Impact of Cloud Computing on E-Commerce

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Abstract— Cloud computing has been one amongst the foremost modern topics on data technology since it had been planned by Google in 2007. inside the past years, cloud computing has become from a theoretical conception into the applications in many industries like telecommunication and a focus. Inevitably, its influences on entirely totally different industries have to boot attracted a great deal of attention. supported the literature review, this paper mentioned but the conventional E-commerce businesses and trade were influenced by cloud computing in technical style, service modes, and so the commercial chain. Besides, it analyzed the driving-forces that junction rectifier to the changes in E-commerce inside the cloud era. Finally, it complete that on condition that the E-commerce enterprises involved cloud computing inside the business strategy and established the core competencies, could they notice the property development inside the cloud era.

Keywords: Cloud Computing, E-Commerce

I. INTRODUCTION

Since it had been proposed by Google in 2007, cloud computing has attracted tons of attention. Cloud computing has developed quickly from a theoretical concept to the important applications within the past few years. It enables dynamic computing capacity, storage capacity, network exchanging capability, and knowledge service capability.

Cloud computing serves the users as "pay-as-service", which supplies and delivers the end-users with IT services supported their demand. E-commerce may be a typical industry that's being influenced inevitably by the features of cloud computing. Here we discuss the effect of cloud computing on traditional E-commerce respectively from the technology, service, and industry chain and present the required suggestions on the event of E-commerce businesses within the cloud era.

II. LITERATURE REVIEW

Since it emerged, the influences of cloud computing have been discussed in different types of publications. This paper draws on the potential benefits of the educational information presented by cloud computing. there is meaning in cloud computing applications. think about the many influences of cloud computing on systems and introduce how to replace a new cloud computing platform. This paper describes the positive effects of cloud computing in support of the cases of the most important companies and organizations like Google, which make the points more convincing.

Problems faced by China m learning include limited resources for mobile devices, storage capacity of large inventories and expensive software and software investments. The author argues that cloud computing, thanks to its reliable, customizable environments, and QoS capabilities for end users, has the potential to solve problems by learning m. Finally, the author concludes that cloud computing will play a major role in the development

of learning m. This paper predicts the effectiveness of cloud computing in m learning. It suggests migration strategies, security strategies, and consequently similar immigration tools. The paper's contribution lies in not only explaining the positive impact of cloud computing on a standard software project but also provides specific strategies by which cloud computing is often used appropriately for software project development. For the rapid development of the economic environment, effective logistics management has become increasingly important. Key organizations of the virtual organization need ways to recognize the implementation of regulatory functions in the objectives of normal operations management. Cloud computing technology will be the easiest choice for the cloud computing process thanks to its features such as reliability and security. The author also concludes that cloud computing can have many effects on different levels and different aspects of performance management in virtual reality. There are two drawbacks of the paper: first, it does not analyze how cloud computing benefits performance management efficiency; second, it shows no specific examples to prove the facts.

According to the literature review, we will find that there are three problems with existing research: first, existing literature usually focuses on one or two aspects of the impact of computer cloud on a particular field. no paper provides a comprehensive analysis of the influences of cloud computing;

Second, a few types of books discuss the influences of cloud computing on E-commerce. In fact, rapid development of E-commerce requires the incorporation of cloud computing into its technology architecture, business model, and configuration model. As a result, the event for e-commerce businesses and industries will have a significant impact. Finally, a few of the cited texts provide case analysis to build more persuasive arguments. In its ability to explain the evolution of E-commerce during the cloud era, the paper analyzes the impact of cloud installations on E-commerce and industry businesses.

III. IMPACT ON E-COMMERCE TECHNICAL DEPARTMENT

E-commerce is the exchange of products and services through the Internet. From a programmatic perspective, it is made up of two layers: one layer for hardware and software architecture; the other layer is doing business depending on the technology structure. Technology building is the cornerstone of E-commerce. And it is on the basis of technological innovation only, where E-commerce business methods and marketing strategies can only be identified. In addition, the security and durability of technological structures are the properties of online products and exchange services. Cloud computing, a new computer model, will make a significant impact on E-commerce's technological development. In fact, cloud computing is not a new computer mode. It is the evolution and expansion of the traditional distributed computer and grid, Thus, the influences of cloud computing on E-commerce technology

development are reflected in the structure, use and maintenance of technology.

