VINOD KUMAR VERMA, PGT(CS), KV OEF KANPUR &
SACHIN BHARDWAJ, PGT(CS), KV NO.1 TEZPUR

CLOUD COMPUTING & SERVICES

CLOUD STORAGE

- Here Cloud closely related to "Internet"
- Cloud storage is a system that allows you to store data on Internet, as you would save on computer.
- Google Drive, Drop Box or iCloud are the Cloud storage providers.
- It allows you to store data through internet on Cloud server.
- Once the data is uploaded on cloud, we can access it from multiple device, from anywhere using the Internet as medium

CLOUD COMPUTING

- **cloud computing** is a model for sharing resources and enabling on-demand access to things like data **storage,** software, and processing.
- Cloud technology enables the reusability of IT resources for storing large databases, developing and hosting complex applications, and expanding computational power and other services on demand. Eliminating or reducing investments on large-scale infrastructure and software, coupled with the pay-per-use model, significantly reduces IT costs.

Distinguishing factors between cloud storage and cloud computing

- Cloud computing requires higher processing power than cloud storage. Cloud storage, on the other hand, needs more storage space.
- Cloud computing is essentially targeted towards businesses. Cloud storage, on the other hand, is utilized both for professional and personal reasons.
- Cloud storage is simply a data storage and sharing medium, while cloud computing gives you the ability to remotely work on and transform data (for example, coding an application remotely).

Types of Cloud

- **PUBLIC CLOUD :** Public clouds are owned and operated by a third-party cloud service providers, which deliver their computing resources like servers and storage over the Internet. Microsoft Azure is an example of a public cloud. With a public cloud, all hardware, software and other supporting infrastructure is owned and managed by the cloud provider. You access these services and manage your account using a web browser.

Types of Cloud

- **PRIVATE CLOUD :** A private cloud refers to cloud computing resources used exclusively by a single business or organization. A private cloud can be physically located on the company's on-site datacenter. Some companies also pay third-party service providers to host their private cloud. A private cloud is one in which the services and infrastructure are maintained on a private network.

Types of Cloud

- **HYBRID CLOUD :** Hybrid clouds combine public and private clouds, bound together by technology that allows data and applications to be shared between them. By allowing data and applications to move between private and public clouds, a hybrid cloud gives your business greater flexibility, more deployment options and helps optimize your existing infrastructure, security and compliance.

Types of Cloud Services

- Most cloud computing services fall into four broad categories:
  - IaaS : Infrastructure as a service.
  - Paas : Platform as a service
  - SaaS : Software as a service

IaaS

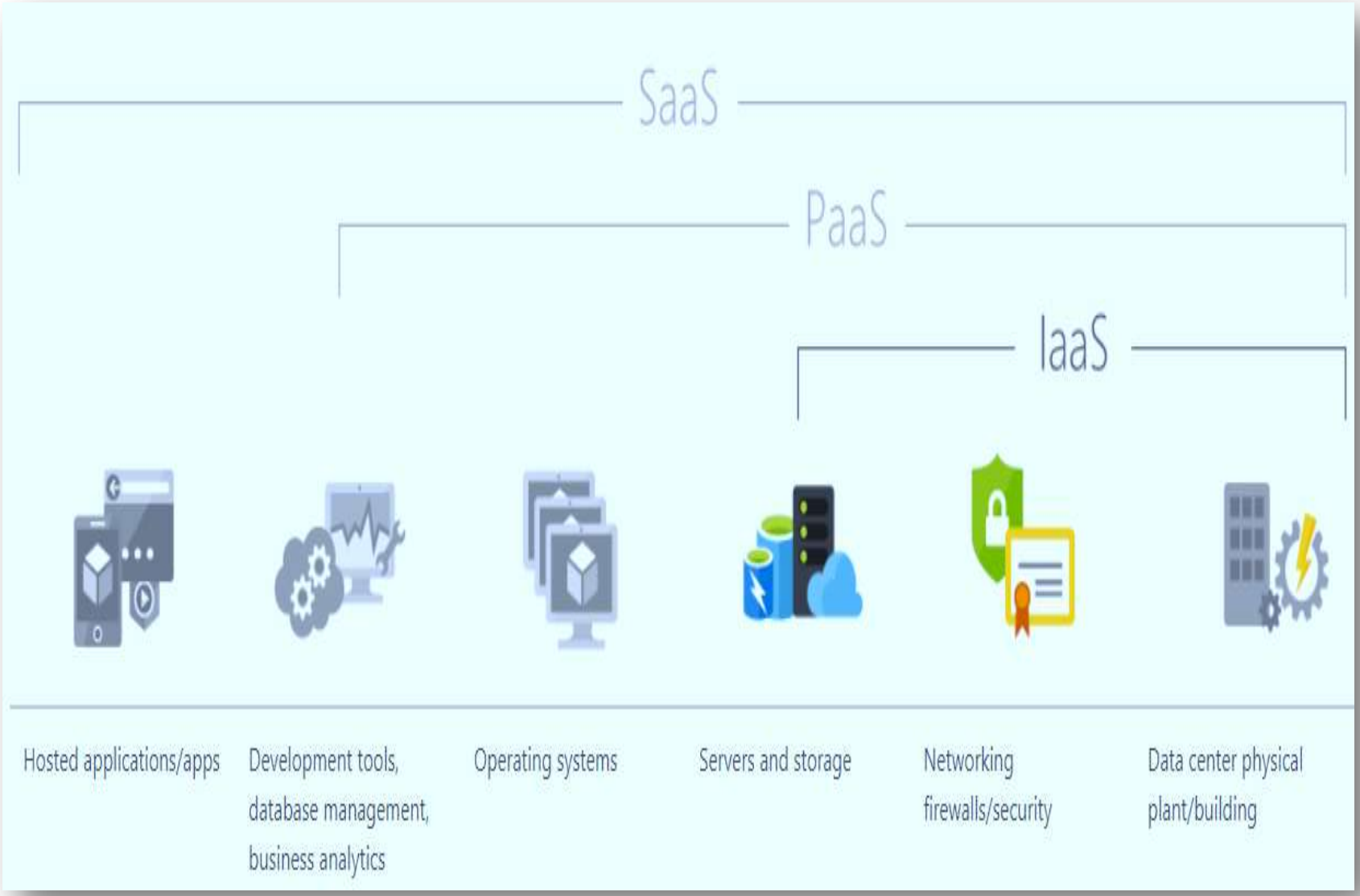
- The most basic category of cloud computing services. With IaaS, you rent IT infrastructure—servers and virtual machines (VMs), storage, networks, operating systems—from a cloud provider on a pay-as-you-go basis.

PaaS

- Platform as a service refers to cloud computing services that supply an on-demand environment for developing, testing, delivering and managing software applications. PaaS is designed to make it easier for developers to quickly create web or mobile apps, without worrying about setting up or managing the underlying infrastructure of servers, storage, network and databases needed for development.

SaaS

- Software as a service is a method for delivering software applications over the Internet, on demand and typically on a subscription basis. With SaaS, cloud providers host and manage the software application and underlying infrastructure and handle any maintenance, like software upgrades and security patching. Users connect to the application over the Internet, usually with a web browser on their phone, tablet or PC.


SaaS
PaaS
IaaS
Hosted applications/apps
Development tools, database management, business analytics
Operating systems
Servers and storage
Networking firewalls/security
Data center physical plant/building