

# CLOUD COMPUTING

Cloud computing is the on-demand availability of resources like data storage and computing power. It includes the infrastructure-related hardware and also the software used to deliver the on-demand services over the internet. Cloud services users are not actively involved in the management of the network.

## BENEFITS OF CLOUD COMPUTING



**Cost effective**



**Anytime, anywhere accessibility**



**Automatic software updates**

**Better scalability options**

**Simplified maintenance**



**Better collaboration due to shared storage**

**Reduced carbon footprint**



# SERVICE MODELS OF THE CLOUD



## INFRASTRUCTURE AS A SERVICE (IaaS)

Delivers cloud computing infrastructure, servers, network, OS and storage

Clients have full control over the cloud infrastructure

Workforce often needed to manage infrastructure, this increasing costs

Highly flexible and scalable cloud computing model

Multiple users on a single piece of hardware



## PLATFORM AS A SERVICE (PaaS)

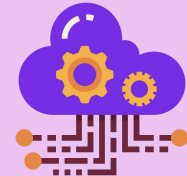
Delivers a platform for software development over the web

No constraints surrounding the OS, software, storage, or infrastructure

Adopts virtualization technology leading to better scalability

The development application can be accessed by multiple users

Ideal for development of customized apps, provides great speed and flexibility



## SOFTWARE AS A SERVICE (SaaS)

Managed by third party vendors and hosted on remote servers

Does not offer much customization and has limited functionality

Applications run through a web browser

Users are not in-charge of software and hardware updates or patches

Quick, easy and inexpensive option for startups and small companies



# TYPES OF CLOUD HOSTING



## PRIVATE CLOUD

Cloud computing that is dedicated to a single organization

Highly customizable and scalable

Developed for and operated by a single entity

Larger investments and more maintenance



## PUBLIC CLOUD

Cloud computing that uses the internet and is shared across various organizations

Less complex but decreased security, minimal control

Operated on networks open to the public

Flexible pricing and no maintenance costs



## HYBRID CLOUD

An environment that uses a mix of both - public and private clouds

Much more complex but offers better security

Better scalability without the threats of security

Best suited for organizations working in multiple verticals with different policies

### SOURCES:

<https://www.bmc.com/blogs/public-private-hybrid-cloud/>

<https://www.visualistan.com/2017/04/everything-you-need-to-understand-cloud-computing.html>

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