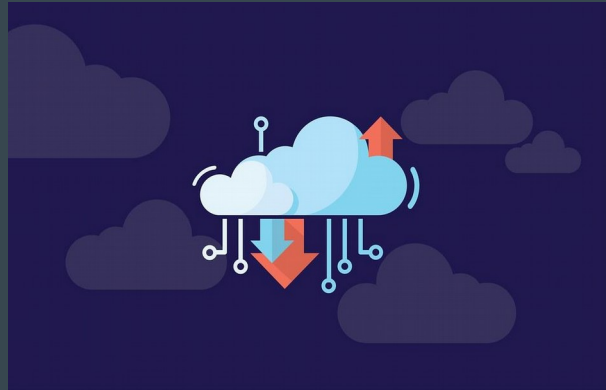
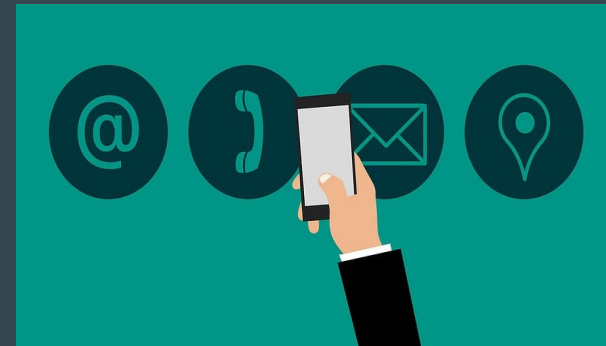
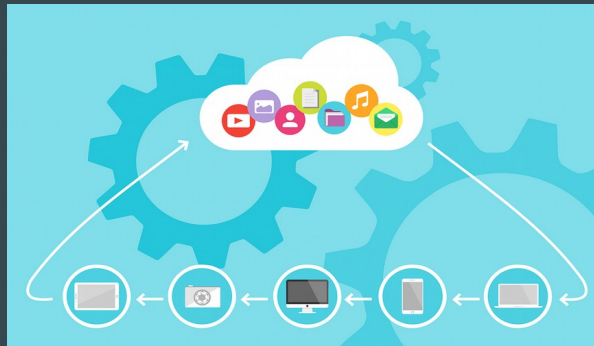


Cloud Computing



Why should we have knowledge of Cloud Computing?

Learning about **cloud computing** helps **you** to increase your Information Technology knowledge that will help **you** to get new online or offline business ideas or **you can** expand your services through **Cloud Computing**. ... **Learn** about **cloud computing** so that **you** will be able to build, test and deploy the applications and software.



What is Cloud Computing?

A cloud is simply a centralized technology platform which provides specific IT services to a selected range of users, offering the ability to log in from anywhere, ideally from any device and over any connection, including the Internet.

- Resources Pooling. ...
- On-Demand Self-Service. ...
- Easy Maintenance. ...
- Large Network Access. ...
- Availability. ...
- Automatic System. ...
- Economical. ...



Characteristics of Cloud Computing as per NIST

Cloud technology is in the news quite often these days, but it still seems to be mysterious and confusing to the non-techie crowd. Cloud options are enticing various industries across the board, which is why it's important to know its essential characteristics as a software offering. Here are the five main characteristics of cloud computing that are driving businesses today.

