

How to Strengthen the Innovation and Application of Computer Network Management Technology

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Abstract: The proportion of computers in people's lives is increasing, people's work and life are more and more inseparable from computer technology, and the popularity of computers has reached an unprecedented level, and it is still growing. Therefore, computer network technology It directly affects people's work and life, which has caused computer network technology innovation to become one of the hot research issues at the moment. How to strengthen computer network management technology innovation has become a major problem in the current development of computer networks. In order to solve this problem, to promote the application of the innovative effects of computer network management technology, we must first understand computer network management technology. Only in this way can we strengthen the computer network management technology from the root and better promote the development and improvement of computer network technology. This article mainly introduces computer network management the current status of technology development, five technologies used in computer network management, and innovative applications of computer management technology.

1. Recent Situation of Computer Network Management Technology

Computer network management technology is of great help in solving computer network failures. It is widely used in computer network failure processing. Computer network management technology can not only solve the problems that occur during network work, but also promote the stable operation of computer networks. When a network failure occurs, it is necessary to take measures in a timely manner to resolve the failure, which will be affected by many factors during the fault discovery and resolution process. Due to the influence of these factors, it will lead to a lack of scientificity and comprehensiveness in the process of troubleshooting This brings great difficulties to the troubleshooting of the computer network, and makes it more difficult to troubleshoot and resolve the network. If there is a more scientific management method at this time to manage the faults that occur in the network operation, it will greatly Reduce the difficulty of eliminating network faults, and provide strong support for finding and solving computer network faults. Scientific computer network management is the main work of computer network management technology. From a macro perspective, the scientific use of computer network fault handling the computer network management technology mainly has the following Benefits: First, determine the location of the fault in a timely manner. When a computer network management technology fails in the network operation, it can timely find the fault in the network management technology and locate the fault location, which can bring the next work Great help; Second, it can improve the efficiency of fault resolution. Computer network management technology can more scientifically manage faults and improve the efficiency of fault resolution; Third, ensure the efficiency of fault operation. When a fault occurs when the computer network is running Using network management technology can ensure that the computer network operation efficiency meets the requirements of relevant standards.

2. Computer Network Management Technology

2.1. Fault Management Technology

Fault management technology is mainly to check, isolate and recover faults that occur during the work of computer networks. In large computer networks, once an error occurs, it is difficult to locate the location where the error occurred and it is difficult to find the point of failure. In this case, it is necessary to establish a fault management system to manage a large computer network, and scientifically manage all faults generated by the computer network, including the recording of fault information, etc., to facilitate subsequent troubleshooting and ensure that network users are provided with a stable network, therefore, network fault management technology is a very important technology. Fault handling is one of the main functions of a computer, because only this can ensure the stable operation of the computer network, and fault management is to ensure that the troubleshooting process is organized. The premise of this is that when a network fails, computer network management mainly performs the following steps: first, find the location where the failure occurred. Computer network management can find the location of the failure in a timely manner; second, isolate other networks. In normal Under different circumstances, different networks are interconnected. If a fault occurs, it is likely to affect other networks. In order to avoid causing a wide range of network failures, fault management technology can also prevent the network from being interfered by other factors, separating the faulty network from the normal working network, and the damage of the failure is minimized; third, the network is reconfigured. After the network fails, the computer network management can reconfigure the network to reduce the impact of the failure on the network.

2.2. Network Configuration Technology

Computer network configuration technology is also one of the indispensable technologies in computer network management, and it is inseparable from the stability and security of computer networks. The implementation of network initialization is mainly achieved by network management technologies, which can help Realize the secondary configuration of the network and bring better network services to people. Configuring the network technology can achieve some special functions during the secondary configuration of the network, and it can also continue to define and monitor the network.

2.3. Network Performance Management Technology

A large part of the work content of computer networks is data exchange. This is one of the important indicators for measuring the performance of computer networks. Therefore, there is a network performance management technology. The main function of this technology is to bring more stability to users. Network services to improve the performance of computer networks and the utilization of network resources as much as possible. With the continuous advancement of technology, the functional requirements in current network performance management have also automatically produced the network topology and network configuration. The introduction of technology has greatly improved network performance management, and the performance of network equipment has also been maximized.

2.4. Billing Management Technology

For a commercial network, if the network is to be profitable, then users need to be charged. This requires charging management technology to assist in charging. The materials in the computer network system belong to the paid use range, and the user's use records must be counted. And then charge according to the usage records. For non-commercial networks, users will also occupy certain resources when using the network, and statistics on the occupation of network lines are also required. The main units involved are measurement units and judgments. Overhead and other tasks, these tasks cannot be separated from the application of billing management technology.

2.5. Safety Management Technology

The issue of network security has always been the focus. In the process of using the network,

users will pay special attention to security issues, which puts forward requirements for security management technology. The characteristics of computer network systems can determine the unique vulnerability of the network's own security, so In order to prevent unauthorized use of network resources, it is necessary to establish a security management system to ensure the security of the network system. The functions included in network security management include controlling network resources and sensitive information, and access control of network equipment.

3. Application of Computer Network Management Technology

3.1. Computer Networks Have Become Essential Tools of Life And Work

With the diversification of people's requirements for computer functions and the continuous development and improvement of computer technology, people have gradually changed from the original simple demand for a single management software to the need for a good computer network management. This transformation is happening at the same time, people no longer just pay attention to the management content of computer management, but also pay more attention to the management quality and efficiency covered by computer management. Computer network management applications bring great guarantee to computer networks, the work of network administrators has brought a lot of help. As people use computers more and more frequently, research on computers has become more and more intensive, and people have paid more attention to the speed and quality of computer networks. It has also begun to receive greater attention. Now people are spending more and more time on the Internet, and the number of Internet users is increasing year by year. To meet such a large amount of user demand, the performance requirements of computer networks are also increasing. Only in this way can we meet such a large amount of user demand. In the state where people constantly change the computer network, the software of the computer network management is also constantly changing. The computer network management technology has changed from the management of equipment to the management of faults, and has also changed from the management of equipment to the management of computer performance. Now the computer network management technology in our mouth More attention is paid to the management of computer network security performance and system operability.

