Efficient Use of Cloud Computing Technique in E-Commerce Enterprise

Subir Saha

Department of Computer Science and Engineering, Pabna University of Science and Technology, Pabna-6600, Bangladesh

*Corresponding Author: *Subir Saha, Department of Computer Science and Engineering, Pabna University of Science and Technology,Pabna-6600, Bangladesh*

ABSTRACT

As the growing of technology we are bit ahead of our living style we than expected. With the extensive use of technology in our daily life also affect in business world. Modern business is growing not only with the help of technology but also stands on technology. E-commerce industry is one of the modern area of business where there is using of extensive use of practical and theoretical knowledge of computer science and engineering. In E-commerce use of cloud computing is a new idea. The idea of cloud computing is now used in business industry like E-commerce both as a form of practical and theoretical basis. By using cloud computing business entrepreneur are able to curtail their business expenses. In this paper we deduce a model that an E-commerce industry is providing many services to its client. All the services are considered as a different cloud, all clients are also in clouds. When a client needs a service he/she request for that particular service through a controller it can easily communicate with that particular clouds, then that particular clouds provide service to that client. It is a bidirectional communication and in this model all clouds would not be responding for a particular service..

Keywords: *Cloud Computing; E-Commerce; Business Model; Industry Chain; Data Integrity; Information Technology*

INTRODUCTION

The technology of cloud computing was proposed by Google in early 2007 [1]. Google was first the organization in where cloud computing is used for intelligent data store and search the most particular data item as the user search from search box. But after passage of time the idea of cloud computing are being popular in many organizations and researchers from various field of science, technology and business application fields. Cloud computing has developed quickly from a theoretical concept to the various real applications in the past few years. Various software applications where store of data, data indexing, data manipulation and data search are needed there are extensive use of cloud computing. Cloud computing is a very helpful idea where data can manage very smartly. The traditional application software which is not using this features are less smart that software with cloud computing technology [2]. The use of cloud computing idea makes the software more speedy and user friendly the traditional software with no cloud computing technology. So, use of cloud

computing technique make faster and smart in E-commerce application.Data security is very important in case of business industry; it is quite different from normal age old application software. In normal age old application software data are not classified for any In E-commerce industry date security and data integrity are very much sensitive. For an E-commerce industry only the client data would be enough to study it hike or down in the present market. And data analysis be the most important and significant features for a business industry to make its future plan. Cloud computing technique with some measures in business industry also provides data security and data integrity [4].

So, use of cloud computing technique is secured in business industry. Use of Information Technology (IT) is not only common but also mandatory in any form of business and educational communication. For a sustainable development in terms of profit and outcome the use of IT and other technology is must. Cloud computing is also being an important technology in our education. Suppose we need data in same intensity for several users at a time

if we can make a cloud that data of same intensity are kept in same cloud then it will be easy and efficient to access [5,7]. Every application / utility software must have a market value; market value will increase after the using of technology and advanced idea it uses [6]. E-commerce is completely a market oriented featured business industry. So, we can use cloud computing technology in E-commerce. In our model we are using cloud computing with a bidirectional controller technology to enhance it smartness and speed.

FRAMEWORK FOR E-COMMERCE CLOUD

Cloud computing technique influences the traditional E-commerce industry in large scale. Traditionally, The E-commerce industry chain is composed of the (I) hardware supplier(II) hardware maintenance, (III) software developer, (IV) software maintenance, (V) content development, (VI) internet service provider, (VII) system integrating provider,(VIII) service supplier. E-commerce base enterprise and customer act likely. Each clouds of E-commerce industry fulfil its own functionalities and provide service on demand according to our deduced model. The hardware supplier, hardware maintenance, software developer, software maintenance, content development, internet service provider, system integrating provider, service supplier exist as the backend of the E-commerce enterprise and offers it the technical support. On the other hand controller controls all the demand and work like Direct Memory Access (DMA) protocol. In our model we introduce a controller to classified and efficient action of E-commerce base enterprise and uninterrupted service to the customer. We also proposed a bidirectional way of communication of each entity/cloud though every entities/clouds have the way to demand and get service as the want. If needed every entity/cloud can verify the updated service. When the idea of cloud computing is integrated with E-commerce industry, one cloud (e.g one entity) service provider can supply almost all the necessary products and services to an E-commerce industry/website on the other hand E-commerce industry/website can any of its cloud if need based on client demand. When client demand for a product/service it go firstly to the controller and controller decide whether the service/cloud is present in the E-commerce industry/website. If it is present then it will provide the desired service to the client. If there is no such clouds/services the based on demand it can add clouds to the desired service. The cost