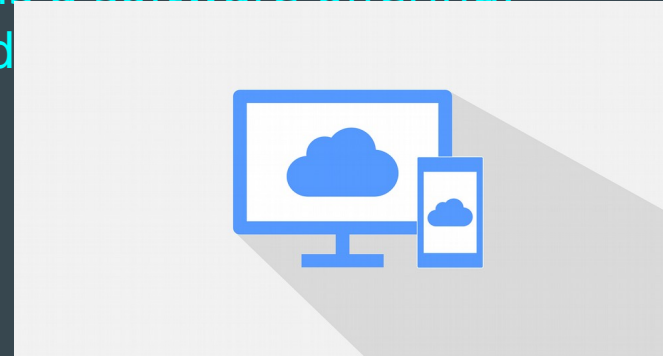
1. On-demand capabilities

2. Broad network access

3. Resource pooling.

4. Rapid elasticity.

5. Measured services.



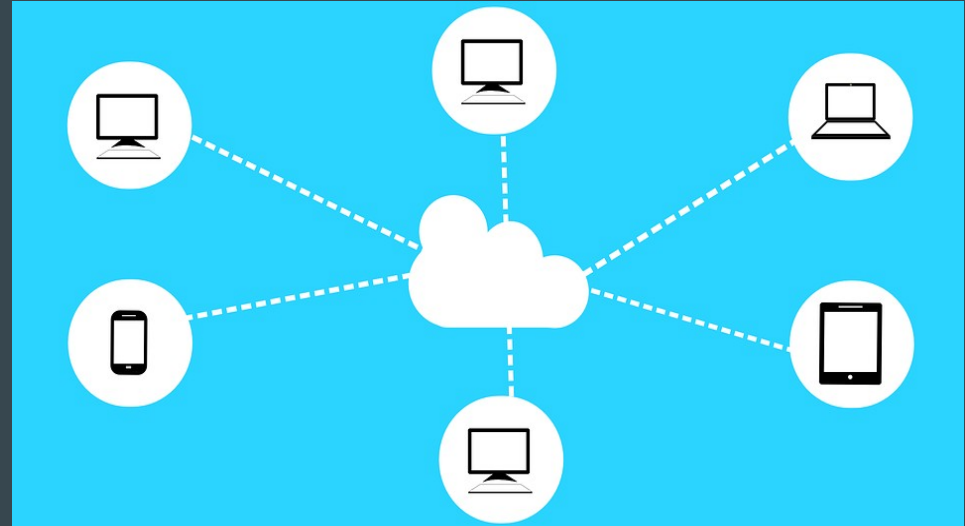
1.On-demand capabilities:

A business will secure cloud-hosting services through a cloud host provider which could be your usual software vendor. You have access to your services and you have the power to change cloud services through an online control panel or directly with the provider.



2. Broadnetwork access:

Your team can access business management solutions using their smart phones, tablets, laptops, and office computers. They can use these devices wherever they are located with a simple online access point.



3.Resource pooling:

The cloud enables your employees to enter and use data within the business management software hosted in the cloud at the same time, from any location and at any time.



4. Rapid elasticity:

If anything, the cloud is flexible and scalable to suit your immediate business needs. You can quickly and easily add or remove users, software features, and other resources.



5. Measured service:

Going back to the affordable nature of the cloud, you only pay for what you use. You and your cloud provider can measure storage levels, processing, bandwidth, and the number of user accounts and you are billed appropriately.



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Cloud Computing Reference Model

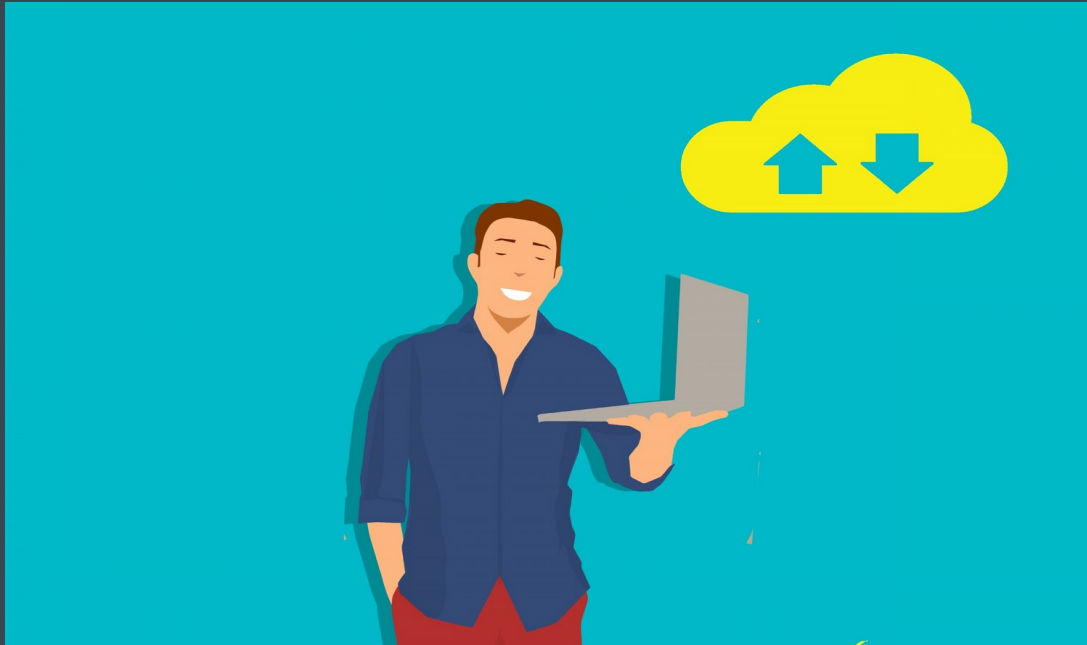
- The NIST Cloud Computing Reference Architecture consists five major actors. plays a role and performs a set of activities and functions. The reference architecture is presented as successive diagrams in increasing level of detail.

