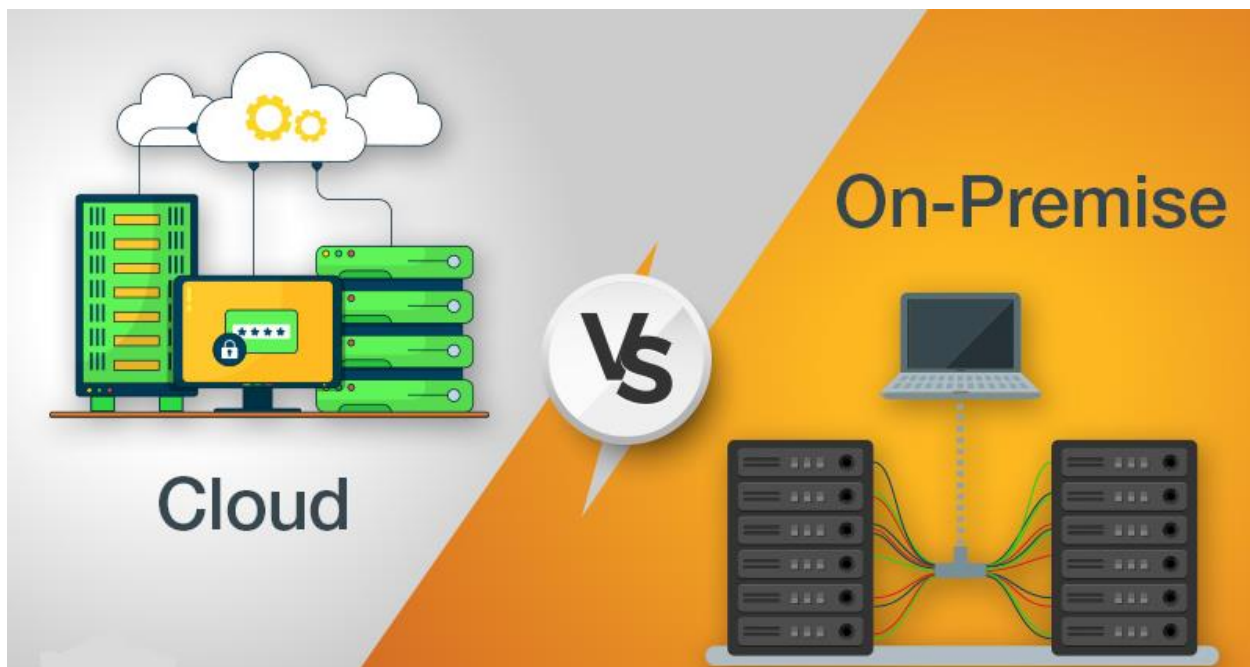


## On-Premises:

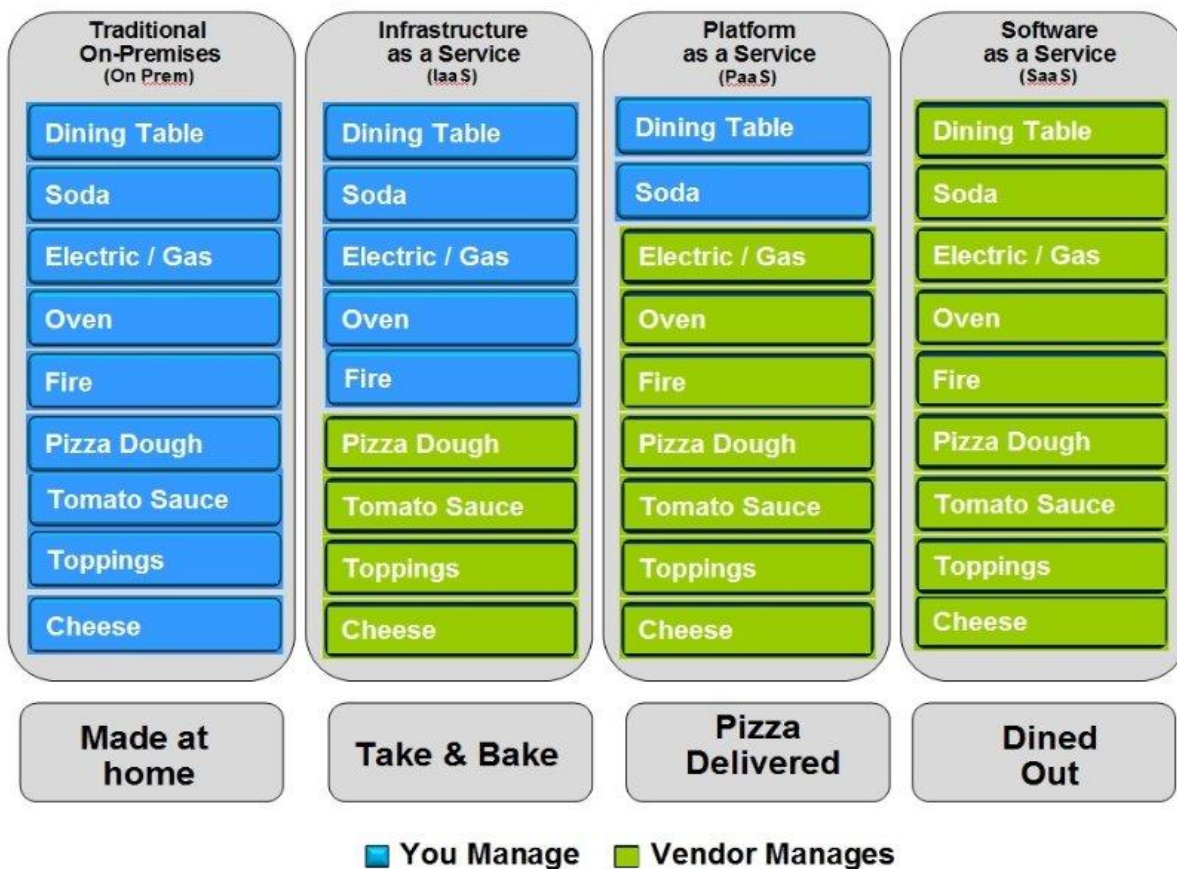
- o On-premises solutions are physically located at an organization's office site such as DC.
- o On-premises solutions are physically hosting location of their choice such is Data Center.
- o On-Premises means any system that is literally within the confines of the building (DC).
- o On-premises is software & technology that is located within the physical company's DC.
- o On-Premises are traditional Data Centers that house individual machines do not cloud.
- o On-premise means that a company keeps all of this IT infrastructure onsite inside DC.
- o By installing & running software on hardware located within the premises of company.
- o The IT staff has physical access to the data and can directly control the configuration.
- o The IT staff has to management and security of the computing infrastructure and data.
- o Uses own physical servers and IT infrastructure to install and host the solution locally.
- o Problems related to On-Premises can be solved by moving to a cloud-based solution.
- o Downside of on-premise solutions is costs associated with managing and maintaining.
- o On-Premise setup requires in-house server hardware, software licenses, integration etc.
- o On-Premise setup requires IT employees on hand to support & manage potential issues.
- o On-Premises, resources are deployed in-house and within an enterprise's IT infrastructure.
- o An enterprise is responsible for maintaining the solution and all its related processes etc.