A. Layer

First, cloud computing enables E-commerce to lease rather than purchase Hardware and software, which helps them reduce the cost of building the system. Traditionally, E-commerce businesses should purchase all the necessary hardware and software, which costs a high percentage of the cost of E-commerce operations, especially for medium and small businesses. Thanks to the cloud computing platform, the E-commerce business can select and hire IT products and services in accordance with its need to facilitate the development of technology. In particular, the "pay-as-service" charging mode is very flexible, helping the E-commerce company to pay for services according to need. EC2 (Elastic Compute Cloud), a cloud-based program offered by Amazon, which allows users to rent applications in the cloud is a great example. Many businesses have benefited from EC2. Because of this, it only costs about US $ 3000 to accomplish the objectives. The computational power of the computing power greatly reduces the cost of data conversion. One similar example is Eli Lilly & Co, a large pharmaceutical company.

Second, cloud computing solved the problem of efficient resource utilization. To take advantage of E-commerce, you need to invest in software and work hard to keep working. With the growth of the company, investment will be increased. However, the efficiency of budgeted infrastructure is low due to the time to market and consumer behavior. Cloud computing enables businesses to integrate useless IT resources (e.g. server) into a remote platform and hire from customers. This mode, on the other hand, lowers the cost of operating an E-commerce company and prioritizes resource allocation on the other.

Although cloud computing facilitates the design and execution of E-commerce technology innovations, system security issues and robustness will also be a neglected issue. When all IT resources such as Hardware, software, data, and network applications are stored in the cloud space as services, users will worry about security and the security of the platform. When the cloud platform is attacked, important E-commerce transaction data will be lost. Alternatively, customer privacy can be an obstacle to E-commerce cloud systems.

IV. IMPACT ON E-COMMERCE BACKEND SERVICE MODEL

The new service model offered by cloud computing differentiates it from traditional IT services. First, all IT services such as hardware, software, data, and infrastructure are provided to E-commerce businesses as a service due to the cloud platform. Second, like utility services (e.g. electricity), an E-commerce company is allowed to access IT resources on the cloud platform and pay them as services. It does not require high cost of equipment purchase and each firm is able to choose the right IT resources for hire. In other words, the emergence of cloud computing brings a new philosophy of application and mode that enables low cost and has changed the traditional IT licensing mode.

An important impact of cloud computing on E-commerce lies in the fact that you migrate without having to go to E-commerce. As a successful service provider, the cloud computing business establishes a common and uniform service platform that integrates infrastructure, application software, and develops the environment and customizes according to the needs of consumers. As a customer, the E-commerce business looks for the required services and pays them based on demand. In fact, it is a kind of output, that is, E-commerce. The background computer service based on the cloud computer replaces the shutdown service when a service provider sends IT staff to conduct local technical support and is called "outsourcing".

The main purpose of the service is to reduce costs, improve efficiency and quality of service and improve the basic skills of the organization. The emergence of E-commerce indicates that the low power of an E-commerce company is no longer pure technology but a business or service mode. Cloud computing sets E-commerce businesses free from the complexities of technology architecture, design, and storage and enables them to focus on key businesses. Virtual business is a classic example of new releases based on cloud computing. It means that the E-commerce company achieves most of its performance through "cloud extraction".

The benefits of the business are there
1) The "pay-as-service" charging mode enables cost savings.
2) The cost of device upgrades can be reduced.
3) The "cloud discovery" mode enables high-quality visits to the E-commerce website.

V. IMPACT ON E-COMMERCE BUSINESS PLANS

Since the emergence of cloud computing, many E-commerce companies are starting to expand their business on the computer. Other popular E-commerce businesses such as Amazon, Google, and Alibaba have been involved in cloud computing in their long-term plans.

