Retraction

Retraction: The Development and Future Trend of Remote Network Monitoring Technology Based on Computer Technology (J. Phys.: Conf. Ser. 1915 022006)

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This article has been retracted by IOP Publishing following an allegation that raises concerns this article may have been created, manipulated, and/or sold by a commercial entity. In addition, IOP Publishing has seen no evidence that reliable peer review was conducted on this article, despite the clear standards expected of and communicated to conference organisers.

The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

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The Development and Future Trend of Remote Network Monitoring Technology Based on Computer Technology

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Abstract. With the development and progress of technology, simple software can no longer meet the current market demand. Therefore, with the development of computer technology, it has entered the remote monitoring sector, and its effect is very prominent. This paper mainly describes the concept of computer network technology and remote monitoring technology. It also explains the influence of remote monitoring technology in the field of software programming.

Keywords: Computer Network Technology, Remote Monitoring System

1. Introduction
Information technology has injected a lot of vitality into the current era, it has fully promoted the development of society. Computer network technology is a new type of technology, which plays a non-negligible role in the field of information technology. Computer network technology has paved the way for the application of remote monitoring systems.

2. Computer network technology and remote monitoring technology

2.1. Computer network technology
Computer network technology is mainly divided into two parts: computer and network technology. The former is the carrier to be used, and the latter is the operating condition of the carrier. When the computer is used, it needs to operate through network technology. The former is mostly the latter. For the load body, network technology is a big network, which plays an indelible role in the entire operation. This is the key and core. This technology is a complete and complex system, and the middle part has the role of an intelligent section. As the saying goes, "intelligence" is the best way to understand it, just like people themselves, with awareness, thinking, and extremely high resolution. When acting, they can think like humans and respond accordingly to situations [1]. Computer network technology itself has many advantages worthy of application, as shown in Figure 1:
2.2. Remote monitoring technology

Literally understood, remote monitoring can be divided into two parts: "monitoring" and "control". Among them, "monitoring" means remote monitoring. It can be divided into two parts: one is the monitoring of the environment, and the other is the computer system and network equipment. In any case, remote monitoring refers to obtaining information through the network; and "control" refers to remote control, which refers to the method of operating a remote computer through the network. It does not only include restarting the remote computer, shutdown and other operations also include daily settings for remote computers. The remote boot function can also be realized through the cooperation of hardware. All in all, if you want to fully control a remote computer, you must first be able to monitor it, that is, you can see the computer's screen display, and then you can talk about "control". The remote control must be "monitored" and "control". Combination, so what we usually call remote monitoring generally refers to this kind of remote control [2]. In addition, for network administrators, remote control also includes the control of network devices. Nowadays, most network devices support Telnet, and even Web-based remote management. This is also a remote control method. The characteristics of monitoring technology are shown in Figure 2.

![Figure 1. Advantages of computer network technology](image1)

![Figure 2. Features of remote monitoring technology](image2)
3. The influence of remote monitoring and fusion network computer application

With the frenzied growth of science and technology, the economy has also changed rapidly. With the integration of high-tech networks and computers, information technology has converged. This phenomenon has saved costs to a certain extent and improved the efficiency of data and network operations. But everything has two-sidedness. While facilitating our daily life, the computer network field will also bring us troubles. We must face the problems squarely while enjoying the convenience. We cannot predict the computer network itself. Important data in the security system of remote monitoring is very important. Therefore, if we want to protect the security of data, we must ensure the security system in remote monitoring [3].

(1) The application of computer network technology in the remote monitoring system makes remote monitoring more influential and well-known. This kind of application can have good compatibility, and through superb digital equipment video processing, allowing users to control in the field, which saves manpower, and lays a good market foundation for remote monitoring systems. With new opportunities, people will have a lot of work every day, and work efficiency is low, but the development of remote efficiency in the application of computer networks will reduce some of the things that need to be handled manually. The application of network engineering security management under the new situation is a revolutionary concept, which can break the traditional network security situation. Network engineering security is a network expansion, and the expansion form is more representative than before.

(2) The application of computer network technology in the remote monitoring system makes the data more efficient. Under the new situation, remote monitoring needs to process a considerable amount of information and data and transform it into a picture quality. Because the management of network information and data is under great pressure, computer-based applications are very important, which satisfies the scale of information. At the same time, it saves work resources, which leaves room for information processing in remote monitoring, reduces manpower processing information, and to a certain extent reduces the psychological and work pressure of staff, and information processing has gradually become routine.

(3) The application of computer network technology in remote monitoring systems will form new competitiveness. When a new thing is applied or pushed out and used with good results, it becomes competitive. When traditional monitoring is replaced by a remote monitoring system applied on computer network technology, it becomes focus, this will become all the considerations of relevant institutions. To solve this thorny problem at the moment, we must go deep into the system to see the problem, and then solve the problem, that is, to remotely monitor the management information system, which will be remote monitoring. The compatibility of management information systems brings opportunities [4,5].

