



Cloud Computing: Flowing Model in IT Services

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Abstract— *Cloud Computing based on the virtual environment and it is the useful technique for the IT Organizations. Cloud Computing befits more prevalent because of their availability of storage on demand. In cloud computing the data stored in the storage area and accessed by the organizations on their demand from the internet. The accessing of data is very easy and profligate through cloud computing. This paper provides an introduction of cloud computing and how cloud computing paradigm shifted in IT services. Moreover discoursing about the deployment models which is used to make cloud computing more beneficial for the commercial organizations.*

Keywords— *cloud computing, flowing model, deployment models, service models, cloud clients.*

I. INTRODUCTION

The term cloud computing originate from the internet shape because the internet network also looks like as a cloud. The internetworking devices are interconnected to each other like a cloud. In 1950's where large mainframe computers were used for communication. Time sharing CPU came in existence the term time sharing work in practice. In mid-1970's remote job entry is one of the most popular jobs. In 1990's many companies provides point to point data communication primarily to connect the data. While cloud computing provides servers based infrastructure of the network. Since In 2008 the API platform based private clouds are deployed for communication. Eucalyptus was the first open source software for deploying the hybrid and private clouds. The most important thing associated with the cloud computing based infrastructure they are focused on the quality of service. In 2010 NASA jointly launched cloud software named as open stack. Open stack cloud software helps the organizations to store data easily. In 2011 IBM launched cloud software named as IBM smart cloud. Similarly In 2012 oracle launched cloud software named as oracle cloud. Oracle cloud is the first cloud which is provides integrated IT solution to the users. Cloud computing are service oriented architectures, they available in high capacity networks. In the simple way we define the cloud computing means storing and accessing the data from the internet instead of the hard disk / hard drive. Clouds can be categorized as private, public and hybrid. Cloud computing not accessing the data from the local drive it does not mean storing the data on the hard drive. The data is physically stored in the internet and very easy and fast access of the data.

Cloud Computing provides a concept of shared resources and utility of a network in electric grid form. Cloud computing internet based technology where services are delivered to the organizations such as storage, servers and computing applications. The word "Cloud" based on the concept of sharing the information not only bound the data to personal devices and local servers. Cloud moving the organizations from the CAPEX model (i.e. purchasing the dedicated hardware to store the data) to the OPEX model (i.e. based on the cloud architecture whenever requirement is made clouds are available on the basis of nominal payment). Cloud computing sharing of information based on the service rather than specific product. Sharing the services to the multiple users on their demand means dynamically relocation of services. When data available dynamically so the multiple users can retrieve the updated data from the server without searching from the different applications. Cloud computing helps the industry in terms of storage infrastructure, companies need not to be worry about the infrastructure of the storage, they have to only concentrate on their business activities. Now day's clouds are available on the low cost, high speed network and service oriented cloud based architecture. Cloud computing paradigm shifted into the e-learning facility of the computer system. E-learning provides a better mechanism of the system that provides the availability of the services at any time through cloud computing [1]. In recent years cloud computing software provides easy access and sharing of information in computing environment. Cloud computing effects on the individual's consumers who sit at home or in an office and uses the internet in a regular basis. Cloud computing defined as a virtually available servers for the users. Cloud computing provides a desktop applications to the users when they work upon the enterprise resource planning (ERP). Cloud computing only thing about the IT organization, where these organizations need services at any time without investing the money on the new infrastructure, training to the new employees and taking licensing for the new software.

II. RELATED WORK

Xiao and Wang introduce a mechanism cloud computing based e-learning system. They introduce a new paradigm i.e. e-learning. They provide the cloud computing environment feasible and efficient e-learning system development for the management. Cloud computing internet based technology that extends their environment to e-learning [1]. Akhil and Kanika provides security paradigms for cloud computing. They exploring the security issues of cloud computing, how

the data is stored and where the data stored physically [2]. Liang, Xilong and Zhenzhen describe the general purpose computing. They describe the general scheme of the cloud layer, server layer and how these layer works [3]. Cloud computing paradigm shifted in university education system. Education is the main building of nation. Private cloud used for the universities so, the availability of infrastructure at any time [4]. Gonzalo, Isabel and Joel provide the mechanism of cloud paradigm on mobile health record systems. They introduce a cloud system where health related data available at any time. But security problems can arise; they left the security problem in cloud computing [5]. Dhananjay, Alan and J. Pinkston provides the one of the solution of data security in cloud computing. They explore new paradigm to achieve confidentiality of data whose functionality based on oblivious data processing [6]. Zhi, Changqin and Yan gives a cost based scheduling paradigm in cloud computing. They provide the cloud storage on demand and accessing the virtual environment of cloud computing. The cost scheduling based on java cloud ware that is private cloud platform [7]. Cloud computing services are available at any time and growth exponentially increased. Digital games are providing on low power computing [8].

