# Meticulous Analysis of Services Present In Cloud Computing Technologies

M.Akila[1], Dr.S.Ravichandran[2]
*1 Research Scholar, PG and Research Department of Computer Science,*
*H.H  The Rajah's College(A), Pudukkottai.*
*2 Assistant Professor and Head, PG and Research Department of Computer Science,*
*H.H  The Rajah's College(A), Pudukkottai.*
*Email : .  vsakilasubbu@yahoo.com1, rajahsravis@gmail.com 2*

**Abstract-** Cloud computing is used literally everywhere around the globe. It is the emerging innovation, particularly for the business firms around the globe. Cloud computing is a model for empowering advantageous, on-request arrangement to access a common pool of configurable computing resources present in a remote place. This cloud model is composed of three service models,namely  Iaas, Paas, Saas. Sometimes the services called cloud computing stack because they build on top of one another. The first cloud computing type is infrastructure-as-a-service (IaaS), which is used for Internet-based access to storage and computing power.

**Keywords**:  Cloud computing, performance evaluation, cloud services.

## 1.    INTRODUCTION

Cloud computing is a new technology for companies to access IT infrastructure, software and hardware resources.Cloud computing mainly helps the business people in numerous and efficient ways. Since cloud computing technology is service oriented, it is mainly used in the business environment. Earlier our data and information are stored in the physical hard drive, but today the cloud computing services enables and provides the users an opportunity to utilize the storage present in remote places. The companies rendering this service is called as cloud service providers(csp).The CSP providing the service based on pay-per-use method.Without our knowledge daily every online user utilizes the cloud service in the form of web based e-mail service,watching movies through the internet, storing pictures etc.This paper discusses the concept of cloud services and service providers.

### 1.1  Infrastructure as a service (Iaas)

Infrastructure as a service is a lowest level service solution for cloud computing infrastructure. If a user want to work in a particular software environment but not intended to buy any equipment(server or any hardware equipment)and not afford to purchase software can use the Iaas service environment (virtual).

### *Benefits of IaaS Solutions*

- Reduces total cost of ownership and capital expenditures
- Users pay for the service that they want, on the go.

- Access to enterprise-grade IT resources and infrastructure
- Users can scale up and down based on their requirements at any time[1]
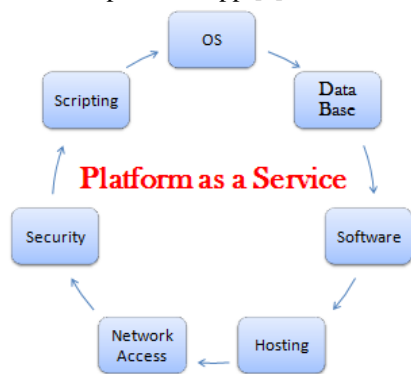
**Cloud service providers:**

| IAAS Service Providers | PAAS service Providers | SAAS Service Providers |
|---|---|---|
| Amazon AWS | Acquia Cloud | Slack |
| Cloud Stack | BitNami | Shopify |
| Azure | AppAgile | MailChimp |
| Open stack | CloudBees | Salesforce |
| Blue Lock | Engine Yard | HubSpot |

### 1.2 Platform as a service(Paas)

Paas is a computing platform for developing or hosting applications. It acts as a mediator service between Saas and Iaas. It provide tools to be developed ina particular platform. For example, Microsoft's Windows Azure gives tools to develop mobile apps, social apps, games etc with the support of APIs . The main beneficiaries of PaaS are developer community since no upgrades are required, Lower cost and simplified deployment.

