Application of Computer Network Based on Data Communication Technology in Production and Life

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Abstract. With the development of modern data communication, it can effectively realize the long-distance information transmission and processing. At present, when there are many advanced devices, the processing functions can be enriched to the greatest extent, and data communication can be widely used in various industries. In daily production and life, computer network has been widely used, which can realize the large-scale transmission and sharing of information. After long-term development and improvement, the application of computer network in people's daily production and life can bring more convenient services, improve people's work efficiency and improve their quality of life. At present, computer network has been widely popularized and promoted, which makes the application of computer network technology constantly increase, brings convenient services to people's lives, and makes network technology more scientific and standardized. In the future, computer network technology will be widely used, so we should pay attention to the present application.

Keywords: Data Communication Technology, Computer Network, Production and Life Applications

1. Overview of computer network

In the development of modern society, computer network is widely used in people's daily life and work with its unique advantages. It integrates communication technology and computer technology organically, follows the corresponding network protocol, and realizes the effective connection of various computer systems by means of optical fiber, cable, communication satellite and microwave, and realizes the sharing and utilization of network resources while transmitting information. It is a modern intelligent electronic device to use computers in daily life and provide services for people according to corresponding procedures. Various information terminals realize interconnection and intercommunication through the network, and realize data connection and sharing. With the support of computer network technology, data and information exchange with hierarchical network functions can be realized, and the advantages of computer network can be brought into full play. In practical application, computer network can provide services for people's production and life because of its two-sided characteristics, and needs to be operated within the scope of corresponding standards.
Computer network has normative characteristics, and it can be applied to practice flexibly according to corresponding principles, which is helpful to stabilize the network environment, improve the application efficiency of computer network and better meet people's objective needs[1].

At the same time, the application of computer network technology in life has the characteristics of convenience. Because the computer network technology is updated in a short time, in real life, we should comprehensively consider the utilization of resources, give overall consideration to the depreciation rate of hardware and software, and appropriately reduce the depreciation expense of equipment. The application of computer network should meet the needs of market economy development, ensure convenient maintenance of instruments and equipment, and make greater contributions to the development of modern society.

2. The formation of computer network technology

In the future development of computer, can be roughly divided into several main stages, from the 1960s on, the computer appeared a lot of controllers, the distribution of these controllers is not concentrated, but in different lines, so that remote control can be quickly achieved.

In computer communication, a variety of networks of ten appear, so that the computer to the entire network to achieve effective control. Computer terminals are mostly distributed in different places, which will also bring users a different feeling and experience, many network systems are not perfect, some systems have many shortcomings, these shortcomings will lead to increased functional workload, so that the system reaction, and some even make the system reaction time too long[2].

Figure 1. Early computer controller presentation.

In the second major process of computer development, the speed of computer development gradually increased, and computer technology matured in development, when different machines are connected, these machines work at the same time. In the operation of the new system, the computer is prone to various problems, but even if the computer has different problems, the impact on the system is not great, the rest will work normally. With the emergence of computer network model, network design gradually complex, enterprises are vigorously developing their own systems, although some enterprises show complex and uncertain systems, but these systems have a certain degree of efficiency, and these systems can make enterprises and users more convenient and fast to use[3].

The third stage, this stage is mainly the rapid stage of computer network development, this stage of computer network development has been very mature, and this stage of the network has its own characteristics, the structure has a certain complexity and standard, mainly showing the characteristics of layering. But this hierarchical design, need to plan the content of each level in advance, divide each level of responsibility, so that all levels in a normal working state, conducive to the future work. In recent years, most of China's networks have been established, and the development momentum of the network is very rapid, many enterprises are vigorously research and development of their own
networks. As early as many years ago, there were many kinds of information systems in our country, which covered most of the business, especially some key projects and areas in our country, which gradually expanded in size and provided greater help and promotion for the development of computers, especially in the financial and scientific fields, where the results were more remarkable.

3. The application of computer network in production life
Social activities is based on man-made theme, in order to meet people's individual needs, to promote the development of computer network technology is an inevitable choice. The application of computer network in practice should be combined with people's needs to guide practical activities, promote the development of science and technology, efficient data processing, statistics and storage, to achieve the extension and expansion of computer technology. Under the rapid development of science and technology, computer network technology is a cutting-edge technology, the level of technology directly affects the comprehensive strength of the country. Therefore, we should continue to promote the technological innovation and perfection of computer networks, so as to make it more widely used in production and life[4].

3.1. Virtual network technology
In the practical application of computer network technology, virtual network technology is now the most popular and most advanced computer network technology, not only in people's lives have received a lot of attention and recognition, but also in the international community, because it will be the development of computer network technology and a wider range of applications to promote, so that it can better serve people. At present, there are many ways and channels of computer virtual network technology, and more and more places need to apply computer virtual network technology, such as many enterprises will apply this technology to the enterprise and promote it. In an enterprise, for example, they can use this technology to communicate face-to-face without having to walk to the office. They can build an information sharing platform, which by the company to use the information and resources, in this platform can be directly communicated, no longer as before, need to run to the person to communicate or the office, which can bring people more convenient and simple services, and resource sharing more convenient. In this technology of virtual network, you can also build a secure resource connection, click on the connection need to enter the corresponding password or face recognition to enter the see resources or use resources, can effectively ensure the leakage of internal resources, increase more security. In addition to these, the virtual network of this technology can also make information more rapid and efficient dissemination, without waste of unnecessary costs, to bring more economic benefits to the company[5].

