

# A BRIEF INTRODUCTION TO AWS TECHNOLOGY

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**Abstract:** Today most of the companies are migrating their work on cloud platform technology in IT Industry. There is also a good carrier opportunity in cloud technology. Higher packages are offered by Cloud based company like Amazon, Microsoft, and Google etc. Every Technical Professional needs to understand the needs of cloud platforms due to importance and utilization of cloud technology in real time scenario. This technology is highly accepted by market due to several unique features, like on demand delivery, Resource sharing and data security. Today there are two major issues i.e. limited storage and data retrieval factors in data storage and data retrieval. The beauty of cloud is that you can store any type of data, any size of data in cloud platform with least cost. Most of the cloud provider follow Pay as you go price. It means you have to only pay for cloud services as you use them.

**Keywords:** AWS, Multi-tenancy, IaaS, PaaS and SaaS.

## I. INTRODUCTION

In the year 2000, AWS was founded. Before experience with establish Merchant.com, AWS works on e commerce as a service for 3<sup>rd</sup> party distributor to establish self web-stores, prompted them to follow SOA (service oriented architecture) as a means of scaling their operations, and proceeded by the CTO, Allan Vermeulen. In year 2006 AWS (Amazon Web Services) was began to start offering Infrastructure as a service to their customers as a service: now we call this Cloud Computing. With IaaS AWS provides server, storage, database and networking on demand. AWS provide on demand delivery of the computing services. With this technology you have no requirement of physical space for your company, do not need to maintain any server, all this take care by AWS itself. The Features like high reliability and scalability and lowest cost provided by AWS that give strength to 1000 of business in one ninety countries across world. AWS is providing On-demand cloud computing APIs and Services to individuals, governments and businesses on a pay-as-you-go price.

## II. WHAT IS CLOUD COMPUTING?

AWS is a cloud computing platform. Cloud computing means delivery of resources like on-demand distribution of virtual computer, storage, database, applications, and IT resources

through an internet based cloud services platform with pay as you go model.

## Features of Cloud Computing

There are some important features of cloud computing are the followings:

1. Resources blending
2. Light Maintenance
3. On-Demand buffet
4. Expandable and Rapid Elasticity
5. Cost effective
6. Consistent and Describing Service
7. Security
8. Larger Network Access

## III. ADVANTAGES OF CLOUD COMPUTING

The followings are the six benefits of AWS:

1. Trade tight expense for
2. Fluctuating expense
3. Stop Guessing Capacity
4. Massive Economies of Scale
5. Stop spend money maintaining and running data centers
6. Go global in seconds
7. Increase agility

## IV. CLOUD COMPUTING MODEL

### 1. Infrastructure as a Service

Under IaaS Cloud provider provides network feature in the form of virtual private networks, virtual computer (multi-tenancy and dedicated mode), storage space (object or block) that are require to build the Cloud Infrastructure. The feature like flexibility and management control are provided by IaaS. In IaaS user need not to worry about the configuration of their computer according to need.

### 2. (PaaS)Platform as a Service

Under the PaaS (Platform as a Service) there is no requirement of control infrastructure (OS and Hardware). It allows developer to concentrate on application design and

management. PaaS is more effective because you would not trouble about resource acquirement, retention devising that arrive with executing your application.

### 3. Software as a Service

Under the SaaS (Software as a Service) you have complete product that are execute and manage by the service provider. If anyone talks about SaaS then it means end user application that is ready to use. With a SaaS, there is no need to worry about how service are backed, you have to only think about how you will benefitted from a specific part of software.

## IV. CLOUD DEPLOYMENT MODELS

### 1. Cloud:

A cloud-based application is totally deployed in the cloud platform and runs in the cloud. Cloud applications were either generated in the cloud, relocated from current infrastructure to catch advantage of cloud computing.

### 2. Hybrid:

A hybrid deployment is used for connecting infrastructure and applications in between cloud based resources and existing non-cloud resources. The most important hybrid deployment method is to boost and grow an organization infrastructure into the cloud during connecting cloud resources to the internal system.

### 3. On-premises

The deployment of resources on premises via virtualization and resource management tools is meant to as the “private cloud” at times.

## V. AWS SERVICES

There are lots of services in AWS. But we are going to brief about the core services that are provided by AWS.

### Compute Service:

1. Amazon EC2
2. AWS Lambda
3. Elastic Load Balancing

### Storage Service:

1. Amazon Simple Storage Service(S3)
2. Amazon EBS(Elastic Block Store)
3. Amazon Elastic File System(EFS)
4. Amazon Cloud Front
5. Amazon Storage Gateway

### Database Service:

1. Amazon Relational Database Service
2. Amazon Dynamo-DB
3. Amazon Red-shift
4. Amazon Elasti-Cache

### Security Service:

1. Amazon Inspector
2. AWS Security Hub
3. AWS Key Management Service

## VI. WHAT IS AMAZON VPC?

With the Amazon VPC, you may launch AWS into a pretend virtual network. The virtual network firmly duplicates a traditional network that runs in your own data centre, by using AWS scalable infrastructure.

### Access Amazon VPC:

You can build, use, and manage your VPCs by any of the following interface:

AWS Management Console

AWS SDKs

AWS CLI

Query API

Shared Responsibility Model in in Figure 1 of AWS is shown below:

### Shared Responsibility Model: Infrastructure Services



Fig. 1[4]: Shared responsibility model

## VI. CONCLUSION

AWS is a top most cloud service provider. Lots of jobs will create on this platform, Currently lots of jobs are there like cloud engineer, cloud Architect, cloud developer, Cloud administrator etc. All leading Multinational Company are working this technology.

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