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Review Paper on Cloud Computing With Real-Time Media Streaming Using Virtual Private Drive

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Abstract: Cloud computing refers to the delivery of computing resources over the Internet. Without storing the data on the external hard drive or updating applications for your needs, we use a service on the internet to store the information at another location. Cloud computing involves deploying groups of remote servers and software networks that allow centralized data storage and online access to computer services or resources. Cloud services allow individuals and businesses to use software and hardware that are managed by third parties at remote locations. Cloud service includes storage of online file, webmail, and online business applications. Cloud computing is a pool of shared resources, which includes space for data storage, efficient computer processing and specialized corporate and user applications. This paper introduces a technique to provide an application which can be deployed into the cloud to access the data online. To achieve this we are using cloud as "Software as a Service" (SaaS).

Keywords: Cloud, cloud computing, SaaS.

I. INTRODUCTION

Cloud computing is a recently evolved computing terminology based on utility and consumption of computing resources .Cloud computing is the delivery of computing services over the Internet. Cloud services allow both individuals and businesses to use software and hardware managed by third parties which are present at remote locations. The cloud computing allows accessing to information and computer resources from any remote locations where network connection is available. The cloud computing promises to radically change the way computer application and services are constructed delivered and managed.

Cloud can be private, public or hybrid.

A private cloud is a virtual data center that operates within a firewall. Private clouds are highly conceptualized, joined together by large number of IT infrastructure into resource pools and privately owned and managed.

A public cloud is a cloud model in which services, like applications and data storage are generally used over the internet. In this model, a third-party provider delivers the cloud service over the Internet. Public cloud services has pay-per-usage mode, typically by the minute or the hour. Leading public cloud providers include Amazon Web Services (AWS), Microsoft Azure, IBM/Soft Layer and Google Compute Engine.

Hybrid cloud is a combination of public cloud services and private cloud. The aim of hybrid cloud is to create a single, automated, scalable environment which can take all the advantages of a public cloud infrastructure provides.

The cloud computing service models are Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). In Software as a Service model, a pre-made application, along with any required hardware, software, network and operating system are provided. In PaaS model, the customers are provided with an operating system, network and hardware and they install or develop their own applications. The IaaS model just provides network and hardware and the customer installs or develops its own operating systems, applications and software.

II. LITERATURE REVIEW

This paper discusses the dynamic nature of cloud computing and explain how it builds the applications on established trends while changing the way that enterprises uses to build and deploy the applications in the cloud. It proceeds to discuss the architectural considerations that cloud architects must make while designing a cloud-based applications. Cloud computing supports every aspects like, server, data storage, computer networks etc [1].

This paper will reintroduce and reiterate some of the traditional concepts and discuss how they may evolve the concept of cloud computing. This paper also introduces the concept such as elasticity that has evolved due to the dynamic nature of the cloud. This paper is divided into two sections.

In the first section, we describe an example of an application that is currently under production using the on-demand infrastructure provided by Amazon Web Services. In this application the developer can perform pattern-matching from millions of web documents.

In the second section, this paper discusses some best practices for using various Amazon Web Services such as - Amazon S3, Amazon SQS, Amazon Simple DB and Amazon EC2 - to build industrial-strength measurable applications [2].

In this paper, a survey on various platforms of cloud, foundation, their arrangements and infrastructure services and their capabilities used in some of the leading software companies of the world is presented. The software as a service (SaaS) approach frees the users from the need to buy and maintain information technology (IT) infrastructure, but it also causes many new anomalies to developers to write new applications [3].

This paper presents the new trend which opens the doors for the Small and Medium enterprise(SME) organization for their survival and to compete with large organization with their Skills. Low entry cost allowing startup companies to deploy new technology products quickly. Cloud computing allows the user to access servers, Centralised database, software, and any of the network equipment. The leading Web services companies have built their businesses around innovative new approaches to IT infrastructure that maximize data centric management and efficiency that have given them a distinct advantage over competitors[4].

III. METHODOLOGY

Cloud computing is a type of computing that relies on *sharing computing resources* rather than having local servers or personal devices to handle applications. In cloud computing, the word cloud (also phrased as "the cloud") is used as

a metaphor for ("*the Internet*") so the word *cloud computing* refers "a type of Internet-based computing," in which different applications and services like storage and servers are delivered to the computers and devices of an organization through the Internet. Cloud computing is different from grid computing, a type of computing in which unused processing cycles of all computers in a network are harnesses to solve problems for any stand-alone machine.

