Future Development Trend of Wireless Communication Smart Antenna Technology

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Abstract. From the overall situation of modern society, we have step by step into the comprehensive information age, our traditional way of life and work has been gradually changed by advanced communication technology. In the process of the continuous development of the information age, due to the continuous development of information technology, computer network security has been threatened by the very serious, and criminals in order to benefit, such as hackers constantly trying to break through the network firewall information acquisition, data and information of trafficking, serious can lead to companies appear even leakage of trade secrets. This paper improves from the radio monitoring level, aiming at the leakage of computer information, has the purpose to improve the network communication mode, aiming to provide relevant technologies and solutions, and provide relevant reference for the application of computer network.

Keywords: Radio Monitoring, Computer, Network Information, Security

1. Introduction
Radio technology is the core of information and communication technology. It is necessary to transmit and receive information by means of radio communication for confidentiality protection. With the continuous popularization and development of the computer industry and the Internet, we gradually pay attention to the security of computer network communication [1-3]. In view of the current network environment and market demand for network security, this paper simply analyzes the process of radio monitoring to encrypt the computer network security protection.

2. Analysis of the causes of computer network information leakage
2.1. Security issues of computer hardware equipment
The reason why the computer can achieve normal communication function is closely related to the hardware of the computer, because the performance of the hardware equipment determines whether the computer can run smoothly [4-6]. In order to ensure the speed and convenience of accessing the Internet, the generation of various micro and minicomputers at present benefits from the PC's ability to reduce its size, making the computer more convenient to carry, but many information hackers are using these changes to crack and steal the information in the user's computer.
2.2. Security vulnerabilities of computer software

Modern people are very dependent on computers, whether for work or entertainment, the development and use of computer software provides convenience for people's life. Although many computer technicians have considered in the software development to software security problems, but unavoidably appear omissions, leave software technology gaps, many computer hackers or use of this defect, virus invasion to the computer, steal the user's information, the harm of this security for computer communication is very big.

![Diagram](image)

**Figure 1.** Future applications of wireless communication smart antenna technology.

As shown in the figure 1 above, many software now has repair functions, which can timely find software vulnerabilities and fix them. Adopting this new technology can not only prevent the invasion of viruses, but also protect the security of the computer. Software vulnerability has become a problem that cannot be ignored in modern computer security.

2.3. The existence of subjective computer operation errors

The release and transmission of network information are both completed by individuals. In the process of establishing information transmission, on the one hand, information is easy to change its original meaning, which leads to the fact that information is easy to change its authenticity in the process of transmission at the source, and it is difficult to establish a secure communication system. On the other hand, computer users are not aware of their own security, or there are problems and defects in their operation in the process of using the computer, which also increases the risk of information leakage. Many computer security personnel pay insufficient attention to information security, which may lead to the leakage of important information and be exploited by hackers.

3. Overview of radio monitoring technology

Radio monitoring technology is a means of the basis of information dissemination and communication, can use the corresponding communication technology and communications equipment for the determination of radio signals and monitoring, according to the transmission of a radio signal
frequency and network bandwidth, data monitoring, so as to realize the diagnosis of signal recognition, shielding and blocked by system identification of unknown signal, in order to ensure the safety of information storage. The computer can be protected more comprehensively by radio monitoring, and the off-line computer disconnected from the network can be well protected, and the security performance of the network can be evaluated. Radio monitoring mainly includes the following monitoring contents:

3.1. Three-dimensional monitoring
Radio monitoring technology can be according to the network in Internet information maps and other information processing platform, to judge of time and space dimensions, the electromagnetic field surrounding the computer environment monitoring, once found that the surrounding electromagnetic field changes, can immediately to new radio signal monitoring and identification, ensure the safety of electromagnetic environment.

3.2. Automatic monitoring
Radio monitoring technology can automatically adjust and control all kinds of monitoring items according to the changes of network conditions, and quickly adjust all kinds of processes to realize automatic safety monitoring by computer.

3.3. Active monitoring
Radio monitoring technology can realize active monitoring, when there is abnormal monitoring signal on duty will automatically alarm, to actively realize the protection of computer information.

3.4. Collaborative monitoring
Radio monitoring technology can establish a central monitoring network, carry out unified scheduling of monitoring equipment, analysis system and interference equipment, realize coordinated monitoring and guarantee systematization of monitoring.

4. Radio monitoring in computer network information security and confidentiality policy
Above already has carried on the summary to the computer of a variety of possible ways to leak, then the radio monitoring technology are introduced, according to the features of radio monitoring technology, is described in detail the principle of radio monitoring technology and monitoring project, make readers clear of radio monitoring technology have a correct understanding. Next, the implementation of radio monitoring in computer network information security and network security strategy are discussed.

Computer users need to regularly monitor the computer security system, virus detection and killing and other basic computer security work, the use of more advanced computer security software, the overall security of the computer to improve. At the same time, the computer disk is cleaned and managed to enhance the application level and scope of radio monitoring technology, to improve the information communication function of the computer network and ensure the security of the network system.

In addition, computer users should also be regularly on the level of the firewall to ascend, continue to upgrade the firewall and encryption, firewall can keep up with the virus specific changes, to determine computer login user's information, eliminate all illegal intrusion means, to encrypt the data information, management software running all permissions, judge for themselves whether to give the corresponding privileges by the user, to further improve the security performance of the computer.

5. Wireless network sensor database management based on cloud computing
With the advent of the information age, cloud computing continues to develop along with the information revolution. The epitome of the discovery of the information age can be seen in the evolution of information computing devices, from mainframe computers in the 1960s, to
minicomputers in the 1970s, to private computers in the 1990s, and now to the Internet age affecting people everywhere. The constant updating of equipment means that the technology is constantly changing and the speed of communication network is constantly accelerating. As the foundation of cloud computing technology, it means that the development of cloud computing technology is going on all the time.

![Figure 2. A cloud-based study of distributed database management.](image)

For software engineering design concepts at the same time, also as the development of technology, great changes have taken place, in the 1970s, as a result of the limitation of technology, people in the design of software engineering, is limited by process scheme design, with the development of technology, the software design change gradually, slowly by the original software oriented machine into software as a service, and this shows that the development of cloud computing technology with more human oriented, provide a more humanized service for people.

The continuous development of science and technology and innovation, has brought the huge impact to people's life, people interact with machines have changed slowly, people first to interact with the computer via the keyboard symbols, developing to now touch, voice, gestures and other man-machine interactive mode, and multimodal interaction design core are around the user experience, software designers will focus on the user's demand to design.

6. Conclusion
Starting from the development of IPv6 and IP multi-development technology, this paper analyzes the Free Pastry routing algorithm in the cloud computing technology, and further explores the application scope of the Pastry system algorithm to build an ipV6-based IP technology development overlapping system, so that it can be applied more efficiently. At the same time, the data in IPv6 was adjusted by modifying the operation function in the Epochal Inept Socket Address, and meanwhile, the corresponding network TCP protocol of Free Pastry was established to maintain the original communication. Starting from the practical application environment of IPv6, the application environment universality was continuously improved to promote the construction of the next generation IPv6 network system.

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