

Design and Development of A New Framework for Small and Medium Enterprisers in Cloud Architecture for Development of Urban and Rural Areas in India

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Abstract : Most of the small and medium enterprises are not having enough funds to buy the infrastructure in cloud computing. The main aim of the project is employment generation in the rural and urban areas. In our country we are facing problems in low level marketing such as random changes in prices due to many cases of portfolio, informal and undemanding customers in SME. In our proposed, we are planning to implementation of SME (Small Medium Enterprises) to give efficient response to clients according to their requirements. SME model is based on the availability of temporary and short term business partners and this model is develop in virtualization technology. We can achieve the best resource allocation & Integrated, meet the customer demands with in short period and increase productivity of resources. It enables cloud enterprise architecture based on the concept of virtual enterprise at both business and technology levels. These process model helps to increases the skills and improve the resources. In this proposed model, is eradicate the need of purchase the software licenses and reduce the cost of developing , investment, backup storage, data security and server maintenance cost in different location from the all service providers.

Keywords - Cloud Computing, Sme, Virtualization, Resource Allocation, Virtual Enterprise.

I. INTRODUCTION

Most of the small and medium enterprises are not having enough funds to buy the infrastructure in cloud computing. The main aim of the project is employment generation in the rural and urban areas. In our country we are facing problems in low level marketing such as random changes in prices due to many cases of portfolio, informal and undemanding customers in SME[1]. In our proposed project we are planning to implementation of SME (Small Medium Enterprises) to give efficient response to clients according to their requirements. SME model is based on the availability of temporary and short term business partners and this model is develop in virtualization technology. We can achieve the best resource allocation & Integrated, meet the customer demands with in short period and increase productivity of resources[2]. It enables cloud enterprise architecture based on th concept of virtual enterprise at both business and technology levels.[9] These process model helps to increases the skills and improve the resources. In this proposed model, is eradicate the need of purchase the software licenses and reduce the cost of developing , investment, backup storage, data security and server maintenance cost in different location from the all service providers[10] .

II. IMPORTANCE OF THE PROPOSED PROJECT IN THE CONTEXT OF CURRENT STATUS

Most of the IT sector don't have enough resources to respond to a business opportunity or customer demand.

To overcome this, we proposed an engage in virtual enterprises collaboration to enable them to respond on varying market opportunities and act on customer demand to remain competitive.

- Create new business models for new enterprisers to generate revenue in rural & urban areas (through online purchase & sold) .
- To collaboration of resources and providing cloud hosting services.
- To increase the local and global optimization of Infrastructure as services Model (IaaS) for automated management of virtual machines, Physical machines and servers in a rack.
- To cope with temporal resource unavailability and include with identical capabilities.
- In few scenario resources may be idle. To alleviate we can get resources from an external source. Access to these resources is not always guaranteed to be available or is too expensive to access.
- Cost savings are the primary motivation behind the adoption of cloud-based services with unlimited storage capacity.
- The improvement in storage, processing power, or technology offered by cloud computing enables innovations.

- Integrate/migrate the similar category types of sectors into a ONE.
- And finally, to create new employment with these new innovations.
- **To specific location based on the selection phase**
 - To avoiding the expenditures in purchasing the hardware and software, information security by outsourcing the cloud models.
 - To develop the individual software packages in real time applications.
 - If an enterprise is not satisfied with the services of the cloud service provider, it is allowed to switch to another far easier than when changing IT outsourcers.
 - For every enterprisers can access the data from everywhere using Smartphone.
 - To develop & host the user-friendly applications (image icons) in rural & urban areas .In case the data is lose due to any disaster , we can recover the data.
 - Reduces the utilization of the natural energy.
 - To ensure that projects are carried out in a reduce cost and secure way and for implementation cloud architecture.
 - More effectively design the product and sales within time period
 - Incases the server's failures it won't effect to the environment.
 - Solar Energy can use for running the servers.

III. WORK PLAN

3.1 Methodology

The main focus of the methodology is to startup companies with low budget with all services in the cloud computing[3]. To provide better services to the customers mainly focus on reduce costs and quality of the services.

Stages of the methodology

- ✓ Customers and services providers as partners
- ✓ Good relationship and cooperation between customers with services providers by solving problems.
- ✓ Regular feedback to the customers
- ✓ Direct involvement to the customers to improve the development of products.
- ✓ Involvement of empowerment of workers

The methodology is divided into following stages.

- A. Promotion
- B. Awareness to the cloud services into the market
- C. Information sharing

- D. Design the new plans and improvement of the services
- E. Implementation and regular contact with customers

In the promotion stage, services providers and customers to encourage them to involving for development of the cloud services. In the awareness stage, the services providers is trained the customers to marketing the product and services. It will helps services providers for knowing services and benefits to the customers in all aspects. In the information sharing stage, the services providers meets the individually customers and get their requirements and feedback with respective the services and it helps to improving the communications [4].

In design stage, services providers can analysis the requirement of the customers and identify opportunities for the improvement of the business and plan according to their feedback from the customers [5]. While implementation cloud services, services provider cant ake suggestion/recommendations from the expect team in the SME association in India.

A. Promotion

- I. To get promotion the cloud services into the market, to explain the benefits and utilization of the resources and make the environment ecofriendly.
- II. To ensure the customers and services providers accepts the commitment to involving and allocate the resources as per their demands.
- III. Identify the customers and services providers to utilization of resources effectively.
- IV. Planning to each services provider to every stage in the project.