- Among the five actors, cloud brokers are optional, as cloud consumer obtain service directly from a cloud provider.



1. Cloud Consumer:

Person or organization that maintains a business relationship with, and uses service from, Cloud Providers.



2. Cloud Provider:

A person, organization or entity responsible for making a service available to Cloud Consumers.



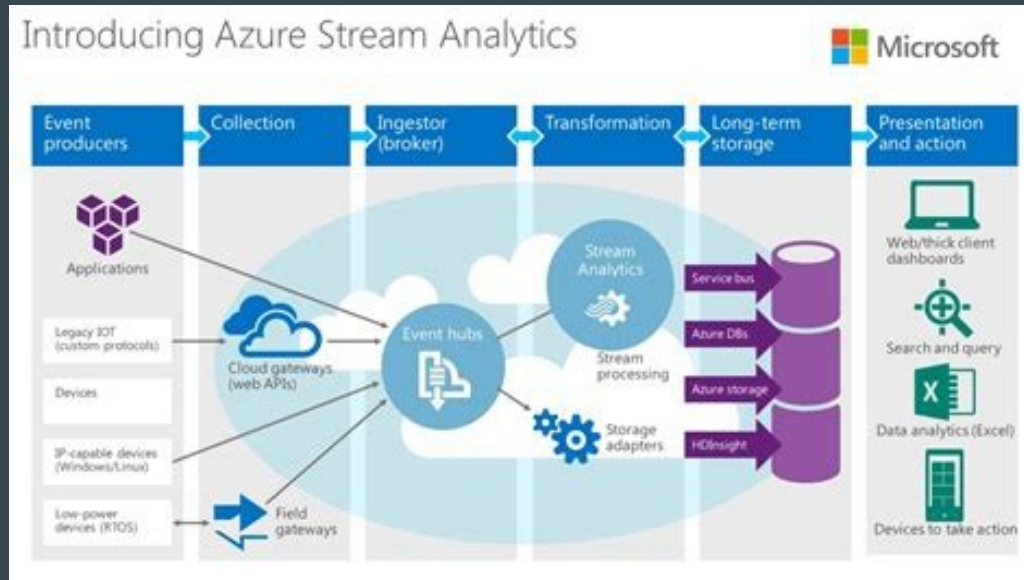
3. Cloud Auditor:

A party that can conduct an independent assessment of cloud services, information system operations, performance and security of the cloud implementation.



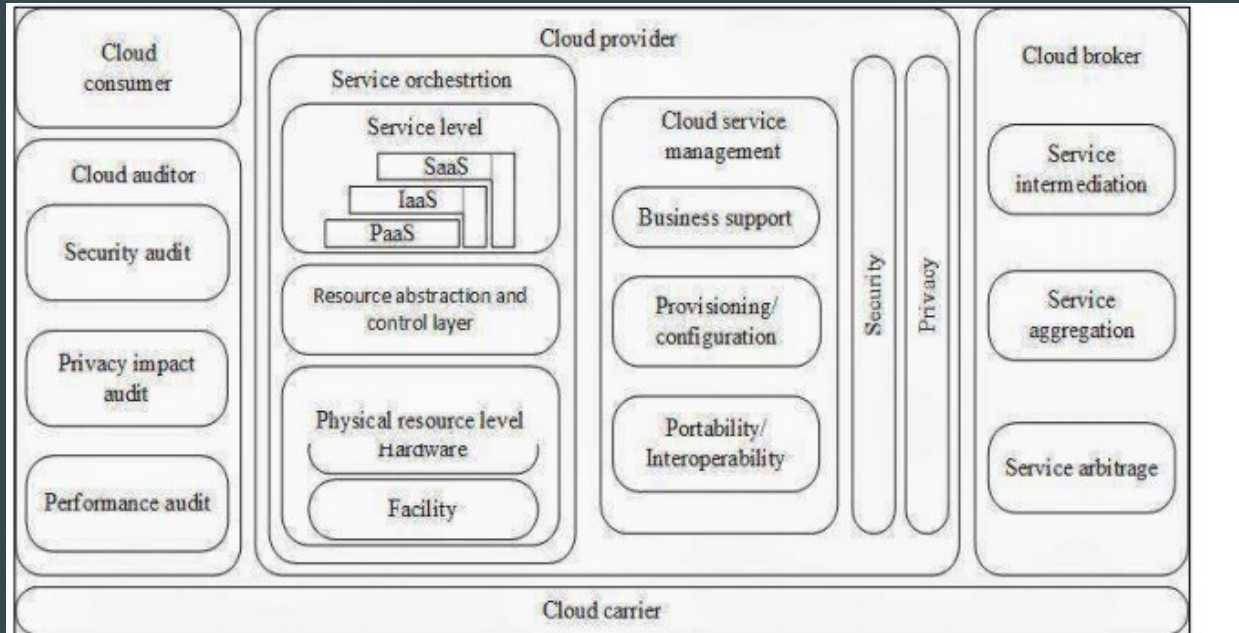
4. Cloud Broker:

An entity manages the use, performance, and delivery of cloud services, and negotiates relationships between Cloud Providers and Cloud Consumers.



5. Cloud Carrier:

The intermediary that provides connectivity and transport of cloud services from Cloud Providers to Cloud Consumers.



Cloud computing service & deployment models

According to National Institute of Standards and Technology (NIST), Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model is composed of five essential characteristics, three service models, and four deployment models.

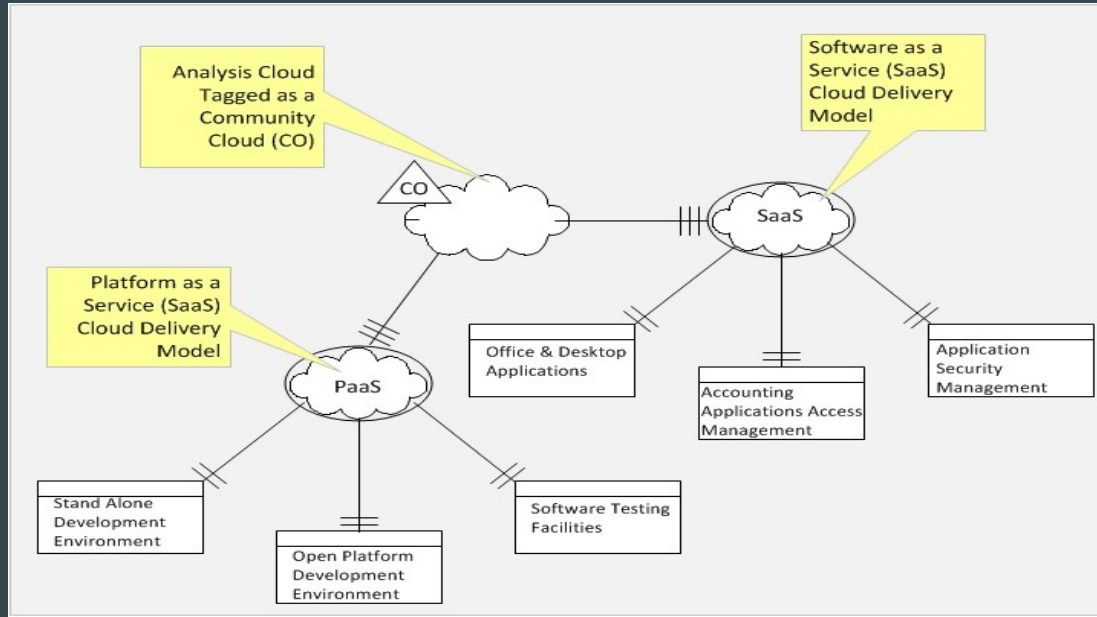
Software as a Service (SaaS).

The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based email), or a program interface.



Platform as a Service (PaaS).

The capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider.



Infrastructure as a Service (IaaS).

The capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer can deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls).