III. CLOUD COMPUTING CHARACTERISTICS & MODELS

Application program interface same as the traditional computer desktop. To interact with the cloud software used traditional interface of the computer system. Computing cost is very less claimed by the cloud providers. One time cost is invested to make its infrastructure. Maintenance of the clouds is easier because clouds computing applications can be accessed from the different places and no need to install on the each and every user of computers. Cloud computing is dynamic in nature. The services are scalable on the demand of the user. Productivity and performance are monitored consistently in the cloud computing services. Security is improved in the cloud computing services due to the centralization of the data. Private cloud provides greater flexibility to the user to control over the data of clouds computing applications. Service models of a cloud computing is characterized into the fundamental models viz. Infrastructure as a service, Platform as a service and software as a service. Infrastructure as a service offer virtual machines, block storage, load balances and virtual networks. Users can use the services of cloud software either internet connection on virtual private networks. Platform as a service provides computing platform, web servers, development tools and databases. The cloud users can use these services in minimum cost without buying the hardware and software. Software as a service provides an application layer where cloud users can access the databases and application software. It refers to the services are available on the demand; generally the subscription fee is used as an application price of a cloud software. Unified communication as a service provides multiplatform communication to the service provider. A service includes messaging, video conferencing and IP telephony etc. Presently how to make cloud computing environment not clearly defined yet. Which software's used to make the cloud computing used as a private cloud not fully defined? Most of the organizations having their own cloud computing technologies for example IBM's "Blue Cloud" is based on the open source software, which link provides the web activities and mobile activities. Private cloud operated for the single organization. Private clouds improving the business activities and prevent from the vulnerabilities. The expenditure is to be made onto the clouds periodically by the organizations. Public clouds are rendered for the open for public use. Private and public cloud are same but difference on the accessing the data centres via internet network not with the dedicated virtual private network. Hybrid cloud consists of private and public clouds.

IV. PARADIGM FLOWING IN IT SERVICES

The main goal of cloud computing is that to performs the computations within the seconds that are used in the military purposes. Cloud computing software is accessed by the users through desktop computers, tablets and smartphones. Research activities of cloud computing are user oriented application, it provides large data storage area, less economically, deliver appropriate information and new computer games. Cloud computing collection of networks and group of servers where large amount of data stored which is available at low cost. Cloud computing provides specialized technology and common infrastructure. So the IT organizations shared the link to cloud computing infrastructure to accessing and storing the data. This term known as virtualization power of a cloud computing. Cloud computing architecture involves various component of the cloud software that are loosely mechanism related to each other and delivered the message in the queue. Cloud computing emerged for the small organization's where less infrastructure available due to lack of time and financially not provides good support. In the small scale organization they have not giving much time to maintain and deployment in the infrastructure like storage and services. Now the paradigm is shifted to the IT organization where they need storage infrastructure without paying big amount for the infrastructure. So it will increase the growth of the industry and provides innovative ideas to the organizations. Cloud computing accessed by the data centers where resources are available in the form of virtual, scalable and secure. IT organizations taking the benefits for the cloud computing technology that is they add or remove the services according to their needs and only pay for the resources when they use or needs. Cloud computing shifts the paradigm into the IT services delivery. Cloud computing provides flexibility, easy accessing of the data at any time to the users. The internet users increase day by day, so the demand of the users also increases exponentially. The core feature of cloud computing is the future of an IT industries. The organizations firstly works upon the gathering the requirement of the users and also gathering the current challenges associated with the computing environment, so that leading cloud computing software would be developed. They ensure the flexible and efficient growth of the infrastructure with the newer innovations. Internet gaining popularity over the current years, so the large amount of data is communicated over the internet it will leads to the security problem. Since the top concerned matter for the cloud computing is the security [2]. Over the years the paradigm of the companies is shifted or replaced with the innovations rather than growing business or economic cost. Innovations are boost up the

performance improvement of the organizations. When concentrate on the IT challenge that will lead to the adoption of the new services and products. Some of the organizational challenge becomes the obstacles for the operational activity they are:-

- Service availability whenever the data is required it will be available for the organizations. The availability of the data is provided by the cloud computing software, so it becomes a paradigm shift for delivery of services in IT organizations.
- Scalable storage means flexibility increasing the data storage capacity whenever the demand of the data goes increasing.
- Sharing information one of the important work done by the cloud computing is sharing information among the organizations.
- Data security when data moving from private to public it needs security.

Cloud computing is most recent paradigm shift for the delivery of services in the IT industry. The other paradigms centralized, decentralized and distributive are based on the simple technology. Centralized, decentralized and distributive paradigm having their own advantages and disadvantages while cloud computing different viewpoints and definitions. Accessing the data from cloud based services is the good access of the networking. Anyone can use the cloud services in the communicating environment of the internet. Cloud computing provides the following IT concepts are:-

- Cloud computing finding the best of breed whenever they required. Cloud computing provides easy accessing facility of services.
- Cloud computing introducing with the best innovations. Today's environment only focused on the new innovations instead of the focusing the growth of the business or organization.
- Most appropriate and right data delivery for the IT services. Whenever the data is required the most appropriate and useful data is delivered to the IT organizations.
- Scalability of the models is incorporated in the cloud computing software infrastructure.
- Cloud computing provide open source solution for the commercial vendor and for IT organizations. Open source means it is good or it can be better. Good means cloud computing provides the good concept of storing and accessing infrastructure of data. Better in the way to availability of the data.
- Technology of cloud computing based on the virtualization. It seems clouds are available for the accessing and storage of the data. Actually they represent the data in the virtualized form. Internet is required to access this virtualized technology.

V. CONCLUSIONS

We conclude that this paper gives introduction of cloud computing and how shifting paradigms in IT services. Cloud computing is the useful technique for the IT organization because storage infrastructure is available on the demand whenever they required by the cloud computing software. Cloud computing based on the virtual environment it will be available for the users on ease at any time with low cost. The futuristic issue of the cloud computing is that how clouds can used for the organization. Cloud computing is still a research topic in the commercial organizations.

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