

Cloud Service Models

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Abstract- Cloud computing has many benefits including cost reduction and ease of use. The main features of cloud computing are elasticity, reliability, availability and virtualization. Cloud computing is the latest technology which has lots of benefits. In cloud computing computer resources (hardware and software) are provided to cloud consumer on pay per use basis. The cloud provides many services over the internet on pay per use basis. In this paper I will discuss about the cloud services which are provided on the cloud by the cloud service provider. The cloud services are available globally which makes them more important and valuable for cloud users.

Keywords- Cloud, Web, Services

I. INTRODUCTION

There are various services which are provided to the cloud users by cloud service providers. In this paper I will discuss cloud like Communication as a Service(CaaS), Infrastructure as a Service(IaaS), Platform as a Service(PaaS), and Software as a Service(SaaS). There are many ways in which infrastructure can be maintain on cloud, infrastructure and be owned by cloud service provider itself or it may be outsourced by thir party. Similarly Platforms available on cloud can be implemented by cloud owner itself or they can be outsource from third party. The essential characteristics of cloud computing are on demand self-service, ubiquitous network access, resource pooling, location independence and rapid elasticity. There are four types of cloud as private cloud , public cloud, community cloud and hybrid cloud according to the accessibility of the cloud. Private cloud is made for some company or organization for use internally only. Public cloud is made available for all users. Community cloud is made for a particular community while hybrid cloud is the combination of all clouds(i.e. puclic, private and community).

II. CLOUD SERVICES

1. *Communication as a Service-*

Communication as a Service is an out source service maintain by third party. CaaS service providers are responsible to maintain hardware and software to deliver to deliver Voice over Internet Protocol (VoIP), video conferencing and Instant Messaging (IM). CaaS service providers usually assure to provide Quality of Service (QoS) under the Service Level Agreement (SLA). CaaS model provides the ability for cloud users to deploy communication features and services on pay per use basis.

2. *Infrastructure as a Service-*

Infrastructure as a Service provides network, internet connectivity, data base, and infrastructure to deploy operating system. Infrastructure as a Service (IaaS) provides an infrastructure to the cloud user which is specifically customise to meet cloud use needs. On Demand computing is gaining very popularity in recent years. With on demand computing computer resources are made available to cloud user on demand basis. For example, Amazon EC2 presents a true virtual computing environment, allowing clients to use a web-based interface to obtain and manage services needed to launch one or more instances of a variety of operating systems.

3. *Monitoring as a Service-*

Monitoring as a Service (MaaS) is cloud web service is use to care of security specifically of a business enterprise. MaaS is usually an outsourced provision. Security monitoring involves in protecting cloud users from cyber threats. A security team has a crucial role in securing and maintaining the confidentiality, integrity, and availability (CIA triad) of IT assets. Many companies want to manage their internal as well as external threat. So MaaS is responsible to fulfill this need of security.

4. *Platform as a Service-*

In Platform as a Service (PaaS) an environment is given to cloud user in which cloud users can install their application software. In addition to that a programming environment is given to cloud users so that they can develop new applications and software. PaaS provides a very fast and efficient environment for application

development. Prime characteristics of PaaS services are to develop, test, deploy, host, and manage applications to support the application development life cycle. Web based user interface design tools typically provide some level of support to simplify the creation of user interfaces, based either on common standards such as HTML and JavaScript , proprietary technologies. A multitenant architecture helps to remove developer concerns regarding the use of the application by many concurrent users. PaaS providers often provide services for concurrency management, scalability, and security

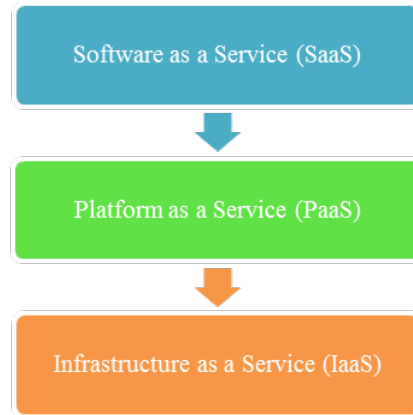


Figure 1. Cloud service models

5. *Software as a Service-*

Software as a Service (SaaS) is a cloud service in which applications and software available on cloud are offer to cloud users on demand bases. SaaS provides greater flexibility of software uses for cloud user. SaaS decreases the cost for cloud user because cloud users can pay to cloud provider as much only as they use software. SaaS also increases the availability of required software globally and all the time. Most of the consumers do not want to know how the softwares are implemented; they are interested only in using softwares for their purpose.

III. CONCLUSION

There are various services which are provided on cloud by cloud service provider such as Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), Network as a Service, Security as a Service (SaaS), Communication as a Service, etc. In this paper I have examined the various services provided by cloud computing. SaaS is the most popular cloud service but other services like PaaS, IaaS,CaaS and MaaS are equally important. There are lots of benefits using cloud computing because cloud have different look for different types of user and cloud has the ability to fulfill needs of different user as per their requirements.

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