Application and Thinking of Cloud Accounting in Accounting Informatization

Xiuming Wu¹ *
¹Financedepartment Criminal Investigation Police University of China, China

*Corresponding author e-mail: wuxiuming@cipuc.edu.cn

Abstract. The history of accounting basically comes into being with all the economic activities of human beings. In the past, our ancestors carved numbers and words on the rock wall. The most common thing was keeping accounts, such as what assets were available at that time, how to distribute them and how much was left, which is now called asset recording and asset distribution. With the development of the society and the refinement of the accounting work, the construction of accounting information has gradually become a hot spot in the industry, and is also the focus and development trend of the current accounting reform.

Keywords: Cloud Accounting, Accounting Information, Application

1. Introduction
In recent years, accounting information based on cloud computing virtualization technology has been paid close attention to by many enterprises. As early as the end of the 20th century, some foreign scholars began to analyze the concept and application of cloud accounting from the application of cloud computing, and the United States and Japan were the first two countries to get involved in this field. In the near future, accounting functions may be outsourced to specialized external companies, such as accounting firms and financial companies, just like IT technology. Companies cut the whole financial process into many segments, and only one segment (i.e., a business process) or some segments to the outsourcing company to do, this can streamline the staff, make the company more efficient.

2. Definition of cloud accounting and development of accounting informatization
The application of cloud computing technology to the field of accounting is "cloud accounting ", specifically: a virtual accounting information system based on the Internet that provides accounting, accounting management and accounting decision-making related services to enterprises. China began to introduce the concept of accounting computerization in the 1980s and carried out the pilot work of enterprise accounting computerization, and then developed the accounting software development and management company [1-3]. With the development of economy, technology and enterprise resource plan (that is, ERP), it provides a new impetus for the evolution and change of accounting informatization. The difference between traditional accounting and cloud accounting is also increasing [4-8].
Table 1. Comparison of traditional accounting informatization and cloud accounting.

| Main aspects            | Traditional accounting information                                      | Cloud accounting                                                                 |
|-------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| System upgrade          | Need enterprise technicians to upgrade and maintain                       | System white-moving upgrade, no upgrade fees, maintenance fees, daily use of new functions, save effort |
| System settings         | A series of cumbersome initialization settings are required                | Initialization fast, easy to use, completely free of cumbersome process, intelligent operation, quick record, friendly interface |
| Availability of financial data | Financial data can only be accessed within the company                  | Real-time Invocation of Enterprise Financial Data                                |
| Rates                   | Need to purchase databases, servers and software                           | Renting a cloud accounting platform without paying or paying very little          |
| Manning level           | Need for specialized accounting by finance staff                          | Can realize the integration of financial business, input documents at the same time to complete the accounting process |
| 信息安全性              | General data stored on the company's internal servers, security is high   | Data stored in the cloud, facing certain risks                                    |

In 2010, users and other management software providers have made the strategic layout of cloud accounting, and in 2011, Cheng Ping has studied the application and development of cloud accounting. Therefore, cloud technology and accounting informatization are more and more closely combined, and the development and application of cloud accounting promote the development of accounting informatization to a new stage.

3. Structure system of cloud accounting in accounting informatization
The application of cloud accounting involves two participants, cloud accounting provider and cloud accounting application enterprise. From the perspective of cloud accounting providers, it needs to establish the hardware facilities and software systems needed for accounting information systems, which are provided in the cloud according to the different needs of enterprise users: virtual hardware resources, network servers, data resources, development resources, development platform development kit, accounting application / management system and so on. From the perspective of cloud accounting application enterprises, enterprises pay corresponding fees to cloud accounting providers according to their actual needs to obtain cloud services and technical support related to accounting information. Enterprises only rent accounting information software or virtual hardware system according to demand, and do not acquire ownership. There is no need for enterprises to divert energy, invest money and material resources to purchase and maintain hardware facilities, upgrade and update software, solve technical problems. More specifically, the cloud accounting architecture consists of five basic levels: application software, platforms, data resources, hardware virtualization, infrastructure, and each level corresponds to the provider's corresponding services, as shown in figure 1 below.
Figure 1. Architecture of cloud accounting.

