control server design work, designers must strictly abide by the design steps of the corresponding arrangement, do computer network safe operation of the supervision work, and guarantee the qualified computer network has the
actual operational environment. Only when fully meet the above requirements, from the main computer network control program from the point of view, through the construction of the subroutine to complete the overall operation of the network environment test. This requires that the relevant personnel must first confirm whether the network operating environment is fully consistent with the analogous requirements, and then confirm and obtain the computer network address, and finally the construction of computer resources to receive the address.[6]

5. The Practical Application and Realization of Computer Network Remote Control System

The application and implementation of the remote control system has six main parts, the first, the main control network server environment inspection work related technical personnel to carry out scientific and effective computer, the main purpose of doing so is to ensure that the actual nature of the server configuration and communication protocol and the required network operating environment standard meet. Second, when meeting the running environment of computer main control network server and substantive standards, starting from the main control computer technology personnel network program to complete the detection point of view, the overall operating environment through the network construction to the subroutine, fully understand the actual computer servers and network connections, in order to guarantee the quality of the connection. Third, to carry out the construction of computer network server, and complete the relevant registration and start up of the computer network. In order to complete the construction of the current computer network server, you must complete the following work: the construction of the network information resources, receiving address; obtain computer server domain name; and fully grasp the reality of the user terminal. Fourth, when the actual binding of the computer server socket object is completed, the connection request will be filed on the server side of the computer. Specifically, the Listen O function to the server socket is directly through the request and start listening, so as to accomplish the construction of the maximum number of connections. The Socket on the computer server will take this as a starting point. Thus completing the Listen O function call. Fifth, respond to the user to send information, resources and other content to carry out effective and correct solutions. When complete the construction steps of computer server subroutine, for both client and server computer information transmitted between the application read effectively, in turn it into control commands, through the exchange of computer network transmission to the relevant facilities, after the completion of treatment, solve the work, the final processing results by computer server communication to the end user. Sixth, when the user obtains the related processing result, the effective solution and the processing method are further adopted. To this end, the integrity of the computer server operation process is over, the next is to prepare for the next operation, so as to effectively guarantee the smooth development of the follow-up service process.

6. Conclusion

With the advent of the era of social networking, computer plays a more and more important role in the society, it also has a great role in promoting the progress of society. It is precisely because the computer plays an increasingly important role, and with people's production and life more closely linked, so the application of the remote control system should arouse people's attention, so as to make contribution to promote the stable development of society. Compared with the traditional backward network control technology, the computer network remote control technology is more convenient and flexible, so that the majority of users to share
information and resources more convenient, so it has been extensively used. With the continuous development of the times and social progress, put forward higher requirements and standards of the remote control technology of computer network, in order to better adapt to the development of related technology R & D personnel should pay attention to the improvement of network remote control technology and perfect, so that it can fully meet the needs of the development of contemporary society, and promote the healthy and effective the stable development of China's computer network business.

References