Analysis on Enterprise Accounting Information Security in the Cloud Environment

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Abstract: The application of cloud accounting in enterprises improves the efficiency of accounting processing, but at the same time, the accounting information of enterprises is also facing security problems.In order to study the application status of cloud accounting in China and the risk problems faced in its development, this paper points out the consequences of the risk problems, and puts forward corresponding countermeasures to provide reference for enterprises, improve their own management and promote the promotion of cloud accounting. Through reading and analyzing the reference literature and browsing the authoritative information of the website to obtain the relevant content of cloud accounting, and through communication with the financial and related personnel of the unit, we know that the security problems of accounting information faced by enterprises in the cloud environment mainly come from cloud storage, system operation and so on. Based on the analysis of the causes of various security problems faced by enterprise accounting information under cloud environment, this paper puts forward some pertinent measures, such as perfecting laws and regulations, building network security in cloud environment, training and management of comprehensive talents in cloud accounting, in order to provide reference for ensuring enterprise accounting information security under cloud environment and promote the popularization process of cloud accounting in enterprise application.

1. Introduction

Cloud accounting is the product of the application of cloud computing in the field of accounting under the background of the Internet, and has gradually become the mainstream development trend in the process of enterprise accounting informatization. Cloud accounting together sharing, high efficiency, low cost and is not restricted by time and space, etc, are popular enterprise management personnel and widespread application, but cloud accounting application involves all kinds of information security issues are still in the process of nots allow to ignore, otherwise it will lead to the loss of the enterprise, thus restricting accounting to the further development of the cloud. Therefore, this paper analyzes the security problems faced by enterprise accounting information in the cloud environment, and puts forward effective preventive measures.

2. Overview of Cloud Accounting

The traditional accounting information operation mode is that enterprises install the accounting software products purchased in the computer terminal for use, while in the cloud accounting environment, enterprises import accounting information into the network, instead of purchasing software products, they purchase cloud technology services provided by online suppliers. At this time, the accounting work is actually completed in the virtual accounting information system built by the cloud technology with the accounting functions of enterprise such as accounting and supervision management. At this time, enterprise information construction is mainly carried out through outsourcing mode.

The advantage of remote control of cloud accounting makes it become a sharp tool of modern

accounting information management. In the cloud accounting environment, accounting information can be Shared in the "cloud". Accountants can use smart phones, personal computers or tablets and other terminals to process business at any time without time or space restrictions, thus greatly improving work efficiency. On the other hand, managers can timely collect financial and non-financial information, and conduct data fusion and mining analysis, so as to timely and comprehensive risk prediction and control management of enterprise operation. Compared with the accounting informatization in the traditional environment, the accounting informatization of cloud accounting has the following differences:

Tabel 1 Comparison of Traditional Accounting Informationization and Cloud accounting

The main aspects	Traditional accounting informatization	Cloud accounting
System upgrade	Needs the enterprise technical personnel to take the initiative to upgrade the maintenance	Automatic upgrade system, no upgrade fee, maintenance fee, every day to use the new features, worry and effort
System Settings	A cumbersome set of initialization is required	Initialization fast, easy to use, completely free from cumbersome processes, intelligent operation, fast record orders, friendly interface
Ease of use of financial data	Financial data can only be accessed within the company	Real-time access to enterprise financial data
Charge	You need to purchase databases, servers, and software	There is no need to pay or pay a small fee to rent the cloud accounting platform
Staffing	Financial staff are needed to keep the books	It can realize the integration of financial business and complete the accounting treatment while entering documents
Storage	General data is stored in the company's internal services on	Data is stored in the cloud

Although the development of cloud accounting can bring a lot of convenience for enterprise accounting information management and is favored by small and medium-sized enterprises, at the same time, many enterprises still hold a wait-and-see attitude on whether to adopt cloud accounting, which is mainly due to many security issues. Current cloud accounting industry norms and standards are not perfect, privacy security is not guaranteed. On the other hand, in the cloud environment, a large amount of accounting data is stored in the cloud of the same service provider. Once the cloud storage center is attacked or the information is leaked, the enterprise will be greatly affected. Security issues have undoubtedly greatly limited the in-depth development of cloud accounting among enterprises. Therefore, it is necessary to fully clarify the security of enterprise accounting information in the cloud environment and formulate relevant countermeasures, so as to gradually improve the security of enterprise cloud accounting information.

