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Analysis on the efficiency of cloud computing in the paperless field of customs clearance

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Abstract

With the advantage of being the world's second most populous country, along with the improvement of science and technology, and driven by the two factors of promoting the development of foreign trade and stimulating domestic demand, China's economic growth speed and scale are constantly expanding. The manufacturing in China has gone all over the world, from all kinds of basic food to clothing and department stores, from overseas aid projects galloping like lightning Chinese high-speed railway has appeared in every corner of the world. China is now the second largest economy after the United States. Along with the Internet era, data exchange becomes more and more frequent, the global economy develops rapidly, trade facilitation, logistics modernization, and technology informatization greatly promote the trend of world economic globalization and regional economic integration. Imports and exports, one of the drivers of China's economic growth, have seen a surge in business. The customs, an important link in the foreign trade chain, shoulders the heavy responsibility of guarding the country. It has become the solemn mission of the Customs to collect, analyze and feedback data by using the function of cloud computing, so as to focus on the stable development of current trade and forecast future economic growth. Through cloud computing function, customs uses paperless cloud computing technology for customs clearance, which on the one hand improves efficiency. It not only saves the customs clearance time for import and export enterprises, but also improves the speed of customs inspection. On the other hand, the cloud-computing paperless customs clearance can also help the customs to strengthen the prevention of smuggling management, strengthen the prevention of smuggling risks, and prevent security accidents caused by concealing. Finally, it can realize the integration of China's customs clearance management and international customs management, laying a foundation for the unification and standardization of the world's customs management rules.

Introduction

Paperless Customs Clearance by cloud computing refers to the electronic Customs Clearance process of customs declaration data for import and export enterprises with good credit at grade A or above according to different credit levels of import and export enterprises through big data cloud computing function. It is defined by the paper declaration for import and export inspection implemented by China Customs before 2012. In July 2012, the General Administration of Customs of China issued the Implementation Plan of Paperless Customs Clearance Operation (Trial), whose essence is to utilize the memory and storage of cloud computing and automatic analysis function to cooperate with commerce, taxation, foreign exchange administration, commercial banks and other departments on the basis of the single window of China International Trade and the customs data management system. To share electronic data, implement cross-departmental, cross-regional and cross-industry electronic supervision of import and export enterprises.

The Customs Clearance method of checking the Customs Clearance data declared by the enterprise and automatically sending the verification processing result. At present, all customs in China have implemented paperless Customs Clearance.

Paperless Customs Clearance realizes scientific and efficient customs management. Through big data networking, the customs has imported enterprise star official information, mainly enterprise reputation and other related data into the supervision system. In the process of Customs Clearance, electronic data is used as the basis for comparison, combined with enterprise credit, to implement effective non-contact supervision and Customs Clearance. The paperless procedure greatly simplifies the procedures and time in the process of Customs Clearance, ensures the smooth flow of enterprise products in and out of transit, further shorens the time of import and export customs inspection, and greatly reduces the transportation costs and tariff costs of enterprises. At the same time, the scale and management capacity of the customs' own resources have also been effectively used to greatly improve its efficiency. Through paperless Customs Clearance, information sharing between various government departments and enterprises is realized. Supervisory departments can grasp the import and export information and tariff payment information of enterprises through information flow, and enterprises can query the status of goods Customs Clearance through electronic data and network platform. The controllability of time provides strong support for subsequent sales. It accelerates the capital flow of enterprises and improves the overall management efficiency of customs and enterprises.

Materials and Methods

Compared with the traditional paper-based Customs Clearance system, from the perspective of enterprises, cloud computing paperless Customs Clearance system can speed up Customs Clearance, reduce Customs Clearance costs, promote enterprises to pay attention to their own credit construction, take the initiative to abide by the law, eliminate or reduce illegal behaviors, lay a legal foundation for the long-term healthy development of enterprises, and cultivate their own legal thinking. Promote the harmonious development of society and the realization of the process of the rule of law. From the perspective of customs, the cloud-computing paperless Customs Clearance system can reduce the Customs Clearance pressure, enhance the customs risk analysis and discrimination ability, concentrate superior resources, and strengthen the risk assessment and supervision of high-risk goods. At the same time, through cooperation with other important government departments, electronic information exchange and cloud computing can also help the customs to achieve paperless Customs Clearance. At the national level, the cloud computing paperless Customs Clearance system stores the export information, capital flow information, cargo logistics and other electronic information collected by the customs to the single window data center of China International Trade, providing the government regulatory authorities with cross-departmental, cross-regional and cross-industry simple university verification methods and data comparison evidence, and improving the verification ability.