effectiveness must be calculated by the controller though it can be profitable for the E-commerce industry/website. E-commerce industries are getting changed based on the demand of customer. Previously we discuss about that Information Technology (IT) and IT firms are associated with E-commerce and provided services to the customers. Now if we provided them an integrated model of cloud then it works with the association of both to provide better service. On the other hand we are ensuring the data security and data integrity for all customers. The E-commerce industry/website with no cloud module will lack behind by the customers because the get integrated service in a same platform with integrated cloud module.

EFFICIENT MODEL WITH CLOUD LAYER

We deduce a final model which is more efficient than any other existing model in E-commerce industry/website chain management. Our model composed on (I) hardware supplier, hardware maintenance and trouble shooter, (II) software developer, software maintenance and software trouble shooter(III) content development, (IV) internet service provider and trouble shooter, (V) IT and system integrating provider,(VI) service supplier (VII) demand handling and (VIII)controller (IX) E-commerce base support (X) customers [in figure 1]. In our model every entity are different cloud and every cloud can communicate with the E-commerce base support with controller and customer demand for service with the help of controller. In this model we consider all modes of commutations must be done in bidirectional manner though every item cloud have an option for opinion and every customer should make sure about the service/product through controller though they are not deceived. Here we describe one scenario from customer to service provider. Say a customer wants to buy a product, let it is a mother board of a computer. The customer demand the particular product in the E-commerce website, though it follows our designed model, the demands goes to controller. The controller first checks whether the demand is valid or not, if the demand is not valid then it sends back to customer with required field (e.g price of the product). On the other hand if it is a valid request (e.g: requested with all desired field like model name, product price, warranty etc) then the controller checks whether the cloud of hardware equipment is present or not, if present the it search for required model and after getting the model it send back to the customer

via controller and E-commerce support base. On the other hand if the specific model is not present then hardware support cloud search for other available hardware support cloud and provide update for product to the customers. And if hardware section cloud is not present in E-commerce website then the controller sends disagree message to customer and save it as for future calculation and checks for economic

feasibility to add an another entity cloud named hardware entity. This model is economic because every module/cloud is added in here (E-commerce website) by calculating its feasibility first. In cloud technology we need not accumulate all the products under the same shade, every product can be provided to the customers from its own cloud.
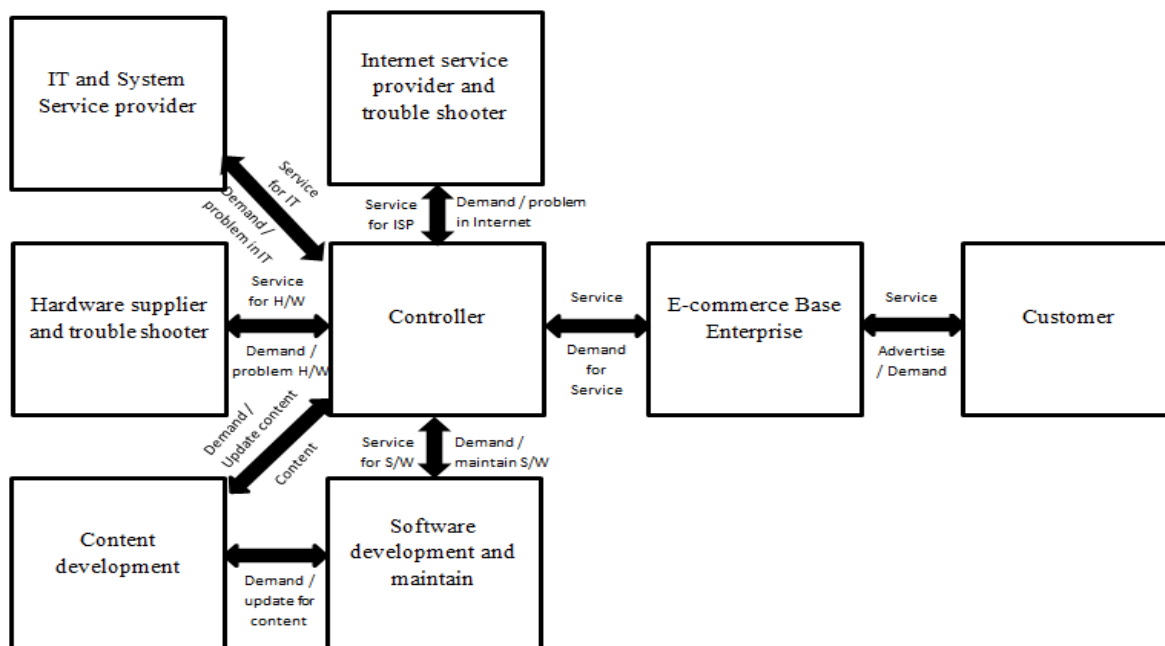

