

Analysis and Suggestion on the Application of Cloud Accounting under the Background of Big Data

Qing Wang

Chongqing College of Electronic Engineering, Chongqing 401331, China

Abstract

With the development of technology, cloud accounting based on cloud computing has gradually become a development direction of enterprise accounting information. At the same time, the development of big data has also promoted the scope and efficiency of data use, accelerated data sharing, and put forward new requirements for the application of cloud accounting. This article analyzes such problem. This article first reviews the connotation and application status of cloud accounting, and then focuses on the new characteristics and new requirements of cloud accounting development in the era of big data. Finally, this article puts forward suggestions in terms of establishing data standards, improving data security capabilities, and strengthening the construction of cloud accounting platforms.

Keywords

Cloud Accounting; Big Data; Data Standard; Data Security.

1. Introduction

In the era of big data, cloud accounting has become a development trend. Cloud accounting provides a guarantee for the rapid acquisition of accounting information and data, and significantly improves the level of accounting information processing, enabling enterprises to effectively control financial management costs, and creating advantages for enterprises in market competition. But big data also puts forward new requirements for the development of cloud accounting, so it is necessary to discuss the development of cloud accounting applications in the era of big data. This article will review the connotation of cloud accounting, and analyze the new characteristics and needs of cloud accounting development in the context of big data, so as to put forward relevant suggestions.

2. The Connotation and Application of Cloud Accounting

2.1. The Connotation of Cloud Accounting

Cloud computing is a super computing model based on the Internet. Tens of thousands of computers and servers are connected together in a remote data center. Users can access the data center through the Internet, perform calculations according to their own needs, and distribute the calculations. On a large number of distributed computers, rather than local computers or remote servers, huge data can be calculated anytime and anywhere with fast speed.

As early as the end of the 20th century, scholars had introduced cloud accounting based on the development of cloud computing to analyze the possibility of its application. With the mutual penetration and integration of the Internet, cloud computing and accounting model has gradually formed, which is the so-called "cloud accounting". Some scholars have discussed the connotation of cloud accounting (Hu Die and Guo Hong, 2018). Fan Yanping and Cao Wei (2014) pointed out that cloud accounting is the study of cloud computing applied to accounting data. Han Shuo et al. (2015) summarized the meaning of cloud accounting from both parties of the

transaction, that is, cloud accounting is that service providers provide software, hardware, and maintenance services, while customers use equipment, so that both parties promote the realization of online accounting information system functions. Zhu Yingxue(2016) proposed that cloud accounting is an accounting informatization infrastructure and service constructed using cloud computing technology and concepts, and the author also proposed the service model of cloud accounting including infrastructure services, platform services, software services, etc. Wu Yuhua (2021) proposed that cloud accounting is to use the cloud computing platform to complete specific accounting work, that is, to use the Internet to build a virtual accounting information system, comprehensively improve accounting efficiency, and optimize the accounting service outsourcing model.

2.2. The Advantage of Cloud Accounting

Both cloud accounting and traditional accounting software are accounting software, both use double-entry accounting as the principle and use accounting tools based on relational databases. Generally, they include the following modules: general ledger module, accounts receivable and payable module, bank cash account module, etc. Traditional accounting software is installed on a computer or local area network, and only certain computers and networks can be used. Cloud accounting, which combines cloud computing and accounting, is different in that it is an online accounting software. We can access the system through the Internet anytime, anywhere, and collaborate with other accountants and auditors in real time. In general, the advantages of cloud accounting are mainly reflected in the following aspects: first, it helps reduce the cost of informatization of corporate financial accounting and management accounting, while companies can unilaterally purchase computing power from each service provider as needed; second, using cloud computing, the company's original vouchers can be accounted at any time and on the spot, realizing the informatization of accounting processing; third, the information of the business department can be transmitted to the financial department in a timely manner in the cloud, which saves time and manpower; third, it saves the financial staff from devoting their energy and time to specific financial accounts, which improves the operating efficiency.

2.3. The Application of Cloud Accounting

Currently, cloud Accounting is well used in developed countries such as the United States, Australia, Canada, and Japan. Take Japan as an example. In the late 1990s, Japanese academic circles began to analyze and research cloud computing and cloud accounting, but it was not until 2010 that cloud accounting gradually entered the public's field of vision. 2011 ~ 2015 is a period of rapid development of cloud accounting services. At the end of 2015, there are more than 10 cloud accounting service providers in Japan. It is estimated that the utilization rate of cloud accounting services for Japanese SMEs will reach more than 10% in 2020(Li Yingchun, 2016).

In China, the application rate of cloud accounting was relatively low in the past due to the constraints of costs and managerial concepts. However, in recent years, the pace of accounting informatization in China has accelerated, and cloud accounting has been accepted by more and more companies. Kingdee and Yonyou, the two traditional financial software service providers, are currently vigorously competing for the market share of cloud financial software. At the same time, some new and emerging financial software are also committed to developing cloud financial software.