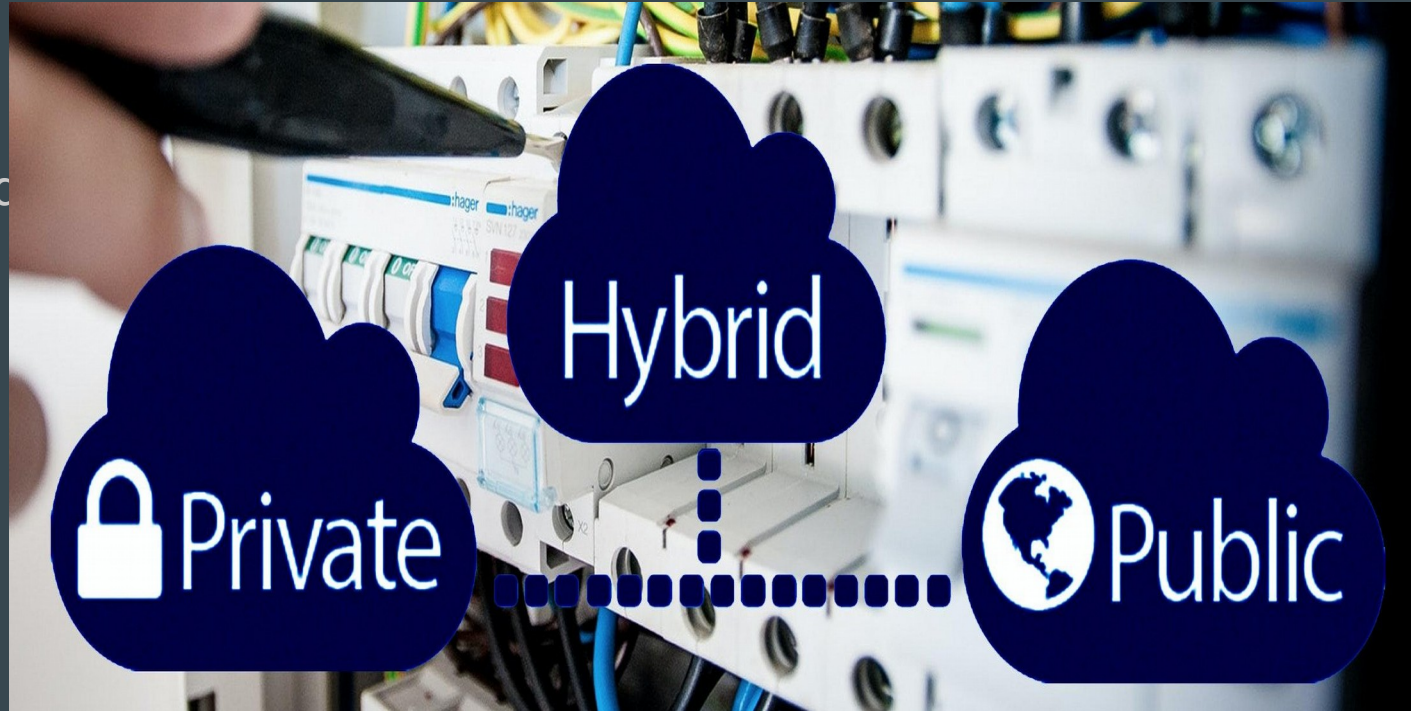
Deployment Model: -

Private cloud.

Community cloud

Public cloud.

Hybrid cloud.



Advantages of Cloud Computing

1. Usability: All cloud storage reviewed in this topic have desktop folders for Mac's PCs. This allows users to drag and drop files between the cloud storage and their local storage.
2. Bandwidth: You can avoid emailing files to individuals and instead send a web link to recipients through your email.
3. Accessibility: Stored files can be accessed from anywhere via an Internet connection.
4. Disaster Recovery: It is highly recommended that businesses have an emergency backup plan ready in the case of an emergency. Cloud storage can be used as a backup plan by businesses by providing a second copy of important files. These files are stored at a remote location and can be accessed through an internet connection.
5. Cost Savings: Businesses and organizations can often reduce annual operating

Disadvantages of Cloud Computing

1. Usability: Be careful when using drag/drop to move a document into the cloud storage folder. This will permanently move your document from its original folder to the cloud storage location.
2. Bandwidth: Several cloud storage services have a specific bandwidth allowance. If an organization surpasses the given allowance, the additional charges could be significant. However, some providers allow unlimited bandwidth. This is a factor that companies should consider when looking at a cloud storage provider.
3. Accessibility: If you have no internet connection, you have no access to your data.
4. Data Security: There are concerns about the safety and privacy of important data stored remotely. The possibility of private data commingling with other organizations makes some businesses uneasy.
5. Software: If to download the service on all devices.

A photograph of a group of people in a meeting room, all of whom are sleeping. In the foreground, a man with a grey beard and a woman with brown hair are resting their heads on the table. Other people in the background are also sleeping. The image is used as a meme to convey a message of indifference.

THANKS

FOR YOUR ATTENTION