## Cloud:

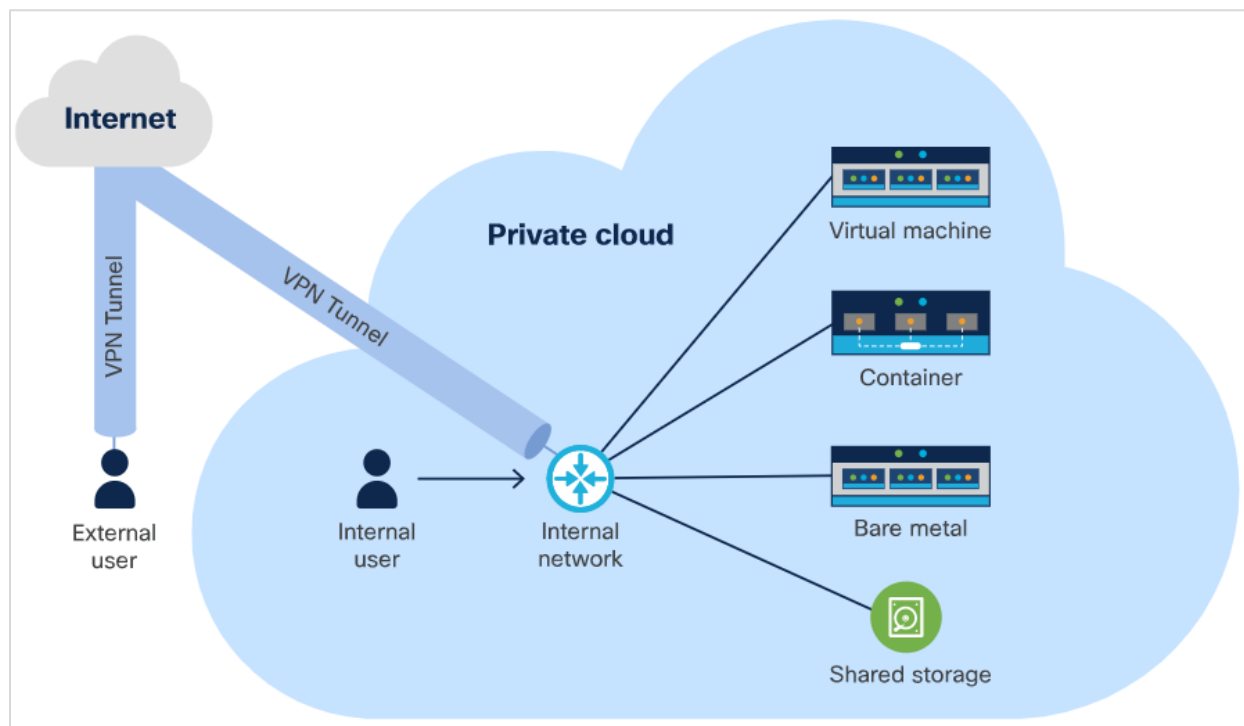
- o Cloud provides self-service provisioning for compute resources, networking & storage.
- o A cloud-based server utilizes virtual technology to host a company's applications offsite.
- o Cloud is hosted on servers which are maintained by a vendor the hosting company.
- o Cloud is such as Microsoft Azure and accessed through an Internet connected device.
- o Where third parties are responsible for managing & securing the infrastructure servers.
- o The cloud Computing is the alternatives to On-Premises software and technologies.
- o Cloud is frequently considered for their potential cost savings and reduced expenses.
- o Cloud also considered to reduce the power consumption, maintenance and security.
- o Security is one of the biggest reasons organizations not to use cloud network solutions.
- o Cloud Benefits Scalability, cost savings, Disaster Recovery, accessibility. Resilience etc.
- o Cloud computing has four well-known flavors Public, Private, Hybrid & Bare Metal Cloud.