3. The Characteristics of Cloud Accounting under Big Data

The development of big data will play a better role in promoting the use of cloud accounting. Below, we will discuss and analyze it.

1. Further promote financial sharing. The development of big data technology has further promoted the sharing of data resources and the process of accounting informatization. It combines cloud accounting with accounting informatization to realize the effective integration of accounting data resources, thereby providing users with a highly resource-sharing platform. The information of each department and each business link will be concentrated on one platform, and each department can communicate in real time and seamlessly connect, which will help improve management efficiency and reduce operating costs. Moreover, under the cloud accounting model, the accounting information system of each unit is better connected with external units, which improves the smooth communication of information and promotes the realization of information sharing.

2. Further reduce the cost of accounting information. Under the cloud accounting model, each unit establishes a cooperative relationship with cloud accounting service providers, and uses cloud accounting software to realize the processing and analysis of accounting data, saving manpower and material resources, and each unit only needs to pay for the software. That is, complete data analysis can be obtained, and corresponding supporting services can be enjoyed. Each unit does not need to carry out software development and maintenance, nor does it need to carry out the construction of related supporting facilities, which can save the large amount of expenses. The development of big data will further promote this development and reduce the cost of informatization.

4. Requirements for the Development of Cloud Accounting under Big Data

1. Cloud accounting's big data standards need to be standardized. The big data standard system is composed of five types of standards: basic standards, technical standards, product and platform standards, big data security standards, and application and service standards. However, there is still a lack of standards for accounting big data in various countries. Take China as an example. The Chinese government and relevant departments have not yet issued cloud accounting-related data specification standards. Cloud service providers who lack unified standards are acting independently, which severely hinders the sharing and intercommunication of data in the big data environment.

2. Enterprises have concerns about the confidentiality and safe use of data. In the information age, data security and financial security are both important issues. The financial data of an enterprise is a business secret. Many corporate managers think that in the era of big data, the use of cloud accounting for financial accounting management can improve the efficiency of financial processing, but at the same time it will bring about data security and other issues, which makes them unwilling to use cloud accounting. Even in the era of big data, they are even more repulsive of cloud accounting, thus inhibiting the promotion and application of cloud accounting.

3. The construction of cloud accounting platform has not yet been able to adapt to big data requirements. The construction of the cloud accounting platform has high requirements for technology and capital, the research and development cycle are relatively long, and therefore there may be great potential risks. At present, there are certain differences in the service capabilities of cloud accounting service providers in various countries, and there is an imbalance in the level of cloud accounting platform construction. Developed countries are generally playing better than other countries. Taking China as an example, the development of cloud computing technology in China is still not mature enough, which also makes most of the cloud computing platforms come from other countries. Therefore, users often feel uneasy about the existence of economic data and accounting data in the cloud when using cloud accounting services. Moreover, the current lag in the development of the cloud accounting platform has

also brought greater constraints on the optimization and perfection of the accounting information system.

5. Suggestions

1. Establish data specification standards and continue to improve. At present, the telecommunications standardization organization of the International Telecommunications Union has focused on cloud computing-related technologies based on big data in its related standardization research work, which provides the possibility for the establishment of data standards in the cloud computing field. In the formulation of cloud accounting-related data standards, this article suggests that: (1) formulate basic standards as the normative general principles of the overall standard system, and establish technical standards and platform standards, especially for the storage, processing, and analysis of big data-related technologies and cloud accounting application platforms; (2) formulate the formulation of data security standards, support the data standard system through security and privacy standards, and effectively protect the data security of information users; (3) establish data application and service standards, and regulate the applications and services provided by the big data cloud accounting platform in terms of technology, functions, development, maintenance and management.

2. Improve data security processing capabilities. The safe work of cloud accounting requires the joint efforts of cloud accounting service providers and users. Relevant departments should guide cloud accounting users to use data encryption technology to achieve effective protection of accounting data and user privacy. For cloud accounting users, in the actual development process, it is necessary to strengthen the construction of internal control mechanism, strict internal examination and approval, to achieve effective protection of accounting data security, and effectively avoid the occurrence of accounting information leakage problems. In addition, relevant departments also need to continuously improve relevant laws and regulations, strive to maintain the security of accounting data, and further ensure the healthy development of cloud accounting from the legal and institutional aspects.

3. Strengthen the construction of cloud accounting platform. The government can play an important role in the construction of cloud accounting platform, especially in countries like China. The government can give full play to its functional role, guide and integrate resources, through the establishment of special projects developed by the cloud accounting platform, and actively promote the construction of the cloud accounting platform. During the construction of the cloud accounting platform, it is also necessary to continuously improve the accounting information system to promote effective integration with other information systems, comprehensively improve the level of financial decision-making analysis in various industries, and provide financial support for them.

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