4. Application status of computer network technology remote monitoring system

4.1. Insufficient security of monitoring system design

The complexity of the computer network architecture is self-evident. The traditional personal consumer-level network security system application does not actually have good professional network security protection capabilities. Although it can resist conventional virus intrusion, it is against intelligent network intrusion based on software system development. Module is helpless. Therefore, personal consumer-level network security systems are not suitable for network technology remote monitoring systems. You must choose enterprise-level or industrial-level network security modules as the basic monitoring system architecture to improve the security of monitoring management at the system level. In addition, the application of network security technology in my country is in the mid-stage of rapid development. The network security control system is not yet complete. The maintenance of some critical network monitoring systems still needs to rely on foreign patented technology, which makes the network technology remote monitoring system application safer. Discount [4,5].

4.2. Insufficient standardization of monitoring system management
The structure of the remote monitoring system of network technology must be regularly maintained by a professional technical team. Due to insufficient investment in technology costs, some small and medium-sized enterprises can hardly support huge professional technical management expenses. At the same time, technical management is easy to become the target of illegal network intrusion in some warm holes. The further standardization of monitoring system management does not only refer to the physical operation management level. While ensuring the security of the physical environment, it should cover monitoring key verification, monitoring information review, and monitoring information extraction [6]. Therefore, monitoring system management standards should start with software management and hardware control. Otherwise, it will be difficult to ensure the effectiveness of network technology remote monitoring system applications.

5. Application countermeasures of computer network technology remote monitoring system

5.1. Construct and improve the network security control system
Improving the network security system will effectively remotely monitor the security risks of the system. First of all, based on the application requirements of the network remote monitoring system, in-depth development of the network security system is required to ensure the security of the network system use environment. Secondly, we must do a good job of network information transmission encryption to avoid illegal network interception, and adopt multi-algorithm data encryption processing for fixed network ports, mobile network ports and basic server ports. Improve the flexibility and variability of network information encryption processing, and realize the safe transmission of network monitoring information. Finally, from the aspect of human factors, we must do a good job of multi-node network identity verification, split the original network security key information, and constantly update the content of the network security key based on system security processing. After identity security verification, the key information is reorganized to make the network monitoring system security management system more complete [7].

5.2. Pay attention to the management of remote monitoring core technology
Remote monitoring of core technology management refers to the development of core technologies. Improve the effectiveness of the network remote monitoring system. For example, different industries have different requirements for the use of network remote monitoring systems. At this time, it is necessary to develop a suitable network operation management environment based on the use requirements of enterprises and other organizations, and establish a scientific network monitoring use management mechanism within the network monitoring system. Network monitoring users provide more comprehensive monitoring management services while ensuring that the network monitoring system is not interfered by internal environmental factors, ensuring the timeliness and accuracy of monitoring information feedback, and giving full play to professional management technology in remote monitoring technology [8]. The practical advantages in application lay a good technical foundation for the network monitoring system to be better used for multi-environment control management.

6. Security application analysis of network technology in remote monitoring system

6.1. Application of network security management
The application of computer network technology in remote monitoring systems for resource sharing in network security management mainly includes the investigation of wireless network systems, computer network control and monitoring, but all information involving personal privacy or business interests must be confidential when transmitted on the network. The protection of security, integrity and authenticity, for an enterprise, the most important thing is the security encryption and protection of internal information.

Optimize the wireless network system in remote monitoring. Because remote monitoring is applied on the basis of a computer network, everything is based on network technology issues. If there is a
problem with the network, the remote monitoring will be paralyzed. Therefore, it is necessary to test the network from time to time, monitor the network problem, and find the breakthrough point to solve the problem. At the same time, establish an evaluation system to synthesize user information, pay attention to user evaluation, integrate related issues, and operate in the system to fill up loopholes.

(2) An intelligent firewall must be established in remote monitoring. The intelligent firewall is established to protect the remote monitoring from viruses. The remote monitoring is based on computer network technology. The uncertain factors of the computer network are very complicated and cannot be controlled. The firewall is set to strengthen the security of remote monitoring. And security, protecting related information and data from being destroyed, this is an important protection method used by computer network technology in remote monitoring systems [9].

6.2. Technical points related to the use of control signals
For the problem of signal adoption, the remote monitoring and computer are connected together. The computer receiving method takes the template as an example. The received template is 1:N, and the received signal is sent to the main system by the control system of the slave station for display Image processing, so that the slave station and the master station have dual compatibility. In the process of receiving images, the slave station is responsible for sending, and the master station accepts and backs up, which improves safety and control [10].

7. Conclusion
At present, applying computer network technology makes remote monitoring technology more advanced. With the combination and deepening of computer network technology and monitoring technology, the future remote monitoring market will definitely become broader with the development of computer network technology.

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