

# Computer Data Processing Based on Cloud Computing Technology

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**Abstract:** This paper first analyzes the effective application of cloud computing technology in computer data processing, including maintaining the secure transmission of data, providing data processing service platform And then introduces the development and improvement measures of cloud computing technology, including improving the security of cloud computing technology, developing mixed cloud computing technology, developing cloud computing mobile terminal, hoping to provide effective reference for relevant people.

## 1. Introduction

Under the condition of the continuous development of computer related technology, more and more cloud computing technology is used in the process of processing all kinds of data, which further improves the convenience and efficiency of computer data processing. Combining cloud computing technology can improve the security of data processing and prevent all kinds of data risk problems, which provides an effective means for data processing in the new period.

## 2. The Development of Computer Data Processing Based on Cloud Computing Technology

The cloud computing technology can not only enable the whole computing process to realize the virtualization development, but also can count the virtual storage of various computing, and the technology can also implement the rapid processing analysis for the mass information data, and has outstanding application advantages. SaaS, IaaS, PaaS mode are three core modes in the data processing of the present cloud computing technology in China, which can be used for the unified construction of computer theory resources, chemical resources, data resources and the like in different ways, different fields and different backgrounds. Make a reasonable supplement to the problems in the computer software and the cloud computing program, and can also move on the mobile phone and the computer in the standby network, the centralized processing of large-scale data further stimulates the important role of cloud data and expands the data resources. With the expansion of data resources, the overall organizational form of cloud computing background presents a very chaotic state, and with the expansion of computing data consumption scale, to a certain extent, it hinders the expansion of cloud computing function. Therefore, from the analysis of the current actual development, computer processing data based on cloud computing technology is one of the best processing means at present, which can effectively improve the data processing level of cloud computing technology, achieve benign development and expand the future development field.

## 3. Effective Application of Metacomputing Technology in Computer Data Processing

### 3.1 Ensuring the Secure Transmission of Data

The implementation of data processing in cloud computing technology is mainly based on computer network, and computer network is not without loopholes, prone to a variety of risk problems, such as hacker intrusion and virus threat, will lead to data loss and data damage. In this case, in view of this kind of information loophole, the cloud security concept has been born one after another. Under the condition of continuous upgrading of cloud computing technology, the concept of cloud security can effectively reduce the security loopholes in computer networks and

ensure the security processing of data. Combining cloud security with cloud computing technology can improve the security and effectiveness of data processing. And the user can also use the information computing platform to form a stable database, from the security hazard prevention level analysis, cloud computing technology and users belong to a proportional relationship, with the continuous increase in the number of users, cloud computing technology to control the hidden dangers of data is stronger, and then improve the operation stability of the database [1].

When the hidden danger of virus is produced in the computer, because of its limited scope of action, the cloud computing technology can collect the relevant information at the first time, solve the hidden danger directly before the hidden danger of the virus erupts completely, and prevent the destruction of the data information of the client. The application of cloud computing technology in secure transmission includes the following contents: first, the security problem. In the process of processing data, the client needs to be the first to log on to the cloud computing technology platform, and then the relevant instructions of the platform to carry out various operations. It is important to note that in the process of the application platform, the system will distinguish the user according to the access rights settings, and only accurately input the secret. The code and the platform can provide corresponding application conditions, so that the user can carry out the data transmission work autonomously, and the platform can protect the safe transmission work. The second is the dual authentication technology, that is, after the user port inputs the accurate password, the platform automatically starts the double-authentication, and combines the verification code input to carry out the secondary authentication for the user's identity, and improves the data transmission stability and the security. And the verification code is mainly sent to the mobile phone of the user end, and the verification code is input in a designated platform position, so that the transmission data can be started, and the method can also effectively prevent other users from accessing. There is a large gap between the verification code patterns. It has strong pertinence, except for the client, the remaining users cannot get the verification code.

The third is login location information, when the user transmits the data, the computer can help to clarify the corresponding location, when the external malicious personnel make malicious changes to the relevant data, it will reduce the security of user data processing. In order to solve this problem, it can stimulate the data processing function of cloud computing technology, prevent the platform from producing related problems, help hide login information, and ensure that other people in the network will not easily find location information. In view of the external personnel trying to apply the user account, the cloud computing technology platform can send an email to alert the user to the individual at the first time, and accurately inform them of the risk of intrusion, reminding the user that they can reject it. His users log in to improve the security of user data and accounts.