- ✓ Define the customer groups
- ✓ To get awareness into the all sectors
- ✓ To make a promotional strategies for SME
- ✓ Identify and selection of the CSP(Cloud Services Providers)
- ✓ Feedback to the customers.
- ✓ Plan according to the customers
- ✓ To design and development to the web services
- ✓ To support the technical aspects for user friendly applications (GUI).
- ✓ Marketing their products
- ✓ Payment by customers to the CSP

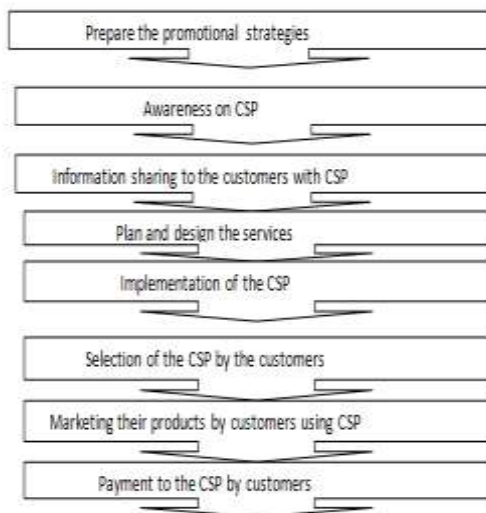


Figure 1 : Flow chat for Promotion -Stage I

In the promotion stage , the enterprisers has to take long time to gathering the all customers . If the customers has interested to involving in the project to maintain a relationship in the long term.

B. Awareness

To explain the importance of the modern purchasing business management, production concepts with their costs and benefits. Organization seminars and meeting to get awareness of the modern purchasing and production in the rural and urban areas. To analysis previous failures and discuss with customers and how these project is overcome failure.

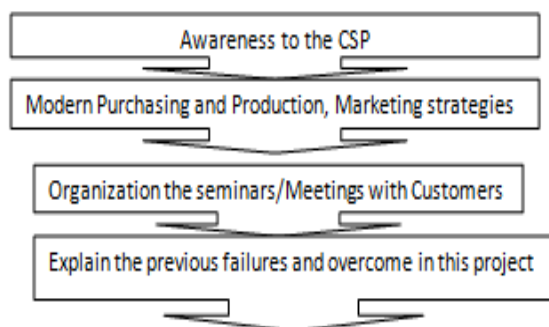


Figure 2: Awareness in Rural & urban areas

C. Information Sharing

Information sharing between CSP and customer play major role in the project. To improve the quality of product, need to establish relationship based on the previous communication or same categories of problems facing by the customers.

- ✓ To awareness and understanding customers and cloud providers
- ✓ Understand the better method to purchasing and sales of product, quality and storage
- ✓ .Improve the communication between the customers and CSP in ways of technical support, quality of product, delivery product on time to the customers.
- ✓ Interacting session for CSP and Customers by solving the problems and also plan for alternative solutions.

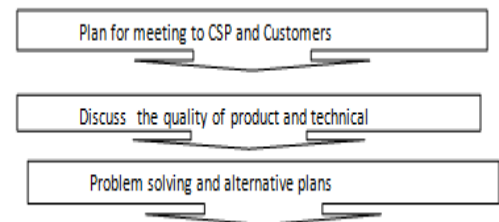


Figure 3: Information sharing between CSP and Customers

D. Planning and designing

The major stage in this projects is planning and designing . In this stage , the number of enterprisers are participation and identify the problems based on the priorities and solve the problems with different strategies and alternative plans. To estimated the number of resources required to implemented the cloud services based on the customer requirements.

E. Implementation

As per the planning approved, to identification the common problems in the enterprisers and customers and to organize the training programs and technical sessions for solving problems in different areas. During the implementation, CSP should interactive with the customers, it should be user friendly application (GUI ICONS)

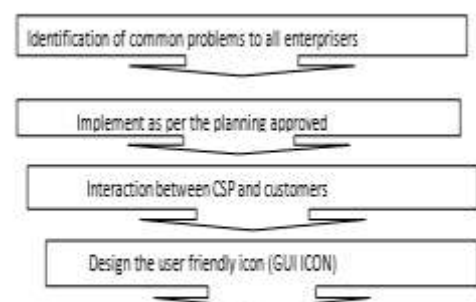


Figure 4 : Implementation Stage

F. Payment stage :

In previous stage, cloud services providers has develop the applications and host in the servers. The customers has used the application and get benefit from the users. Based on the metrics such as application design, number of users are accessed, data storage into servers the customer will pay the amount to the cloud services providers.

IV. CONCLUSIONS

The major problem in the developing countries is in identification of the effects of mismanagement of natural resources. Assessment of mismanagement of natural resources can be carried out only when the core team is aware of the functionality of each component of natural resources. Managing resources of nature are diverse and approaches toward their solution to mitigation depend on the information, monitoring and pressure for action which is acute. Cloud based natural resources data model will help the SME. We can achieve the best resource allocation & Integrated, meet the customer demands with in short period and increase productivity of resources. It enables cloud enterprise architecture based on the concept of virtual enterprise at both business and technology levels. These process model helps to increases the skills and improve the resources. In this proposed model, is eradicate the need of purchase the software licenses and reduce the cost of developing , investment, backup storage, data security and server maintance cost in different location from the all service providers.

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ACKNOWLEDGEMENTS

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