## Pizza as a Service



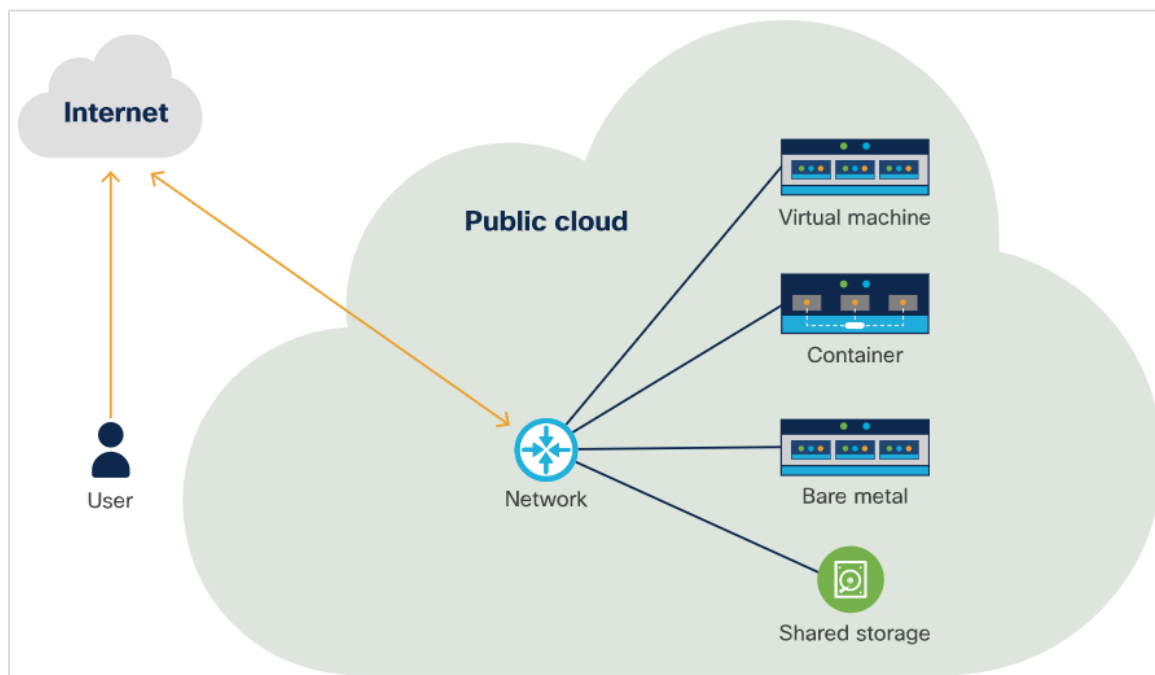
## Private Cloud:

- o In a private cloud infrastructure, the organization controls all of the resources its own.
- o In most cases, the private cloud is located in a Data Center (DC) and all its resources etc.
- o In a Private Cloud resources that run on the hardware belong to the owner organization.
- o The advantage of a private cloud is that one has complete control over where it is located.
- o In a Private Cloud an operations team is required to manage the cloud and keep it running.
- o Whilst data & hardware are kept in the cloud, it is completely private to your organization.
- o The Private clouds usually reside behind the firewalls & are utilized by a single organization.
- o Authorized users can access, utilize & store data in private cloud from anywhere anytime.
- o The Private cloud solutions offer both security & control, but these benefits come at a cost.
- o The company that owns the Private Cloud is responsible for both software & infrastructure.
- o Private cloud solution will also not be affected by public cloud provider's system downtime.
- o Additional control offered by private cloud make it easier to restrict access to valuable asset
- o Advantages are highly private and secured: Private cloud resource sharing is highly secured.
- o Other Advantages Private clouds provide more control over its resources than public cloud.
- o Disadvantage is private type of clouds is scaled within internal limited hosted resources.
- o Costly, as it provides secured and more features, so it's more expensive than a public cloud.
- o Restriction It can be accessed locally within an organization & is difficult to expose globally.