Several driving forces are driving the migration of cloud computing to E-commerce strategies:
1) The need. With the rapid development of information technology, E-commerce services are improving — more efficient services, lower costs, more flexibility, and diversification are needed. For example, Alibaba, the largest B2B E-commerce business provides online loan services thanks to a computer in the cloud. Alibaba is lending small and medium-sized businesses its unprofitable B2B purchases. When evaluating a customer's creditworthiness, Alibaba uses rapid data analysis with cloud computing, which ensures the efficiency and effectiveness of credit ratings;
2) Establishing a data center is inaccessible to small and medium-sized E-businesses. Cloud computing enables the execution of background infrastructure architecture and application application resources. In addition, the "pay-as-service" charging mode significantly reduces labor costs and environmental pollution. On the other hand, the excellent ability for data integration and processing enhances the efficiency of online services;

3) The goal. Government policy is one way for E-commerce businesses to incorporate cloud payment into their business strategies. In 2009, Obama

4) The president of the U.S.A has announced a long-standing cloud computing program to reduce government spending on the technology it uses. In the same year, App.gov was launched - a website for cloud services. This online store enables all government agencies to browse and purchase IT-based IT services.

5) Quality. The high demand for customers for the quality of E-commerce products and services is one of the driving forces for E-commerce businesses to use their cloud strategies. For example, Baidu, the largest Chinese search engine, in 2011, announced the opening of its cloud platform supporting 6 billion searches in 138 countries. Cloud computing enables Baidu to operate using high-capacity data storage and operations, a real-time commission for high quality construction. As a result, Baidu stands out among the data search platforms due to its high response speed and high reliability of 99%.

VI. IMPACT ON E-COMMERCE INDUSTRY CHAIN STRUCTURE

Cloud computing may additionally impact the traditional E-trade industry chain and lead to the chain restructuring- Traditionally, the E-trade enterprise chain consists of the hardware dealer, software program developer,

Internet service provider, a system integrating issuer, service provider, E-trade agency, and customer. Each member of the enterprise chain fulfills its very own functionalities. The hardware supplier, software program developer, Internet service company, system integration provider, service supplier exist as the backend of the E-commerce organisation and offers it the technical support.

When cloud computing is migrated into the E-commerce industry, one cloud service company can supply almost all the essential services and products to an E-commerce website. As a result, the structure of the E-commerce industry chain might be changed.

