

# CLOUD COMPUTING

## What is Cloud Computing?

- Cloud Computing is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand, like the electricity grid
- It offers the ability to access softwares or information that can be delivered on-demand, over the internet, without the need to store it locally
- The cloud is a large group of interconnected computers.
- It is a document-centric concept not PC centric.

## Why cloud computing?

The Traditional Model :

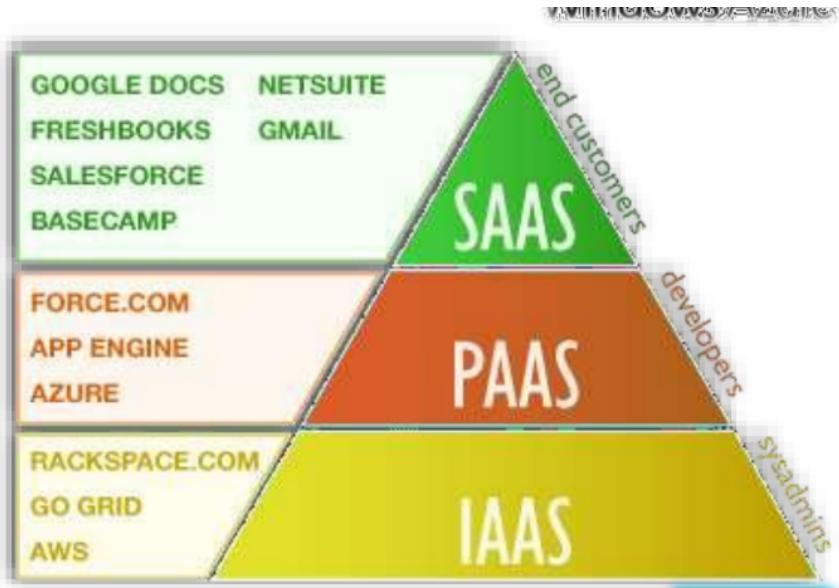
- Building and running applications complex, expensive, and risky.
- Electricity needed to power the servers as well as the systems to keep them cool.

New Model (Cloud Computing):

- Provides all the infrastructure needed to run applications over the Internet.

# Cloud Services

- *Software as a Service (SaaS)*
- *Platform as a Service (PaaS)*
- *Infrastructure as a Service (IaaS)*



SaaS (Software as a Service)	PaaS (Platform as a Service)	IaaS (Infrastructure as a Service)
Applications, typically available via the browser: <ul style="list-style-type: none"><li>• Google Apps</li><li>• Salesforce.com</li></ul>	Hosted application environment for building and deploying cloud applications: <ul style="list-style-type: none"><li>• Salesforce.com</li><li>• Amazon E2C</li><li>• Microsoft Azure</li></ul>	Utility computing data center providing on demand server resources: <ul style="list-style-type: none"><li>• HP Adaptive Infrastructure as a Service</li><li>• Rackspace</li><li>• Amazon E2C &amp; S3</li></ul>

*SaaS is the strongest Cloud trend and Service*

## Application of Cloud Computing

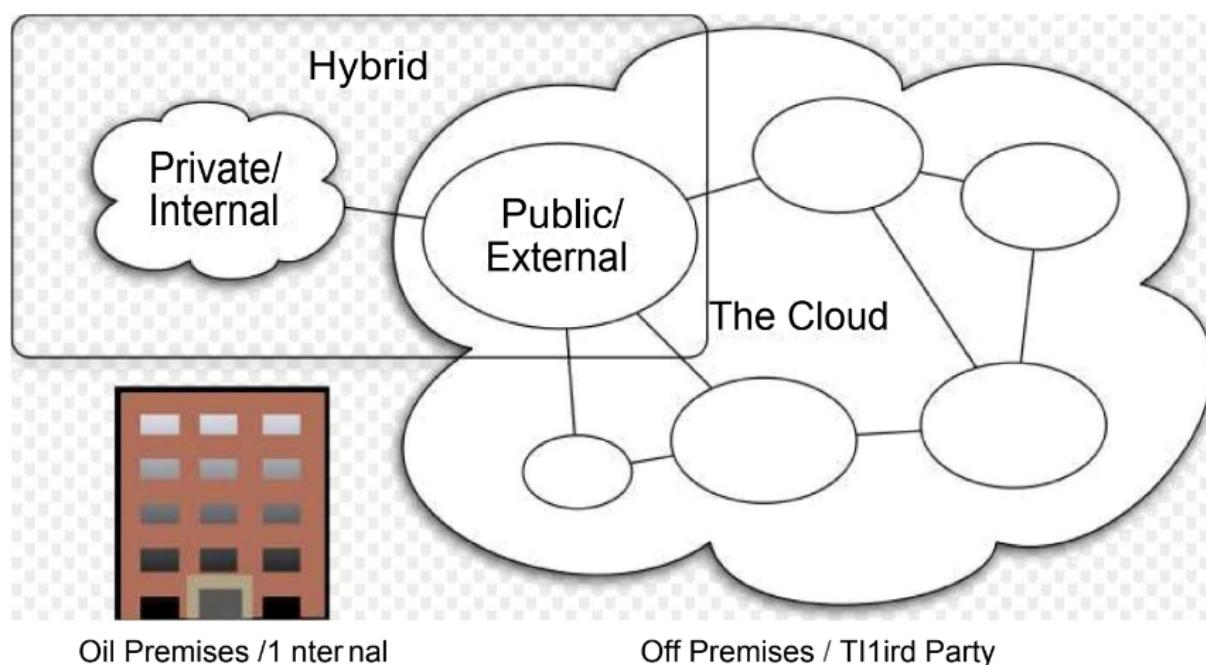
- Practically limitless and easily accessible
- It saves the cost of infrastructure and hardware maintainance

- It provides the access to commercially available application.

## Benefits

- Reduced cost
- Increased storage
- highly automated
- flexibility
- more mobility
- minimized infrastructure risk

## Architecture



- **Public:** The services are delivered to the client via Internet from a third party service provider  
Example: Amazon
- **Private:** The services are managed and provided within the organization. There are less restriction on network bandwidth, fewer security exposures and other legal requirements compared to public

cloud.

Example: HP data centers

- Hybrid: There is a combination of services provided from public and private clouds.