### **3.2 Provide Data Processing Service Platform**

In the information age, people pay more and more attention to the power of science and technology, and with the development and innovation of cloud computing technology, people's research work on cloud computing technology is getting deeper and deeper, which is the mainstream trend of computer technology in the future. Cloud computing technology also has convenient, unique and other potential advantages. By analyzing cloud computing technology from the point of view of service platform, users can constantly improve the computer related infrastructure with the help of network, so as to further improve the fluency of computer operation and make it an effective service platform for data processing. The cloud computing technology service platform is shown in figure 1:

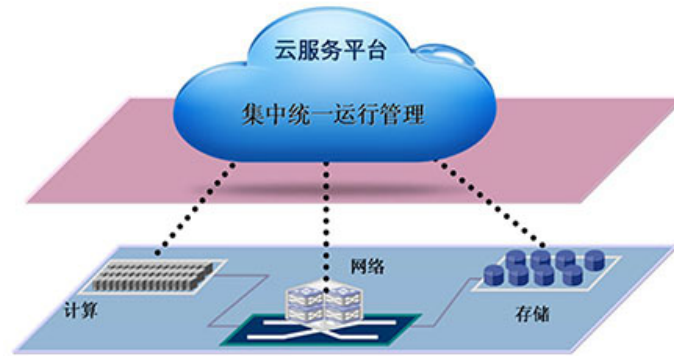


Fig.1 Cloud Service Platform Operation Mode

In general, cloud computing technology mainly includes two types of services, the first is PAAS platform infrastructure level services, that is, the development environment and cloud computing technology corresponding server as the basis of user services. The second is the IAAS platform infrastructure level services, that is, combined with a variety of infrastructure, to provide users with a variety of services.

## 4. The Development and Perfection of Cloud Computing Technology

### 4.1 Improving the Security of Cloud Computing

In the process of computer data processing, it is necessary to apply cloud computing technology flexibly to improve the security and reliability of cloud computing. In the process of computer data processing, the relevant personnel also need to form a good security awareness and pay attention to observe the security of network data transmission. In addition, we should also conduct in-depth research on encryption technology. Reasonable application of various encryption technologies to prevent data leakage and improve the security and stability of cloud computing. In data transmission, encryption technology can ensure the security of data information, so it is necessary to choose scientific standards to study the relevant encryption technology. Through cloud computing technology, it has been processed for computer data. In the course, if the problem of potential safety hazard is generated, the corresponding measures should be set up to solve the above-mentioned problems thoroughly. In the problem processing, various data should be recorded in detail, and the specific information data shall be stored in the information system, which will lay a good foundation for the later work, and improve the application security and stability of the cloud computing technology. The security agreement should also be signed so that cloud computing technology benefits can be highlighted. In the research of security protocol, the key certification technology should be paid attention to, and the technical personnel should be familiar with the operation of the password.

### 4.2 Research and Development of Technology Related to Hybrid Cloud Computing

Hybrid cloud computing technology is the combination of private and public cloud computing technology. By using the hybrid cloud computing technology, the related data information can be processed more safely and effectively, and all kinds of data resources can be processed automatically, the data processing cost of the computer can be reduced, and the control and management of the data resources can be strengthened. In addition, combined with cloud computing hybrid technology, but also to improve the coordination of public and private cloud computing technology.

### 4.3 Development of Cloud Computing Mobile Terminal

Technology research and development is mainly based on the provision of convenient services, and so is cloud computing technology. In order to promote the overall popularization and development of cloud computing technology, it is necessary to actively develop mobile cloud

services for cloud computing technology. The development of cloud computing mobile can further improve the local storage capacity of data, combined with WEB offline and multimedia can also expand data storage capacity. At present, it has great potential for development in the field of cloud computing mobility. For example, relevant R & D personnel need to fully integrate the information system to design the cloud computing mobile terminal, develop high-level mobile cloud services, promote the effective improvement of data security, and ensure the smooth transmission of data [2].

## **5. Conclusion**

In summary, integrating cloud computing technology into computer data processing can improve the convenience of data processing. From the analysis of the overall development trend, cloud computing technology has strong application advantages, such as high efficiency, convenience and rapidity of data processing, which can further improve the efficiency and quality of computing data processing.

## **References**

- [1] Cui, Yao. (2019). The Application of Cloud Computing Technology in computer data processing: cloud Computing: concept, Technology and Architecture. Chinese Scientific and technological papers, vol. 14, no. 07, pp. 822.
- [2] Yang, Fan., Zhang, Xudong. (2019). Application Analysis of Cloud Computing Technology in computer Network Security Storage. Information and computer (theoretical Edition), no. 11, pp. 197-198.