What is Cloud Computing??

In the simplest terms, Cloud Computing is when you use a server which is provided to you by someone else(vendors). This server has to be accessed over the internet by using a web-based tool for personal or business use.Cloud Computing provides user various services virtually.

Cloud computing makes use of remote servers on the internet to store,manage and process the data rather than the local servers.

Types of services provided by servers in Cloud Computing are:

Services fall into 4 categories:

1) Infrastructure as a service (IaaS),

2) Platform as a service (PaaS),

3) Software as a service (SaaS) and

4) FaaS (functions as a service).

These are sometimes called the cloud computing stack, because they build on top of one another.

Types of Cloud:

1) Public Cloud – Whole computing infrastructure is located on the premises of a cloud computing company that offers the cloud service.

2) Private Cloud – Hosting all your computing infrastructure yourself and is not shared. The security and control level is highest while using a private network.

3) Hybrid Cloud – using both private and public clouds, depending on their purpose. You host your most important applications on your own servers to keep them more secure and secondary applications elsewhere.

Advantages of Cloud Computing:

1. Less Costs

The services are free from capital expenditure. There are no huge costs of hardware in cloud computing. You just have to pay as you operate it and enjoy the model based on your subscription plan.

2. 24 X 7 Availability

Most of the cloud providers are truly reliable in offering their services, with most of them maintaining an uptime of 99.9%. The workers can get onto the applications needed basically from anywhere. Some of the applications even function off-line.

3. Security

Cloud computing offers great security when any sensitive data has been lost. As the data is stored in the system, it can be easily accessed even if something happens to your computer. You can even remotely wipe out data from the lost machines for avoiding it getting in the wrong hands.

4. Automated Updates on Software

In cloud computing, the server suppliers regularly update your software including the updates on security, so that you do not need to agonize on wasting your crucial time on maintaining the system. You find extra time to focus on the important things like ‘How to grow your businesses.

5. Scalability

Your business can scale up or scale down your operation and storage needs quickly to suit your situation, allowing flexibility as your needs change. Rather than purchasing and installing expensive upgrades yourself, your cloud computer service provider can handle this for you. Using the cloud frees up your time so you can get on with running your business.

6. Collaboration efficiency

Collaboration in a cloud environment gives your business the ability to communicate and share more easily outside of the traditional methods. If you are working on a project across different locations, you could use cloud computing to give employees, contractors and third parties access to the same files. You could also choose a cloud computing model that makes it easy for you to share your records with your advisers (e.g. a quick and secure way to share accounting records with your accountant or financial adviser).

7. Business continuity

Protecting your data and systems is an important part of business continuity planning. Whether you experience a natural disaster, power failure or other crisis, having your data stored in the cloud ensures it is backed up and protected in a secure and safe location. Being able to access your data again quickly allows you to conduct business as usual, minimising any downtime and loss of productivity.

Disadvantages of Cloud Computing:

1. Security

Cloud hacking cases as recent as the past few months have shown that not all cloud providers are as secure as they claim to be. As a business, you can’t afford to have sensitive information about your company or your clients fall victim to hackers. One of cloud computing’s greatest disadvantages is that you don’t always know which providers you can trust.

2. Limited Features

Not all cloud providers are created equally. When you use cloud computing for storage and backup, you should ideally be working with a provider who offers the value of unlimited bandwidth. You may also experience limited storage space or accessibility. SaaS offerings may usually begin with a free package, but you will be charged for premium offerings and extra space.

3. Network Connection Dependency

In order to reap the benefits of cloud computing, your business must always have an internet connection. Unfortunately, there is no way to get around this fact. You need a network in order to send files to the cloud and retrieve them.

4. Technical Issues

If you experience any technical issues, you have no choice but to call your hosted provider’s technical support for help. You cannot fix your cloud computing problems in-house, and some providers do not offer around-the-clock technical support.

Service provided by AWS(Amazon Web Services)

1) EC2(Elastic Compute Cloud)

-Provides secure and resizable compute capacity in cloud

-Comes under compute domain.

-Ease in scaling.

-Can be integrated into several other services.

-Pay only for what you use.