

INFORMATION STORAGE ON CLOUD

① Concept of Cloud -

The term 'cloud' has been used historically as a metaphor for the Internet.

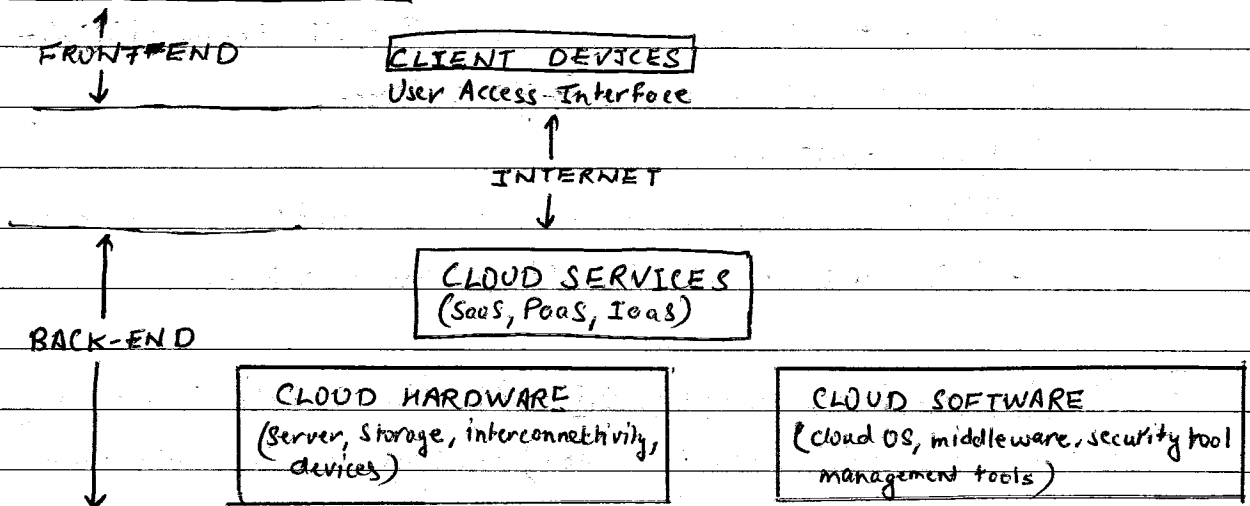
② Cloud computing -

It is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (eg- networks, servers, storage, applications and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

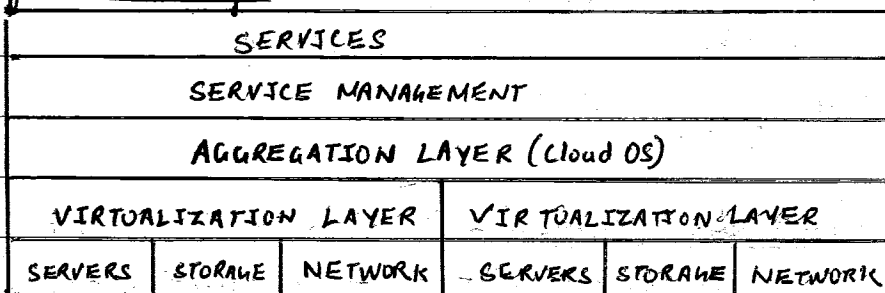
③ Storage on Cloud -

Cloud storage involves storing your data with a cloud service provider rather than on a local system. Data stored on the cloud is accessed via an Internet link.

④ Architectural Framework -



Cloud Infrastructure layers -





⑤ Cloud benefits -

- ① Reduced IT cost
- ② Support business agility
- ③ Flexible scaling
- ④ High availability
- ⑤ less energy consumption

⑥ Cloud computing Evolution - Refers Unit 1 of cloud computing that is Historical developments (Distributed system, Virtualization, Web 2.0, Service oriented computing, Utility oriented computing).

⑦ Applications & services on cloud -

Cloud services are -

- (1) In cloud execution
- (2) Accessed via Internet
- (3) Minimal / no IT skills to "implement"
- (4) Provisioning
- (5) Pricing
- (6) User Interface
- (7) System Interface
- (8) Shared resources

Cloud applications are -

(1) Enterprise solutions -

- Transactional data or high performance file sharing application Eg - Amazon E
- Cloud storage Infrastructure Eg - EMC Atmos

(2) End-user solutions -

- Rich Internet applications and online service providers Eg - social media sites.
- Online data backup. Eg - Mozy online backup.

⑧ Cloud service providers and models - Refers Unit 2 of cloud computing that is Cloud reference model (IaaS, PaaS, SaaS) and types of clouds (public, private, hybrid, commu

⑨ Essential characteristics of cloud computing - Refers Unit 3 of cloud computing that is Characteristics of cloud computing as per NIST (On demand self service, Broad ~~Access~~ Network Access, Resource Pooling, Rapid Elasticity, Measured Service)

⑩ Cloud security ~~and~~ ~~Integrity~~ - It refers to a broad set of policies, technology and controls deployed to protect data, applications and associated infrastructure of cloud computing -  
my companion



- (11) Cloud vocabulary -
- Cloudburst (Negative) - The failure of a cloud computing environment due to the inability to handle a spike in demand.
  - Cloudburst (Positive) - The dynamic deployment of a software application that runs on internal organizational compute resources to a public cloud to address a spike in demand.
  - Cloudstorming - The act of connecting multiple cloud computing environments.
  - Vertical Cloud - A cloud computing environment optimized for use in a particular vertical i.e. industry or application use case.
  - Internal Cloud - A cloud computing environment within the boundaries of an organization and typically available for exclusive use of by said organization.
  - Cloudware - A general term referring to a variety of software, typically at the infrastructure level, that enables building, deploying, running or managing applications in a cloud computing environment.
  - External Cloud - A cloud computing environment that is external to the boundaries of the organization to specific other organizations.
  - Cloud Enablers - A general term that refers to organizations (typically vendors) who are not cloud providers per se, but make available technology, such as cloudware, that enables cloud computing.
  - Cloud oriented architecture (COA) - An architecture for IT infrastructure & software applications that is optimized for use in cloud computing environments.
  - Cloud service architecture (CSA) - An architecture in which applications and application components act as services on the cloud, which serve other applications within the same cloud environment.
  - Virtual Private Cloud (VPC) - have security and ability to create a VPC across components ~~act as services on the cloud~~ that are both within the cloud & external to it.
  - Cloud Portability - The ability to move applications across cloud computing environments from different cloud providers, as well as
  - Cloud spanning - Running an application in a way that its components straddle multiple cloud environments.
  - Cloud housing - It is a phrase by ~~cloud~~ which cloud products and services and their



deployment and maintenance is outsourced to and provided by one or more cloud service providers.

(12) Cloud Integration - It is the process of configuring multiple application programs to share data in the cloud.

In a network that incorporates cloud integration, diverse applications communicate either directly or through third party software.