The application software is the accounting related management system of cloud accounting, which is provided to the enterprise by the provider through the network by charging the lease fee, and is responsible for the upgrade and maintenance of the accounting or management software in the cloud. The platform is the development platform of accounting software or management application, which is constructed and provided by the provider. After the enterprise completes the development of accounting software or management application, the provider will be responsible for the subsequent operation and management. Data resource is a service that providers provide integrated accounting information and economic information access services for enterprises, and can also provide services for enterprises to mine potential value information in data. Hardware virtualization is to provide network servers to help enterprises build server clusters, form elastic computing power, and achieve better scalability and efficiency. Infrastructure service is a virtual hardware resource that provides virtual machine or storage resources to enterprises. Enterprises can build their own accounting information application system through network leasing. The above five levels constitute a complete cloud accounting structure system, and these five levels of cloud accounting services are established according to the differentiated needs of different enterprises. Although the service mode of the provider is different, in the end, the enterprise can only obtain the accounting software or related management system through the network lease on the basis of not buying the server, the network equipment and the storage equipment. That is, as long as you connect to the network and access the portal, you can realize "mobile office ". Whenever and wherever you can access the enterprise accounting information system, carry out accounting work, and obtain the information needed for the enterprise financial decision.

4. Application of cloud accounting in accounting informatization

4.1. Construction of accounting informatization
The construction of traditional accounting information system needs to purchase accounting software, purchase server construction cost is high and its scale is limited, so it is accompanied by a series of problems such as long construction period, poor operation and difficult to improve the phenomenon of information island. When cloud accounting is applied to accounting information, enterprises can obtain cloud services by purchasing different levels of services according to actual needs, without a large amount of capital investment to purchase and later maintain the infrastructure such as servers, computer room equipment and so on.

4.2. Accounting information later maintenance
The application of cloud technology solves the problem that the traditional accounting information system consumes a lot of manpower and material resources in the maintenance and renewal of
hardware facilities and the upgrading of software. The application of cloud accounting is essentially leasing services, enterprises spend less money to obtain the right to use rather than ownership, enterprises do not need to be responsible for later maintenance, upgrading, troubleshooting, enterprises only need to connect to the Internet, access to the unified information portal can use the accounting system or management system.

4.3. Interactive sharing of information
Under the traditional accounting information system, accounting is limited by computer room, and the feedback of accounting information also needs a certain time. The traditional computerized accounting can not solve the problem that the accountant is not in the enterprise and the financial work can not continue. The parent company and subsidiary company should set up accounting information system separately and spend more money to build a set of infrastructure. The application of cloud accounting to accounting information not only solves the spatial problem of accounting information exchange and sharing, but also effectively solves the time problem of accounting information exchange and sharing, that is, accountants can carry out accounting work when they are away from enterprises.

4.4. Data processing applications
The application of cloud accounting data resources provides a convenient, efficient and reliable way for enterprises to obtain internal integrated accounting information and a large number of external related economic information. Providers also provide services for enterprises to mine potential value information in data. For the long-term development of enterprises to provide more support. Because of the application of cloud accounting, enterprise accounting informatization enhances the ability of collecting, integrating and processing information, and strengthens the sharing and cooperative processing of internal and external information.

4.5. Accounting information management
The application of cloud accounting to enterprise accounting information practice effectively improves its operation quality and efficiency. Because of the efficient processing of cloud technology, accounting practitioners have more time, energy and opportunity to cultivate the ability of integrating information resources and enterprise information system, and to invest more people in enterprise financial management and strategic management. Cloud accounting providers also provide professional, highly reliable and practical financial management services to help enterprises make business development decisions more effectively and avoid business risks with the help of new technologies and new developments. The management problems existing in the production and operation of enterprises can also be solved in practice. The cloud accounting provider provides the application technical support and the related instruction for the enterprise accounting informationization, provides the help for the enterprise accounting profession development progress.

5. Challenges and countermeasures of cloud accounting application
The application of cloud accounting to accounting informatization has significant advantages and has brought positive influence to enterprise management, but this application also puts forward new challenges to the operation of enterprise accounting informatization because of the technical limitation and application characteristics of cloud accounting.

5.1. Data security
Although under the cloud accounting application, the enterprise accounting data is stored in the cloud, and the professional technical team is responsible for the operation, maintenance and data security, but the enterprise can not completely control the accounting data after uploading the cloud, which makes it difficult for the enterprise to rest assured. Especially the storage of core data. With the application of cloud accounting, the safety protection consciousness of enterprise accounting practitioners may be difficult to follow up, which makes enterprise accounting information face security risks. Enterprises
can choose to accept the core data under the control of enterprises, that is, according to the security considerations can choose different data stored in the enterprise's own data center or a unified cloud. At the same time, pay attention to enterprise accounting practitioners safe operation information system training.