The traditional way of Customs Clearance requires the customs personnel to manually compare with the data, which increases the pressure of customs work. Due to the personnel and equipment in different customs areas, the Customs Clearance time of enterprises is different. In the peak export season, such as Christmas, New Year and other times, in the case of Customers not only to clear inventory at the end of the year, but also to seize the market, the order must have a strong timeliness. Therefore, the queuing time for enterprises to recover the payment will be relatively extended, that is, the time delayed in logistics is the time for enterprises to pay in advance, which changes from time cost to economic cost. Especially for many enterprises with large import and export amount and frequent Customs Clearance time, the capital cost of enterprises will be greatly increased. The customs needs to manually check the declaration information of enterprises and goods inspection, which greatly restricts the import and export of enterprises.

Cloud computing paperless Customs Clearance has changed the original operation mode of on-site submission of paper customs declaration documents. From enterprise declaration to cargo release, all the customs declaration forms and accompanying paper documents are transformed into electronic data, and enterprises only need to complete the whole process of declaration and Customs Clearance online. Compared with traditional Customs Clearance, paperless Customs Clearance allows companies to make "free" declarations without being subject to restrictions on working hours and locations. For the customs declaration without license, no tax, no control, truly realize 24 hours of unattended Customs Clearance, greatly reduce the customs site and queue waiting time, especially for the risk identification of "low risk rapid release" customs declaration, enterprises do not go out, sitting in front of the computer, can complete all Customs Clearance procedures.

After the implementation of paperless customs declaration, more than 60% of the electronic data submitted by enterprises will be released in a short time after passing through the cloud computing system. The specific release time depends on the reputation of the enterprise and the industry classification. For example, the fastest Customs Clearance for air cargo declaration can be completed within 2 hours, and the fastest Customs Clearance for sea transportation can be completed within 7 hours. The fastest rail transport can be cleared within 24 hours. The improvement of the overall Customs Clearance time is mainly due to the application of cloud computing and big data, but also related to the classification supervision mode of the customs and the good reputation of the enterprise. The remaining 40% of the data is contrary to common sense by big data analysis, which may be the amount of money, or the name of the product, or the customs classification code is in doubt and needs manual verification. Customs supervision from the previous "product" supervision to the current "enterprise" supervision, giving more autonomy to enterprises. The enterprise is not only the participant of Customs Clearance limitation, but also the decision of Customs Clearance limitation, and the beneficiary of Customs Clearance limitation. This change in regulatory approach is a fundamental change, mainly due to the development of China's big data industry and the rapid improvement of the overall effectiveness of the government. Cost saving of enterprises mainly involves time saving and cost saving caused by time saving, which is mainly reflected in the time of capital collection and the payment of customs duties. Therefore, through the comparison of cost before and after Customs Clearance of the same company and the combination of theoretical analysis, empirical analysis and

value analysis, it can be seen that with the implementation of paperless Customs Clearance, The frequency of imports and exports by Chinese enterprises is increasing significantly. When the Customs Clearance cost of the exporting country is high, enterprises will implement the import strategy of "less times and more quantity" and choose a lower import frequency. When the Customs Clearance cost of the exporting country is low, enterprises will implement the import strategy of "several times and a small amount" and choose a higher import frequency. The data that China ranks the first in the world's total import and export volume and the second in the world's export volume have told the world that the net export frequency of China's export enterprises is significantly increasing, and the Customs Clearance cost of enterprises is further decreasing.

Combined with the theory that cloud computing is widely used in global economic development, through the comparison of data before and after the implementation of paperless Customs Clearance in cloud computing, under the background of the significant improvement of the practical inspection ability of China Customs, it is proposed that the implementation of paperless Customs Clearance in cloud computing plays a vital role in promoting the value-added of enterprises, which is a kind of national economy overall good, internationalization, active participation in international cooperation and common development The outstanding embodiment of the exhibition.

In the composition of import and export of enterprises, there are relatively many procedures and costs involved. The cost described in this paper is the process from import and export goods have been reprinted in the container waiting for Customs Clearance to smooth Customs Clearance, including the time for the customs broker to submit information, waiting for approval and query results. Rather than measuring the traditional transit time from factory to shipment. Because of the different modes of transportation, the Customs Clearance time of the same batch of goods is completely different.

