

CLOUD COMPUTING REVIEW

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Abstract - Cloud computing is everywhere. If we visit any IT companies, it will be sure that they will talk about cloud computing. But interesting thing is to note that if we asks about cloud computing to ten different professionals, they will give ten different answers, and those are worth.so this cloud computing is very spread out and wide. Thus cloud computing can be said as a large warehouse for the data storage. Many ITs companies has large demand of data storage, which is not possible on their parts. It would costs huge amount of economy. Thus it is important to find out an alternate source for the storage of their data.at the same time, this storage should be safe, easy to handle and economical. Moreover, it would provide storage according to the demand and paid accordingly. Therefore, cloud computing has become a vital part for all the private sectors as well as government sectors in order to fulfill their demand.

In this project we are going to deal about all the basis of cloud computing. What it is? How it works? How it is developed? How it is deployed and many more. Hence we will clear up all the misconceptions and make sure we all have a common understanding of the topic.

Key Words: Cloud Computing; Data Storage; Deployed; Misconceptions; Developed

1. INTRODUCTION

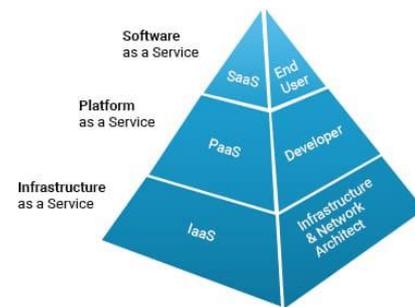
cloud is an extend of grid computing, distributed computing and parallel computing where everything is serve as service. It is a model for enabling convenient, on demand network access to a shared pool of configurable computing resources. Thus cloud computing can be said to provide Internet-based computing service.

Cloudcomputing builds on already existing computing technologies, such as, grid computing and virtualisation. These are the forms of the distributed computing technologies.

2. BACKGROUND

Cloud computing consists of three models, namely

- SaaS (software –as-a-service)
- PaaS (platform-as-a-service)
- IaaS (Infrastructure-as-a-service)



2.1 SaaS (SOFTWARE –AS-A-SERVICE)

SaaS provides a full-fledged UI for a service or a complete software application to the user which they can use. Cloud service providers (CSP) manage the underlying architecture like operating systems, servers, network and storage along with application development and maintenance.

The user only uses this software and is completely unaware of the cloud architecture. User can access such applications via web browsers from desktops, workstations, laptops, etc. and can also use app on handheld devices if available.

2.2 PaaS (PLATFORM-AS-A-SERVICE)

In PaaS cloud service provides application development tools, application programming interface, software libraries and all other services needed for a complete application development.

Cloud service providers manages the underlying architecture like operating system, servers, network and storage Users manage developing, deploying configuring and maintaining application developed over the cloud.

2.3 IaaS (INFRASTRUCTURE-AS-A-SERVICE)

IaaS provides computing and storage resources to the user as per requirement. Computing and storage environment is provided in the virtual manner to the user. This storage space and computing resources such as RAM, processor power etc is managed by the user in the virtual space.

The under lying implementation is managed by the cloud service provider. User can install any OS and applications as per need on this virtual space provided on the cloud. User

can start, stop, manage and configure this space accordingly and will be charged as per use.

3 APPLICATIONS

So, now we get to the question-what does cloud computing actually do? To this, we have applications running on our laptops, servers and phones. Cloud computing either has them too or has the potential to bring them to you. This cloud computing brings application a way of viewing, manipulating and sharing data.

4 BENEFITS

Cloud computing provides number of offers for the organization which can be explained below

4.1 SCALABILITY

If a company is anticipating a huge upswing in computing need, cloud computing can manage. Instead of buying and configuring new storage, cloud computing provides additional storage from third party.

4.2 SIMPLICITY

The installation of cloud computing is very simple. It helps the start of the application immediately and it costs a fraction to implement it.

4.3 SECURITY

There are number of security risks when storing any data in the cloud storage. But reputable companies enforce themselves to keep their safe and secure.

4.4 STORAGE

Cloud computing provides the user the required storage. Moreover, cloud computing gives freedom of storing data by user anytime. Only it needs the internet connections.

5. LIMITATIONS:

Although cloud-storage has a numerous advantage/benefits it provides to the user. But it is restricted by certain boundaries. Cloud computing is surrounded by a number of factors which limits its expansion. A user has advantage of storing its data in the cloud. He/she can store huge bulk of storage, starting from very basic to very personal. It makes the cloud computing bound within certain boundaries. There are always certain possibilities of losing the data stored in it. An IT's companies stores its private, most confidential data on it, if there get into other hand, it can ruin their company. Hence the providers always look for the alternate ways of securing their data. They invest more and more money to secure their private files by making their security level upgraded every time. Moreover it has become much easier

for the government to get information from third parties than from private owned server.



6. DESIGN PRINCIPLES OF CLOUD COMPUTING

Amazon was the first company which introduces the concept of cloud computing. Amazon used the following concept in designing the cloud computing.

6.1 DECENTRALISATION: It uses fully decentralized technique to remove scaling bottlenecks and single point of failure.

6.2 LOCAL RESPONSIBILITY: Each individual component is responsible for achieving its consistency.

6.3 SYMMETRY: Modes in the system are identical in terms of functionality, and require no or minimal node-specific configuration to function.

6.4 AUTONOMY: This system is designed such that individuals Components can make decision based on the local information.

6.5 FAILURE TOLERATION: The system consider the failure of the components to be normal mode of operation and continues operation with no or minimal interruption.

Other feature includes

- Controlled concurrency
- Controlled parallelism
- Simplicity

7. CONCLUSIONS AND FUTURE SCOPE

In this paper we have discussed about the cloud computing and its services, quality and advantages. It deals with what cloud computing is? How it works? How it is developed? Thus it can be said that cloud computing is beneficial, convenient and economical for IT industry.

Future scope of cloud computing can be explained as

- Trend of Large Vendors Entering Cloud Computing Will Accelerate.
- All Major IDEs Will Offer Cloud Deployment Options,
- Platform-as-a-Service Will Take Its First Steps into the Mainstream
- A Next-Generation of “Middleware for the Cloud” will Rise in dominance over Traditional J2EE Application Servers
- System Administration & Configuration and Network Management Will Become a Sexy Field Bursting with Innovation

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