The cloud computing provides basically three types of services:

1. Infrastructure as a Service (IaaS): Infrastructure as a service provides companies with computing resources which includes servers, storage, and networking on a pay-per-use basis.
2. Software as a Service (SaaS): Software as a service (SaaS) runs on distant computers "in the cloud" that are owned and operated by others and that connect to the user computers via the Internet and, generally, a web browser.
3. Platform as a Service (PaaS): Platform as a service provides a cloud-based environment with everything required to support the complete life cycle of building and delivering web-based (cloud) applications—without the cost and complexity of buying and managing the underlying hardware, software, provisioning and hosting.

IV.PROPOSED PLAN OF WORK

The problems with the existing system are that we have to download the files every time from the cloud if we have to view or access the related files thus downloading every time everything exhausts a lot of memory and bandwidth. Thus to avoid this loss of memory and bandwidth we have proposed to have this option of online viewing from our cloud.

Our project is divided into three modules based upon the functions used such as Registration module, Verification module and Homepage as follows:

1) **Registration Module:** In the registration module first a user needs to register him by providing necessary information such as name, email address and password. After successful registration the user will get access to his personal home page where he/she will be able to perform various operations like uploading and downloading of doc files, pdf files, mp3 files, video files, etc. The user will be able to view his personal files online without downloading them.

2) **Verification Module:** After the user has registered himself successfully, the user will get a unique alphanumeric verification code to his email id which is provided by the user during registration using the New Guid ( ) method. The random code generated by the system will have to entre during login for the first time by the user. This is a onetime process (OTP). If the code entered by the user is correct, the user will be logged in.

3) **Homepage:** After the successful registration and passing the verification module the specific user will get access to his personal home page where he/she can perform various operations like uploading and downloading of doc files, pdf files, mp3 files, video files. Homepage will show list of file uploaded by user from user specific directory.

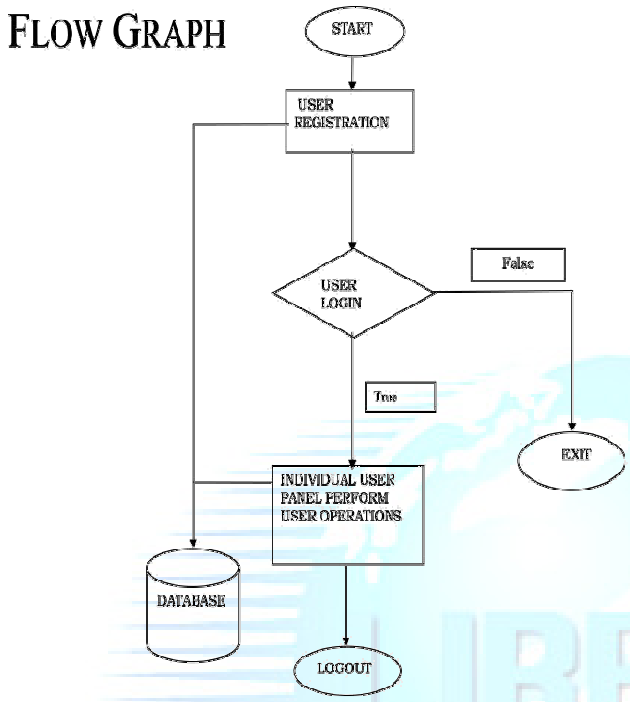

Figure: Flow Diagram of Working.

VII. CONCLUSION

The study shows that the cloud which is a metaphor for ("the internet") has various advantages in the twenty first century as cloud provides various function that are very useful for multinationals, small and medium enterprises. The functions provided by the cloud are server, centralized database. Cloud computing a recently evolved computing terminology based on utility and consumption of computing resources .Cloud computing is the delivery of computing services over the Internet. Cloud services allow individuals and businesses to use software and hardware that are managed by third parties at remote locations. The cloud computing model allows access to information and computer resources from anywhere that a network connection is available. The cloud computing promises to radically change the way computer application and services are constructed delivered and managed.

VI.ADVANTAGES

1) Centralised Database: As cloud provides unlimited storage of data and the data which has been uploaded by the user is stored in a centralised database of the cloud.
2) Almost Unlimited Storage: As cloud provides storage in centralised database thus user can store up to unlimited data.
3) Easy Access to Information: The cloud has this feature as to provide ease of information access to user so that they are able to access the required data accurately and in quick time.

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