Discussion

What are the advantages of paperless Customs Clearance in cloud computing?

In the process of import and export declaration, the customs needs to examine at least 18 kinds of export documents and a variety of Customs Clearance and commodity inspection documents for each transaction, and also needs to stamp the seal to complete the Customs Clearance, which is time-consuming and laborious. In the process of inspection, it will even take more time and occupy more customs resources due to information communication. By comparing the electronic data of declared goods, the system automatically reviews and releases low-risk goods, reducing manual intervention and greatly improving the efficiency of customs review. At the same time, the system will automatically send the electronic receipt to the customs supervision place and the consignee or consignor. While reducing the corruption caused by human factors, the system will further clarify the reasons for supervision and matters needing to be corrected to improve the efficiency of Customs Clearance. Simplify the Customs Clearance process, shorten the stay time of goods in the supervision place, reduce the demurring fees for enterprises, further reduce the cost of Customs Clearance, increase the profit margin of enterprises, and strengthen the ability of enterprises to participate in international competition. At

present, all the customs offices under the jurisdiction of the General Administration of Customs of China can complete the inspection and release of import and export goods within 3 minutes at the earliest, except for special controlled goods. The implementation of the cloud computing paperless Customs Clearance system in China has changed the traditional supervision behavior of the customs to the cooperation behavior between the customs and law-abiding enterprises, thus achieving a win-win and stable development situation for import and export enterprises and the customs.

What are the preconditions for implementing paperless Customs Clearance through cloud computing in customs?

Due to the popularity of the Internet and the continuous improvement of Internet speed and the rise of various e-commerce platforms, consumers have put forward new requirements for the speed of product logistics, and the methods of payment and documents in international trade have changed greatly. The traditional way of sending paper shipping documents for collection has been unable to adapt to the rapid development of retail and logistics industry. With the intensification of competitiveness among enterprises, more and more import and export enterprises have realized the electronic management of raw material purchase, production site management, logistics and warehousing, and the traditional paper receipt of foreign exchange documents, such as commercial invoice, packing list, certificate of origin and other correspondence vouchers related to collection, are also sent through electronic data. Including foreign trade enterprises, modern logistics enterprises, inbound and outbound warehouses of port terminals and container yards, banks and the State Administration of Foreign Exchange have all implemented electronic networking with the single window of China's international trade, laying a prerequisite foundation for the implementation of cloud computing paperless Customs Clearance.

The implementation and improvement of Electronic Signature Law, Customs Law and other relevant regulations also provide an important legal basis for customs to implement paperless cloud computing. At the same time, the development of IT industry, the revitalization of e-commerce industry, the Internet of Things, blockchain technology to promote the supply chain economy, etc., all promote the development of cloud computing. Faster cloud computing can conduct rapid and comprehensive analysis of customs data, and determine the authenticity and rationality of electronic information of Customs Clearance by comparing and searching a large number of Customs Clearance information at home and abroad. Visualization analysis and predictive analysis provided by the cloud computing system improve the transmission capability and correctness of data, and provide data basis for the normal operation of the customs system. At the same time, the data analysis function of cloud computing not only improves the Customs Clearance information management mode, but also makes use of the huge database of cloud computing to optimize the data, accelerate the analysis of the Customs Clearance process of import and export enterprises, and screen the information needed for Customs Clearance, so as to improve the accuracy of customs paperless clearance and provide favorable data guarantee for the normal and rapid development of national import and export trade.

Is there a shortage of cloud-computing paperless Customs Clearance?

Risk analysis. In the process of paperless Customs Clearance through cloud computing, customs should constantly strengthen the risk analysis of Customs Clearance. It is necessary to update the credit rating of enterprises in time based on relevant feedbacks from the State Administration for Industry and Commerce, banks, State Administration of Foreign Exchange, State Administration of Taxation, etc., list law-abiding enterprises as key objects of support, increase the punishment for illegal activities, increase the cost of illegal activities, and promote the honest operation of enterprises. At the same time, the customs can also use the cloud computing function to pay attention to the import and export trends, blacklist high-risk goods, sources of high-risk goods and import and export enterprises in violation, implement the principle of mandatory inspection in Customs Clearance, and reduce the risk of entry and exit. Therefore, the customs must increase the capital and technology investment of cloud computing on the basis of the present and constantly expand the application field in the customs.