3.2. Computer network data exchange technology
Among the people using computer network technology, if the use of this data exchange technology can expand the user's communication broadband, so that many computer network terminals can communicate in the computer network without information cross or collision. Switches and switch hubs, for example, are now widely loved, which are the most widely used data exchange devices
today. These two devices not only have the ability to store things, but also can forward information. Storage and forwarding is the most commonly used method in data exchange technology. This technique checks the packets on the input side, and if the wrong packet is found, the packet's destination address is found in the packet output converted to the exit. But this way the delay is relatively large, many in the use of this way will be packet detection errors, which delays the transmission of data, so still need to be perfected after widespread use.

3.3. The popularization of online shopping behavior
In people's daily life, the application of computer network, greatly promoted the development of e-commerce industry, people's online shopping behavior became more and more common, for the new era of market economic development injected new vitality and vitality, to promote the development of e-commerce enterprises. Online shopping is more flexible than traditional shopping forms, online shopping services on the shopping platform, can break the time and space constraints, shopping forms more flexible. For example, compared with the price of clothes purchased online and offline, the usually online purchase price is lower than the purchase price of brick-and-mortar stores, which can greatly facilitate people's shopping, meet people's various consumer needs, and bring greater benefits. It can be seen that, with the technical support of computer network, the rapid development of online shopping can meet the needs of different consumers, and even become an integral part of people's daily life.

3.4. Change of communication and travel mode
Before the computer network technology was widely used, people mainly communicated by letter or telephone. However, under the background of widespread popularization of the Internet, people's communication methods have changed. Nowadays, various mobile intelligent terminals use forms such as WeChat and QQ, which bring great convenience to people's communication and communication. With the support of computer network technology, people's modes of transportation have also changed. Air tickets and train tickets can be purchased in advance on the network through mobile intelligent terminals, taxis can be reserved, or bicycle scanning codes can be shared for payment, making travel more convenient. At present, shared bicycles in China are more than trains, and many first-tier and second-tier cities have settled in one after another. People can scan the code to pay for cycling, thus reducing transportation costs and making travel more convenient. It can be seen that the emergence of computer network has significantly changed the way people communicate and travel, which has brought considerable social benefits.

3.5. Application of internet of things and smart home
The new technologies of telecommunications, Internet and Internet of Things have promoted the great progress of human civilization. The emergence of smart home enables people to remotely control any electrical appliances in their homes at any time and any place through smart phones or the Internet, providing people with a more relaxed, orderly and effective modern lifestyle. For example, the remote control switch of a remote control socket is the most convenient, simple and cheap smart home application. It can be seen that, at present and in the future, if there is no Internet of Things and no smart home system, it will fall behind the world trend just like a house without Internet access.

3.6. Application in modern medical treatment
With the wide application of computer network technology in modern medical treatment, the establishment of information management system can realize the high sharing and utilization of medical information, optimize the patient diagnosis and treatment process, improve the efficiency and quality of diagnosis and treatment, reduce the work intensity and cost of medical personnel, and effectively improve the medical service level. At the same time, with the support of computer network technology, it is helpful to promote the development of telemedicine, realize the rational allocation of medical resources, and improve quality medical services.
4. The development prospect of computer network technology

With the rapid development of modern science and technology, the level of social development is constantly improving. Under the influence of external factors, people's lifestyle is impacted. Therefore, in the application of computer network technology, it gradually integrated into people's work and life, breaking the time and space restrictions of work and life. With the development of society, the whole network system is also innovating. Today, with the accelerating urbanization process, the efficient data processing mode of computer network technology meets people's fast-paced life. Therefore, through the network technology, we can solve the efficiency problems encountered in people's production, effectively solve sudden problems, drive the rapid development of enterprises, and make enterprises stand out in the fierce competition.

5. Conclusion

In this paper, the computer network is described comprehensively and simply, and then the virtual network technology and data exchange technology in the computer network are analyzed and studied emphatically. At the end of this paper, the application of the above technologies in production and life is also briefly analyzed. To sum up, with the continuous improvement and development of computer network, it has been widely used in people's daily life. By constructing a perfect service system and combining people's objective needs, it can tap the potential value of computer network, improve people's work efficiency, promote the progress and development of modern society, and bring greater economic and social benefits. With the continuous progress of society and the continuous development of science and technology, it is now an information age, and computer technology has been widely popularized, which also makes computer network technology develop rapidly, thus playing a very important role in the current social development. We should update the performance of computer system in time, improve the efficiency of computer operation, and constantly innovate computer technology, so as to make computer operation adapt to the modern network environment and further meet people's needs.

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