Amazon Web Services - Cloud Computing

n 2006, Amazon Web Services (AWS) started to offer IT services to the market in the form of web services, which is nowadays known as cloud computing. With this cloud, we need not plan for servers and other IT infrastructure which takes up much of time in advance.

What is Cloud Computing?

Cloud computing is an internet-based computing service in which large groups of remote servers are networked to allow centralized data storage, and online access to computer services or resources

Cloud computing is a model that enables the following features.

• Users can provision and release resources on-demand.

• Resources can be scaled up or down automatically, depending on the load.

• Resources are accessible over a network with proper security.

• Cloud service providers can enable a pay-as-you-go model, where customers are charged based on the type of resources and per usage.

Types of Clouds

There are three types of clouds − Public, Private, and Hybrid cloud.

Public Cloud In public cloud, the third-party service providers make resources and services available to their customers via Internet. Customer’s data and related security is with the service providers’ owned infrastructure.

Private Cloud A private cloud also provides almost similar features as public cloud, but the data and services are managed by the organization or by the third party only for the customer’s organization. In this type of cloud, major control is over the infrastructure so security related issues are minimized.

Hybrid Cloud A hybrid cloud is the combination of both private and public cloud. The decision to run on private or public cloud usually depends on various parameters like sensitivity of data and applications, industry certifications and required standards, regulations, etc.

Cloud Service Models

There are three types of service models in cloud − IaaS, PaaS, and SaaS.

IaaS IaaS stands for Infrastructure as a Service. It provides users with the capability to provision processing, storage, and network connectivity on demand. Using this service model, the customers can develop their own applications on these resources.

PaaS PaaS stands for Platform as a Service. Here, the service provider provides various services like databases, queues, workflow engines, e-mails, etc. to their customers. The customer can then use these components for building their own applications. The services, availability of resources and data backup are handled by the service provider that helps the customers to focus more on their application's functionality.

SaaS SaaS stands for Software as a Service. As the name suggests, here the third-party providers provide end-user applications to their customers with some administrative capability at the application level, such as the ability to create and manage their users. Also some level of customizability is possible such as the customers can use their own corporate logos, colors, etc.

Advantages of Cloud Computing Here is a list of some of the most important advantages that Cloud Computing has to offer –

Cost-Efficient –

Reliability –

Unlimited Storage –

Backup & Recovery –

Easy Access to Information –

Disadvantages of Cloud Computing

Security issues

Technical issue’s

Not easy to switch service providers