3. The Security of Cloud Accounting Information

3.1 Cloud Storage Security.

In the cloud environment, the accounting information that enterprises call and process is mainly stored in the network cloud provided by the service provider, but the enterprise is not clear about where the accounting information is stored. However, cloud accounting service providers have special rights in this process. If they lack the awareness of security responsibility, they may cooperate with others to illegally tamper with or disclose accounting information. Although data encryption technology is adopted to solve the security problem of information storage, the security of stored accounting information is threatened by the reliability of encryption algorithm and the soundness of data management of cloud accounting service providers. For enterprise users,

sometimes because of lack of professional knowledge, they will entrust the service providers to keep the secret keys, which increases the difficulty of security management.

On the other hand, cloud accounting is inseparable from the network, but the network is open. Although the network risk prevention and control technology continues to develop, and the network environment tends to be standardized, but the technology and system is not perfect, can not completely eliminate all the risk of hacker invasion or virus infection, cloud accounting information is still being stolen, tampered with, leaked and other security threats. And although there is data backup, the corresponding paper backup is usually incomplete, and once the cloud fails, it may bring risks such as information loss. Meanwhile, network stability and operational robustness of cloud accounting service providers will bring corresponding security risks.

On the one hand, it is because the network specification and technology level need to be further developed. On the other hand, the professional ability, moral quality and other interests of service personnel, such as hacker attacks, will pose a threat to the security of their cloud information storage.

3.2 System Operation Safety Problem.

Accounting information is usually transmitted within the enterprise without encryption processing, or encryption processing algorithm is relatively simple. On the other hand, when the enterprise's accounting information is transmitted to the cloud, it not only requires the cloud accounting service provider to provide high-level encryption algorithm, but also requires the user to set a secure password for verification. The uploading, storing and downloading of information need to use the network for transmission. If the network is not stable, the diversification of information flow will easily make the information subject to risks such as interception, tampering and even deletion in the transmission process.

Accounting information is an important trade secret of an enterprise, and financial operation personnel and related system management personnel become an important part of the confidentiality work. Once the person who does not have the authority illegally obtains the operator's login information, and carries on the malicious operation, then the loss which causes to the enterprise will be huge. The login time and space of cloud accounting are not limited. If there are problems such as poor professional operation ability of financial personnel, insufficient awareness of confidentiality, overly simple password, less role setting, or not careful permission setting, etc., they will easily lead to system risks. If the system management personnel is not clear about the management responsibility, the system account for cross-use, mutual use of account password for pseudonymous operation, then it will also bring risks to the system operation.

In terms of system operation, if there are too many users and too many concurrent operation tasks, it will cause system crash and other operation problems, thus reducing the operation speed and causing certain security risks.

4. Strategies for Cloud Accounting Security

4.1 Improvement of the Legal System in the Cloud Environment.

Accounting in our country belongs to the early stage of cloud, relevant laws and regulations is not perfect, relevant departments should strengthen the cloud environment accounting information as soon as possible in each processing link unified industry standards and the establishment of institutional constraints, proposed targeted accounting standards, operating norms, the accounting information security laws and regulations as well as supplier qualification standards, maintaining the order of modern accounting industry and form a healthy competition environment.

4.2 Network Security Construction in the Cloud Environment.

Cloud environment for the construction of the network security depends on the development of high-tech means, can access to information and download permissions Settings, strengthen the security management of the computer, the accounting data backup regularly and long-distance

server save, important to encrypt file access and transmission, and improve the safety level of password, set up efficient virus firewall and related management mode can even refer to the banking system, special configuration optimal shield for operating personnel, etc. At the same time, the cloud data is monitored for immediate risk, the threat identification program is isolated for processing and feedback, and the daily business exceptions are collected for hidden dangers and timely warning. On the other hand, service providers can also develop customized security services according to the level of enterprise information security needs.

4.3 Cultivation and Management of Comprehensive Talents in the Cloud Environment.

In the cloud environment, enterprises should conduct knowledge and technical training for relevant personnel to ensure proficiency in correct operation methods and avoid operational errors. At the same time, enterprises should strengthen the management of personnel information, conduct real-name authentication and lifelong credit management, and punish and label the illegal behaviors of dishonest personnel. At the same time, enterprises have incorporated cloud technology into the internal control system of enterprises. When setting up posts, they should supervise the authority distribution of related posts, have strict approval and processing procedures for business operations, and put the responsibility on people.

5. Conclusion

The application of the cloud accounting in the enterprise to improve the efficiency of the accounting treatment, but at the same time, the accounting information of enterprises in such aspects as the cloud storage, system operation is facing security problems. Only by improving the laws and regulations, the construction of cloud environment network security, the training and management of cloud accounting comprehensive talents, can we take corresponding measures.

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