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Issues and Proposed Solution of E-commerce with Cloud Computing

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Abstract: *Cloud computing is very popular across the world. It helps in solving challenges faced by small and large scale enterprises in term of cost-effectiveness, security, availability and Information Technology resources. E-commerce in Small and medium enterprises is need to serve the customers better services to satisfy them and provide them customized services. From last two decades these Small and medium enterprises faced many issues and challenges. The different cloud services as discussed to provide better platform to e-commerce applications. The technical issues related to the e-commerce are addressed in this paper. Further this paper proposed the solution of same problems with services of cloud computing. The issues and challenges that E-commerce enterprises are facing are elaborated, and how cloud computing can be useful to enhance business with cloud computing.*

I. INTRODUCTION

The web and its applications are considered an important hallmark of the current information age. In the business world, the migration towards web-based transactions is a remarkable progress in the virtual business and commercial activities, which gave birth to the electronic business (e-business) and electronic commerce (e-commerce)[1].

e-commerce application build up takes many efforts to satisfy the needs of user and business requirements. One of way of outsourcing can help us to build e-commerce application for any enterprise[2]. The innovative technologies are emerge with e-commerce nowadays. The techniques and methodology of cloud computing have introduce so many advantages to e-commerce [3]. Cloud computing is the evolution and extension some type of grid computing[4]. In cloud computing the data resource are distributed among various platform along with internet. This distribution improves the business and customer needs. Cloud computing provide platform to other organizations to share IT operations. These services are provided on the base of demand of industry and current affairs related to applications needed IT infrastructure [5]. Those industry who can not effort to purchase certain types of technology or infrastructure, they can able to maintain their application on the temporary basis [6].

A. Cloud And Its Types

Cloud provide platform to industry to manage data and process over the remote server using latest networks trades rather than a local server or a personal computer. It contain Public, Private, Hybrid & Community types of cloud. A specific type of cloud is required to select for specific types of business.

B. Cloud Services

Infrastructure as a service (IaaS) is cloud service where physical resource are shared to facilitate business. Some of business need hardware resources and computing power are for short period of time, this service offered same to business for better utilization. This service may have different rent structure for resources rather than spending money to buy high configured servers and networking equipment [6,8].

Database as a service (DaaS) is another cloud service which is specialized type of storage provider over the heterogeneous network. The data of business and customer are located to various servers with a multi-tenant architecture. The variant architecture is followed by various users to manage user data from various physical location [6,8].

Software as a service (SaaS) is introducing services on internet over the network instead of software packages to be purchased by business group or individual customers. There are many customer relationship management system involve in this service to provide facility [6,8].

Platform as a service (PaaS) is one of important service as it provides facilities to system from basic level to final level. It helps application development from design to deployment. It also supports operational behaviours of web applications over the Internet. It supports to adopt mappings enabled the interoperation for developing heterogeneous services or data[6,8].

C. Issues

There are many social, commercial, financial and technical issues arise during the execution of E-Commerce . Different issues affect different section of e-commerce enterprises [7]. In this section the technical issues are summarized follow:

- 1) *High Implementation Cost*: Small, medium business have to invests in high amount of finance to support to implementation.
- 2) *Lack of Technological*: Small & medium business cannot bear current technology each time, even it is difficult to migrate old technology to new technology.
- 3) *Lake of skilled Resources*: Small & medium business have very tough challenge to maintain Skilled resources for maintain the current technologies.
- 4) *Storage and Security of Data*: Small & medium business have another big issue to maintain the data rendering for their products. The various data analytical approaches are very hard to invite for future prospective.
- 5) *Service Quality*: This is one of the very crucial factors to work for each small and medium scale industry. Service Quality is also very time consuming when few resources are involve to perform many task.
- 6) *Security*: Security maintained in e-commerce application is required efficient and economic support for finding better solutions. The data about transaction, trade and service oriented for customers need not be exposed, accessed, modified or even destroyed while processing of transaction.
- 7) *Service Standards*: Data about location, technology, staff and infrastructure are not communicated to the clients.

D. Proposed Solutions

- 1) *High Implementation Cost*: Cloud computing can help to reduce the cost of implementation. It help the business to supply and deliver basic to final level services upon request. The processes of e-services can be transferred on IaaS, PaaS and SaaS services of cloud.
- 2) *Lack of Technological*: cloud computing offers to share and hire certain part of application for their business growth. Instead of perching new technology for specific type of service , they can take support of available technology on cloud platform. Compare to traditional e-commerce application, they have more compete technological environment.
- 3) *Lake Of Skilled Resources*: cloud computing offers various types of services. It also includes sharing component build up. Instead of hiring resource for part of component building, small and medium business goes for such alternative option.
- 4) *Storage and security of Data*: It is very importance to maintain the robust data while all these activities. Only cloud-based e-commerce is most efficient to perform data storage while online shopping along with secure transactions. The data is required to keep and maintain secure as it follow shared structure among varous the e-commerce enterprises. The customers can trust about the protection against the potential attacks as it is performed on cloud.
- 5) *Service Quality*: The cloud technologies is spread among the wider community for sharing of information, resources and services. E-Commerce is one of the of services along with dynamic business trend in current competitive economic activities. This is the resoan why many e-commerce as adopted the cloud services. With the help of cloud computing small and medium business claim quality services for expand their business in a secured virtual environment with major range of customers..

II. CONCLUSION

E-commerce platform, services and applications are entail for large business with minimum investment and better performance. There are cetain technical challenges exist that prevent full fledge flow of business in same platform. E-commerce Websites or applications are running on public cloud or on Private clouds are very popular in their own domain. The Websites and applications which are running on public clouds share various resources & pre-requirements like storages, vcpus, virtual machines, etc and by that E-commerce website and application owner manage major issues dependent on services, platform and resource. Thus small and medium enterprises can increase business with the use of Cloud computing and its' services.

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