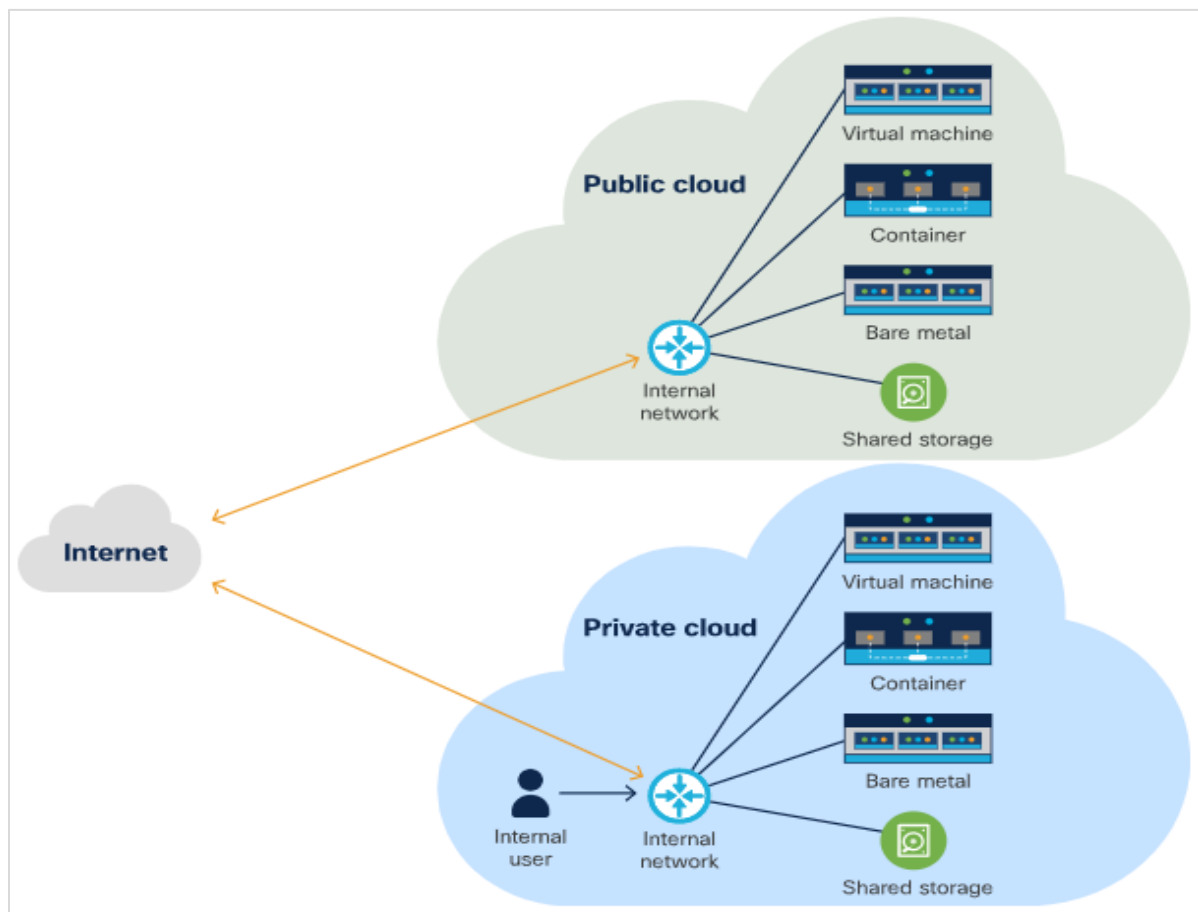
## Public Cloud:

- o A Public cloud customer may share resources with other organizations or companies.
- o Alternatively, public cloud providers may provide customers with dedicated infrastructure.
- o With a public cloud, the organization, company or customer does not control resources.
- o A public cloud is helpful in scaling up virtually as long as load requires & then scale down.
- o Some of public cloud examples include those offered by Amazon, Microsoft, or Google etc.
- o These companies provide both services & infrastructure, which are shared by all customers.
- o Public clouds have massive amounts of available space which translates into easy scalability.
- o A public cloud is often recommended for software development and collaborative projects.
- o The great advantage of a public cloud is its versatility and the “pay as you go” structure.
- o Downside infrastructure and OS of public cloud remain under full control of cloud provider.
- o Risk of an unpatched security vulnerability in cloud architecture exposing customers to risk.
- o The advantages are Flexible, Reliable, High Scalable, Low cost and Place independence etc.
- o Disadvantages includes of Public Cloud are Less Secured and Poor Customizable & changes.