PaaS types are CPaaS and MPaaS. CPaaS provides communication platform as a service and enables the developers to add the real time

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communications like(video,message,etc.,) in their own applications without any support of infrastructure and interfaces. MPaaS is Mobile platform as a Service. Itis initiated in 2012 only. It is mainly used to develop mobile app.[7]



### 1.3 Software as a Service(SaaS)

SaaS is a licensing and delivery model where the software is centrally managed and hosted by a provider and available to consumer on a membership basis. Saas is the top of the three services (Iaas,Paas,Saas).Saas is mainly used by the business fraternity.SaaS providers often need to reach customers in a broad range of geographies. Managing and optimizing costs is essential to SaaS environments. Example is   SaaSIndia provides Software as a Service, Content management systems, IT infrastructure consulting etc.
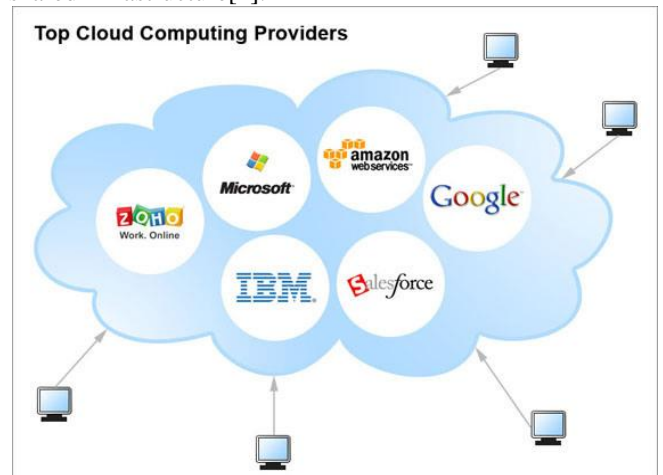
### 1.4 Recovery as a Service (RaaS)

RaaS providers provide the much needed protection to the data centre and recover the corrupted data in the data servers(applications,OS etc.,)for the companies.Raas  mainly helps the business people in calamity and when the disasters occurs.  So,it is also called as DRaaS(Disaster Recovery as a Service). Using this service the companies prevent temporary or permanent loss of critical data.

According to a Gartner report, 30 percent of midsize companies will have adopted cloud recovery service by 2014. Recovery as a Service (RaaS) solutions helps companies to replace their backup, archiving, disaster recovery and business continuity solutions in a single, integrated platform[1]. Example of companies doing RaaS are Geminare, WindStream Business and nScaled.

### 1.5 Cloud service providers (CSP)

CSP are companies that offers network services, infrastructure, or business applications in the cloud. The cloud services are hosted in a data centre than can be accessed by companies or individuals using network connectivity.The large benefit of using a cloud service provider comes in efficiency and economies of scale. Rather than individuals and companies building their own infrastructure to support internal services and applications, the services can be purchased from the CSP, which provide the services to many customers from a shared infrastructure[2].



**Cloud service providers:**

- IBM Bengaluru, India
- Cisco Systems:
-  VMware
- Sify
- Orangescape

## 2.   CLOUD SERVICES

| Service Provider | SAAS | PAAS | IAAS |
|---|---|---|---|
| Google | yes | yes | yes |
| IBM | yes | yes | yes |
| Salesforce.com | yes | yes | No |
| Microsoft | yes | yes | yes |
| Amazon | No | yes | yes |

### 2.1  Cloud Storage Providers

Cloud storage is a cloud computing model in which data is stored on remote servers accessed from the internet, or "cloud." It is maintained, operated and managed by a cloud storage service provider on a storage server that is built on virtualization techniques.Cloud storage is also known as utility storage – a term subject to differentiation based on actual implementation and service delivery[6].

A cloud storage provider is otherwise called as MSP(managed service provider) .MSP provides unlimited data storage service to the individual and corporate companies based on demand. Users can then access files using an internet connection.

Rather than store data on local storage devices, such as a hard disk drive, flash storage or tape, customers choose a cloud storage provider to host data on a system in

a remote data centre. A cloud storage provider hosts a customer's data in its own data centre, providing fee-based computing, networking and storage infrastructure. Both individual and corporate customers can get unlimited storage capacity on a provider's servers at a low per-gigabyte price[5].

**The best cloud storage of 2018**
- Dropbox.
- Google Drive.
- Mega.
- OneDrive. iCloud.
- NextCloud.
- SpiderOak.

## 3. CONCLUSION

Businesses can benefit from cloud services by improving efficiency and reducing costs. Companies can adopt cloud services based on their priorities, areas of expertise and business processes. Meticulous planning and preparation should be done by the business firms before switching to the cloud services and should adopt the best provider based on the requirement and need.

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