3.2. Computer Network Management Pays More Attention To Flexibility, Applicability and Intelligence

Compared with the original computer network management, the current computer network management focuses more on flexibility, application and intelligence. People's demand for computer network management has also changed from a single management software to a good computer network management. Pay more attention to the quality and efficiency of network management.

In order to meet the needs of such a huge number of users, in addition to the requirements for management software and network managers, software managers need to have good application management capabilities, be able to use computer management software skillfully and flexibly, and ensure that computer management applications are flexible. To solve the various problems of computer systems, in order to meet the changing needs of users, users must continuously improve and update network management technology to better meet the needs of computer users.

4. Innovative Application of Computer Network Management Model

There are two main types of computer network management modes: web-based network management mode and distributed object network management mode. These two modes will be introduced next.

The main characteristics of the distributed object network management mode are simple operation, simple structure, and strong transparency. It is widely used in current computer networks. The distributed object network management mode is mainly formed by combining Client / Server technology. But the shortcomings are also very obvious: First, there are few network sites, and at

the same time all the system data collected needs to be analyzed and processed. The small number of network sites have to deal with heavy tasks, which leads to frequent load on network sites. It is very likely that the information transmitted on the network will be lost, which will affect the network data transmission efficiency. Second, the design of the site program will be preset, which brings restrictions to the operation of the computer network, and there is not enough space to optimize the computer network. With the continuous development of computer networks, computer network management technology will continue to be optimized, and centralized computer network management technologies will be subject to certain constraints, which cannot meet the current needs of computer network development 【4】. This requires continuous management of computer network Model for innovation.

The development of Internet technology has brought a lot of changes to the network management model. The Web network management model was born in this situation. With the continuous optimization of the Internet technology, the performance of the Web network management model is also continuously improved. It is also constantly expanding, and it is now slowly replacing some local area networks. The reason why the Web network management mode is continuously expanding is because the Web network management mode has many advantages. For example, the Web network management mode can effectively reduce software maintenance costs and development. Funding, reducing software development costs, and simpler operation, so operators do not need to undergo less training to start work, so the use cost is relatively low.

5. Innovative Application of Computer Network Management Technology

5.1. Strengthen The Comprehensive Quality of Management Personnel

In order to ensure that the computer network can play its role to the maximum extent, management workers can play a great role in it. When managing a computer network, a computer network manager must have a certain amount of knowledge and only have sufficient knowledge of the computer. Knowledge can better display the functions of computer management software. Modern computer management software is constantly updated, and there is a big difference in the management of a certain software in traditional computer network management, so managers are also closely following the technological development Current trend, when carrying out computer network management, managers usually have to return practical computer network management advice solutions. At present, computer management software is moving towards the on-line development of enhanced computer network operation efficiency management. There is a big difference between the mode-focused mode and the traditional managers who want to adapt to this change must receive relevant training and understand the current use of computer management software to help them adapt to this change and improve their work efficiency. Employees must also train them to strengthen their professionalism Quality, provide high-quality talents for computer network management, and establish a professional computer network management team.

5.2. Optimize Computer System

The past few decades have been a period of rapid development of computer technology. The computer system has been continuously optimized and innovated, but there are likely to be some problems in the process of improving the computer. In order to reduce the problems that occur, scientific methods are required to ensure computer network technology. This is also one of the directions for future innovations in computer network management technology. In the process of adjusting and innovating the computer system, it must be improved in accordance with the actual needs of users. If the developed technology does not meet the needs of users, it is invalid. From the current user growth rate and people's demand for computer networks, improving data transmission efficiency is one of the issues that need to be solved urgently, so in the development process, more scientific methods and more advanced equipment must be used. Reduce development costs and increase the probability of successful development. In addition, the use of new equipment and new technologies is needed to further optimize the computer system, ensure that the development

direction of computers meets people's needs, and give people higher quality services for people. Improved quality of life improves strong support.

5.3. Innovative Cybersecurity Management

If we compare the traditional computer network management with modern network management technology, we can find the changes in it. The computer network currently used can use the characteristics of the computer network system to analyze and judge its own shortcomings and advantages ^[9]. Now computer network managers the work is mainly to collect fault information and analyze the fault information during network operation. It is also necessary to prevent illegal occupation of network resources. Network managers must fully understand the main meaning and standards of network management during the work process. This is where the innovation of traditional network management technology is compared.

5.4. Enhance Computer Network Performance

The most frequent function that people use computers is information query. The functions involved are the exchange and transmission of data information. Therefore, during the management of computer networks, the main function of computer networks is to ensure the exchange and transmission of data information. Computer network performance must move in this direction, and computer network management should use more scientific methods to ensure the implementation of data transmission.

6. Conclusion

In short, with the increase of the influence of computers in people's lives, the requirements for computer technology are also increasing, and computer network management technology is one of the main technologies to ensure the normal work of computers. In the continuous improvement, in order to meet the needs of people, we must continuously improve the computer network management technology, not only to optimize the computer system, strengthen the computer network performance according to the actual needs of users, and bring more convenience to people's lives.

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