5.2. Reasonable selection of providers
There are many providers engaged in cloud accounting services. Enterprises are faced with the important problem of how to select from the vast number of providers to ensure the effective operation of enterprise accounting information. When selecting a provider, an enterprise should carefully examine the relevant factors such as its size, experience, professional technical capability, security, advantages and disadvantages of providing services at all levels, industry reputation, price, etc., to synthesize the business development needs and select the appropriate cloud accounting provider. When selecting service mode, enterprise users should analyze their own management needs and select services according to the actual situation of enterprises. For example, small and medium-sized enterprises with simple business processing and small business volume can choose application software services, that is, paid rental cloud accounting applications, data stored in the same cloud. If the business processing is complex, the business volume is large, and the technical team and infrastructure are available, the larger enterprises can choose to deploy the cloud accounting application in the internal data center of the enterprise to better control the core data. After the application of cloud accounting to accounting information, it will collide with the previous business process of the enterprise. Enterprises should be based on the current situation of management, scientific, rigorous, standardized, orderly configuration, optimization of business processes or restructuring. In this process also according to the enterprise business process appropriate adjustment cloud accounting system (4) network transmission delay and application effectiveness cloud accounting application to enterprise information development depends on the Internet, in the actual application of enterprises data processing transmission speed is largely limited by network broadband, transmission delay and difficult to control. Enterprises should choose the accounting information application suitable for running in the cloud, and realize the transformation from the existing accounting information system to the cloud efficiently. Under the application of cloud accounting, mastering the operation of software is no longer the most important content, synthesizing financial knowledge, management knowledge, innovation ability, network security consciousness; understanding the business process of accounting application / management system, configuring and optimizing business process or reforming and reorganizing business process is a more important ability that accounting practitioners need to master. When enterprises introduce cloud accounting talents, they also need to train the existing accounting practitioners to improve their comprehensive quality and adapt to the application of cloud accounting.

6. Conclusion
The external economic environment in which modern enterprise organizations are located is complex and changeable. In order to adapt to this environment, enterprise organizations must not only understand their own business activities, but also be able to assess the situation of the external environment. Adequate information must be an information system composed of information input, information conversion and information transmission. To the enterprise, this information system is the management information system. Cloud accounting information system can set of accounting, accounting management and decision support into an organic whole, and compared with other subsystems in the management information system and enterprise organization outside of the relevant economic information system, realize the seamless connection to a variety of resources, a variety of information fusion, through the cloud accounting application, we can say, the enterprise organization has achieved the accounting information, accounting information instead of the computerized accounting information system will be the inevitable trend of development.
References

[1] Cheng Ping, he Xuefeng. Application of "Cloud Accounting" in Accounting Informatization of Small and Medium-sized Enterprises Journal of Chongqing University of Technology (Social Sciences), 2011.

[2] Guan Shuo. Cloud accounting under the enterprise information security problems and countermeasures fat business accounting, 2017,(5).

[3] Cheng Ping. Tax Administration of Real Estate Development Enterprises Based on Cloud Accounting in big data era — — — Take A Group as an example Friends of Accounting, 2017,(08).

[4] Wu Sheng. Evaluation of Cloud Accounting Service Architecture: Quality Attributes and Evaluation Methods [J] and Monthly Journal of Accounting, 2017,(10).

[5] [J.] on Enterprise Financial Decision in the Age of Big Data and Cloud Accounting Cheng Ping. Wang Xiaojian. Friends of accounting. 2015(02).

[6] Application of "Cloud Accounting" in Accounting Informatization of Small and Medium-sized Enterprises [J] A Brief Discussion Li Jing. Mall Modernization, 2015(02).

[7] A Study on the Advantages and Disadvantages of Cloud Accounting in the Application of Accounting Informatization J]. Small and Medium-sized Enterprises Pei Chunwei, Shandong Textile Economy, 2014(08).

[8] Effects of Cloud Accounting on Small and Medium-sized Enterprises and Supplier Choice [J] Cheng Ping, Zhao Zixiao, Friends of Accounting 2014(12).