Cloud Computing

Cloud Computing provides us a means by which we can access the applications as utilities, over the

Internet. It allows us to create, configure, and customize applications online.

What is Cloud?

The term Cloud refers to a Network or Internet. In other words, we can say that Cloud is something, which is

present at remote location. Cloud can provide services over network, i.e., on public networks or on private

networks, i.e., WAN, LAN or VPN.

Applications such as e-mail, web conferencing, customer relationship management (CRM),all run in cloud.

What is Cloud Computing?

Cloud Computing refers to manipulating, configuring, and accessing the applications online. It offers online

data storage, infrastructure and application.

CHAPTER

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TUTORIALS POINT

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We need not to install a piece of software on our local PC and this is how the cloud computing

overcomes platform dependency issues. Hence, the Cloud Computing is making our business

application mobile and collaborative.

Basic Concepts

There are certain services and models working behind the scene making the cloud computing feasible and

accessible to end users. Following are the working models for cloud computing:

 Deployment Models

 Service Models

DEPLOYMENT MODELS

Deployment models define the type of access to the cloud, i.e., how the cloud is located? Cloud can have any of

the four types of access: Public, Private, Hybrid and Community.

P U B L I C C L O U D

The Public Cloud allows systems and services to be easily accessible to the general public. Public cloud may be

less secure because of its openness, e.g., e-mail.

P R I V A T E C L O U D

The Private Cloud allows systems and services to be accessible within an organization. It offers increased

security because of its private nature.

C O M M UN I T Y C L O U D

The Community Cloud allows systems and services to be accessible by group of organizations.

H Y B R I D C L O U D

The Hybrid Cloud is mixture of public and private cloud. However, the critical activities are performed using

private cloud while the non-critical activities are performed using public cloud.

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SERVICE MODELS

Service Models are the reference models on which the Cloud Computing is based. These can be categorized into

three basic service models as listed below:

1. Infrastructure as a Service (IaaS)

2. Platform as a Service (PaaS)

3. Software as a Service (SaaS)

There are many other service models all of which can take the form like XaaS, i.e., Anything as a Service. This

can be Network as a Service, Business as a Service, Identity as a Service, Database as a

Service or Strategy as a Service.

The Infrastructure as a Service (IaaS) is the most basic level of service. Each of the service models make use of

the underlying service model, i.e., each inherits the security and management mechanism from the underlying

model, as shown in the following diagram:

INFRASTRUCTURE AS A SERVICE (IAAS)

IaaS provides access to fundamental resources such as physical machines, virtual machines, virtual storage, etc.

PLATFORM AS A SERVICE (PAAS)

PaaS provides the runtime environment for applications, development & deployment tools, etc.

SOFTWARE AS A SERVICE (SAAS)

SaaS model allows to use software applications as a service to end users.