Figure1: *Proposed model for cloud computing in E-commerce*

E-COMMERCE INDUSTRY CHAIN STRUCTURE WITH CLOUD LAYER

There are many differences between an application software/ utility software and business software. In the question of security and data integrity E-Commerce software are far ahead. E-Commerce industries are to provide proper measures when the businesses are done in a virtual media like IT based websites. In our designed model we are not only using computer aided IT based websites but also a virtual media technology idea cloud computing. So, we need to ensure the support of the powerful hardware based platform, security added layer carries that carry data and store data in layered based topology thus data are stored with safety. The business data must be processed intelligently to get information so, in our designed model we proposed a powerful controller to analyze and summarize data to information and hence serve to the customer. Data integrity and data security are done in such a way that user can use the E-Commerce website from any platform with facing no problem, for doing this we encrypt all the data get from user and saved the data in an encrypted format thus it can act like platform

independent and user friendly. For the use from any platform our model provide cloud computing embedded E-Commerce website.

INFLUENCES ON E-COMMERCE BUSINESS STRATEGIES

A website based business platform is called sustainable platform for business if it is flexible and scalable, means that every sorts of customer are able make business with that E-Commerce website and scalable means it (E-Commerce website) are able take any number of customers and any number of online products thus there is no irregularities. In our designed model, we propose our system in such a way that it can be scalable to any extent. The previous section we disclose that our model is platform independent and any sorts of customer are able to participate with E-Commerce website. We also designed a controller which process the queries of customers and add clouds if it is economically feasible. Thus it (our proposed model) holds the property of scalability. The cloud modules are maintained by the controller; controller can add, delete and edit the cloud entity. The entire requests are done by the controller. There is no

direct relation with the customers to cloud in our proposed model. Thus it is completely safe from mal access of customers. Though the system is flexible and scalable then it is a sustainable platform for business.

E-COMMERCE ENTERPRISES' ENHANCEMENT IN CLOUD COMPUTING

E-Commerce is a growing industry all over the world. People like E-Commerce industry because in a same website they can compare all the products by their advantages and disadvantages. The E-Commerce is more empower with the help of cloud computing technology. Previously we discuss in this paper about the way of using cloud computing in business industry. The data integration and data manipulation are done very efficiently. The customer of E-Commerce embedded with cloud computing will provided high data security. In our designed model customer also get enhanced support from E-Commerce support base. Customers have the strong opinion to verify and check the products. The all submitted query of customers are analyzed very intensively in our designed model to provide quality service.

FUTURE SCOPE AND CONCLUSION

Cloud computing technology is a new idea in the field of business industry. With the passage of time the industry will prosper with this new idea. In our designed model we maintain bidirectional commutations with all entity/cloud. We know for any bidirectional communication every entity/cloud would be able to communicate with its own opinion which is very important for any market system. The proposed model also introduces a controller which acts not only a controller but also calculate feasibility of demand cloud. But we are not specify the way of calculation of economic feasibility it will be a great scope if we also a integrated a cloud module which can calculate the demand cloud feasibility with the consideration of present market situation. There will also a huge field of research in which E-Commerce industry/website is suitable for which class of customers. The application of cloud computing is speeding day by day in almost every field of business industry. The researcher has a great scope of work with cloud computing in this uprising and enhancing the field in E-Commerce.

AUTHOR'S CONTRIBUTION

In this research work we propose an efficient model for E-commerce industry using cloud computing. We are providing reasons why our model is efficient and effective in cloud.

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