On the only hand, an E-commerce company doesn't must purchase IT resources. Instead, it simply rents the cloud services needed. Thus, the profiting area of the conventional IT firms (e.G. IT service company) inside the chain becomes smaller inevitably. They may additionally cooperate with a cloud service provider and turn out to be its "backend" which gives the necessary infrastructure offerings for the cloud service issuer. The E-commerce agency might be without delay served via the cloud service company in preference to the IT firms group. That manner the IT assets market of the conventional E-commerce website may be in part shared by means of cloud computing. The E-trade enterprises missing the core skills will must go out from the market. Eventually, the E-commerce industry chain may be restructured.'
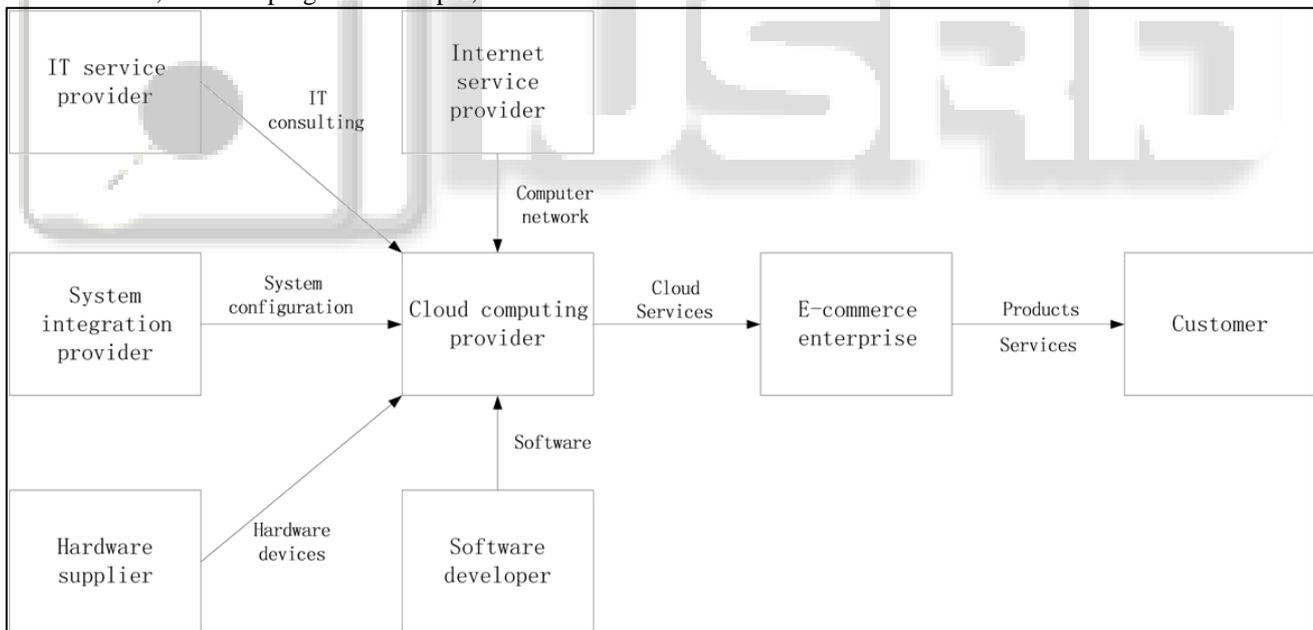

Fig. 1: E-Commerce Industry Chain Based on Cloud Computing

VII. SUGGESTIONS ON E-COMMERCE IN THE CLOUD COMPUTING

Firstly, an E-trade company need to give attention to middle competencies. Since E-trade is a kind of new enterprise model by way of distinctive feature of a pc network, an E-trade employer have to emphasize operation and control. Actually, cloud computing will threaten traditional IT firms including E-commerce firms. For example, customers are able to utilize the software by way of the "pay-as-provider"

charging mode as an alternative than purchase it from the conventional E-commerce website. The marketplace share of the E-trade establishments which cognizance on on line software sales will decrease greatly. As a result, statistics technology will now not be the core competency of an E-commerce employer. Therefore, an E-commerce business enterprise have to emphasize the commercial enterprise operation and control more.

Secondly, an E-commerce organisation must awareness on the innovation of business model and

operation mode when you consider that they're the crucial factors for an company's success. For example, Alibaba commenced to build its E-trade cloud center in view that 2009. It plans to combine the cloud middle with the existed facts middle and set up the commercial enterprise cloud that can compete with the well-known cloud services providers including Google. In addition, Alibaba supplies customized and personalized cloud services along with application engine, application framework, and resources trying to find the small and medium businesses. The business version differentiates Alibaba from other E-trade competitors. By distinctive feature of the business cloud offered through Alibaba, customers don't have to challenge approximately the complicated IT infrastructure and simplest want to lease the cloud offerings primarily based on the call for to obtain the goals.

Finally, an E-trade corporation ought to cooperate with cloud carrier vendors in an effort to improve operational capability. Since the cloud computing improvement is unaffordable for most of the E-trade organizations, it requires close cooperation with partners. The cooperation with cloud carrier carriers allows the E-trade corporation especially the medium and small corporations to discover a new way.

VIII. CONCLUSION

For the conventional E-trade enterprises, an appropriate strategy of development within the cloud generation is to embrace cloud computing instead of resisting it. Only while the E-trade enterprises contain cloud computing inside the business strategy and establish the core competencies, can they realize sustainable development?