The validity of electronic evidence. From the legal point of view, the punishment of illegal enterprises is one of the important ways of customs enforcement activities. The most important thing is the process of collecting solid evidence before the customs imposes a penalty on an illegal company. Because the paperless Customs Clearance process of import and export enterprises will involve the consignee, consignor, customs declaration, logistics company, shipping company and other departments, so the paperless Customs Clearance data collected by cloud computing will involve the modification, deletion, resending, electronic data reception, storage, storage time, extraction and other processes of the definition, only to vigorously develop the cloud The screening function and extraction function of calculation, combined with the relevant provisions of the Electronic Signature Law, should be continuously improved to better serve the customs.

Potential problems of cloud-computing paperless Customs Clearance

In daily operation, import and export enterprises will change the behavior of customs declaration. In this program, it is impossible to predict whether the enterprise will make subjective or objective errors. The goods can be checked out before they have not been cleared. However, the application for modification of customs declaration after paperless Customs Clearance is inconsistent with the speed and timeliness of paperless Customs Clearance. This is mainly reflected in the contradiction between the timeliness and accuracy of Customs Clearance data and the lag of verification. Since the declaration data relates to the collection of customs duties and the amount of export tax rebates, all government departments will maintain a cautious attitude when it comes to financial information. In addition, the application for modification of customs declaration after Customs Clearance requires the application of the business unit and gradual approval. When the amount involved is large or the customs code and product name are modified, it will also involve the on-site inspection of the customs or tax department. Both the government and enterprises bring a greater workload. Due to the nature of big data networking, enterprises will modify the declaration form, and finally they will be impressed by the timeliness and correctness of the

statistical results of the statistical department. The root cause of this phenomenon is that in the process of Customs Clearance, the audit is mainly based on the reputation of the enterprise and the existing data in the big database. The rapid electronic audit and clearance and post audit means that the amendment of the customs declaration will cost a great deal of time. The main way to solve the problem is for import and export enterprises to strengthen self-inspection, in strict accordance with the import and export response process and customs regulations, in accordance with the principles of conformity of goods documents, documents and declaration, declaration and export, in the export declaration before the multi-step self-inspection.

In addition to Paperless Customs Clearance, China Customs has also promulgated relevant regulations to promote the growth of China's foreign trade

In addition to paperless Customs Clearance, the Chinese Customs also introduced some measures to save costs and reduce financial pressure in import and export according to the nature of enterprises under its jurisdiction. For example, customs guarantee payment: The customs provides enterprises, especially large and medium-sized enterprises with good credit, with a 2-3 month grace period for tax payment by setting the guarantee method of banks and other third-party financial institutions, allowing enterprises to take delivery of goods first and pay the tax to the Customs before the end of the guarantee period. If an enterprise has real difficulty in providing bank guarantee, it may, upon approval, pledge goods or other assets; The customs shall coordinate the verification of export manifests with the customs at the places of departure and departure of export goods, improve the efficiency of examination and approval of tax refund documents, and ensure that enterprises can obtain tax refund in time; In addition to normal working days, the customs also provides enterprises with weekend and holiday appointment overtime service, in addition, will further promote the import manifest confirmation operation in advance, to ensure that import enterprises "declaration in advance, goods upon arrival release". Import bulk cargoes will be inspected and released alongside ships, allowing unloading and release by means of ship-to-ship docking and vehicle-to-vehicle docking, so as to improve the efficiency of Customs Clearance for enterprises. The efficient link of Chinese customs further promotes the import and export power of Chinese enterprises.

Conclusion

The implementation of paperless Customs Clearance using cloud computing is not only a major reform in the field of customs operations in China, but also will have a far-reaching impact on the legalization of electronic data evidence of customs enforcement procedures and international customs cooperation. We need to make it clear that the customs should implement paperless Customs Clearance through cloud computing, which not only saves costs for enterprises, effectively improves the efficiency of customs and improves the quality of import and export trade, but also ensures the steady development of international trade and promotes the strong growth of national economy. At the same time, it should be made clear that this is only part of the reform of customs operations. Only by making full use of the huge functions of cloud computing can enterprises achieve better and healthier development and provide better services for the

society. Only by strengthening international exchanges and cooperation in cloud computing technology can we achieve fair trade and peaceful development in the world.

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