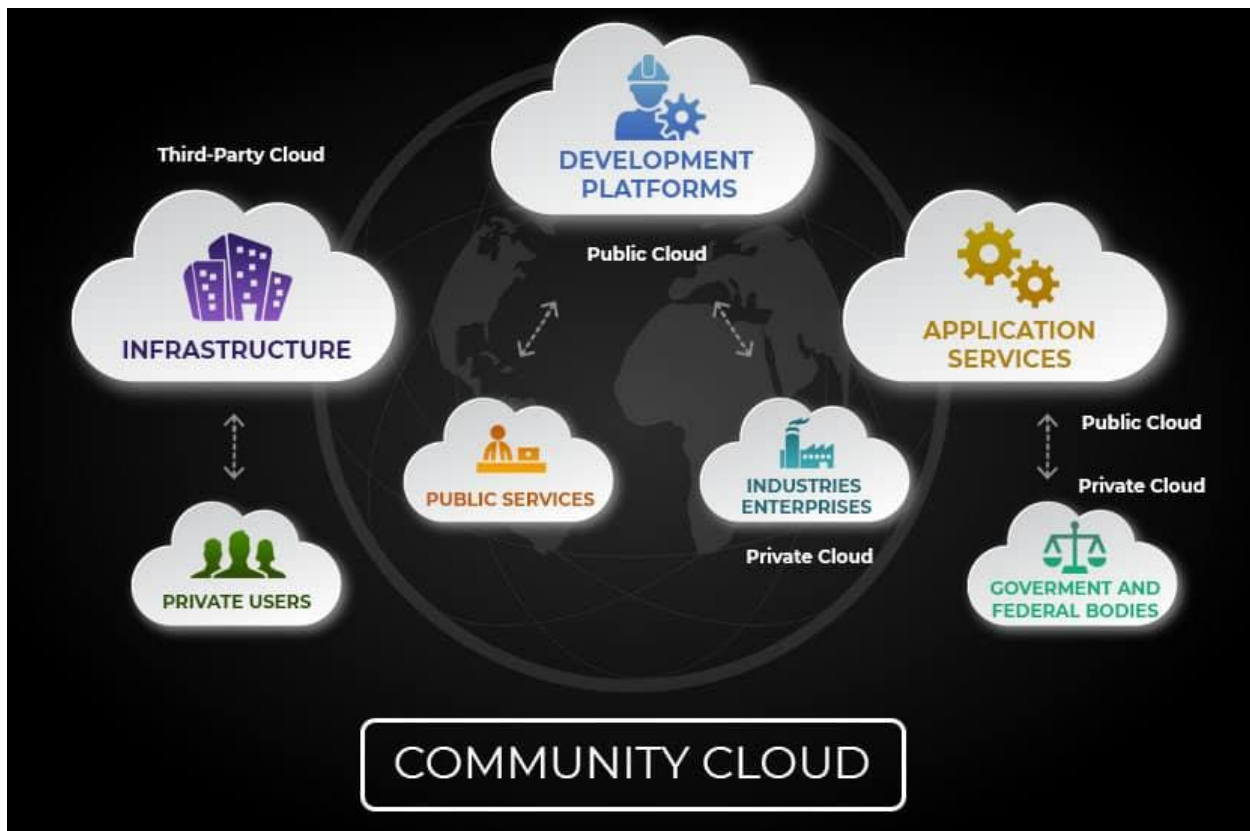
## Hybrid Cloud:

- o Hybrid cloud is combination of two different types of clouds public with private clouds.
- o Hybrid cloud is used to bridge a private cloud and a public cloud within a single application.
- o Hybrid cloud combines public & private cloud to provide additional resources and security.
- o Hybrid cloud is distinguished by the use of more than one cloud within a single application.
- o They are designed to allow two platforms to interact seamlessly, with data and applications.
- o The Hybrid cloud model is its ability to provide a scalable computing power of public cloud.
- o The Hybrid cloud model is its ability provide with the security and control of a private cloud.
- o Advantages of Hybrid Cloud infrastructure is Flexible, Secure, Cost Effective & Rich Scalable.
- o Disadvantages are complex networking problem and Organization's security Compliance.



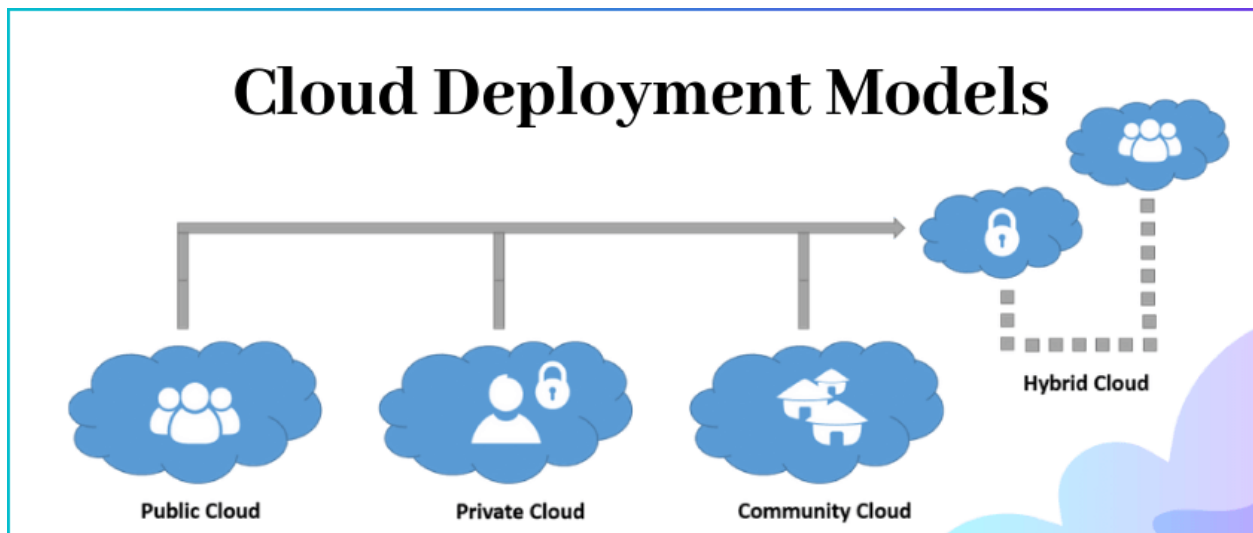
## Community Cloud:

- o The Community Cloud concept is new & falls somewhere between Public & Private Cloud.
- o The hybrid or combination of Public Cloud and Private Clouds is called Community Clouds.
- o The Community Cloud is a hybrid form of private cloud & They are multi-tenant platforms.
- o The Community Cloud that enable different organizations to work on a shared platform.
- o The purpose of this concept is to allow multiple customers to work on joint projects etc.
- o Community Cloud is a distributed infrastructure that solves the specific issues of business.
- o Community cloud model allows Cloud Service Provider to provide cloud tool & applications.
- o Communities involved in these projects, such as tenders, business organizations & research.
- o Community Cloud computing facilitates users to identify & analyze business demand better.
- o Community Cloud may be hosted in DC, owned by one of tenants, or by a third-party cloud.
- o It provides benefits to organizations in the community, individually as well as collectively.
- o Cloud infrastructure is shared between similar customer organizations with mutual benefits.
- o The services etc provided by are typically focused on the shared tasks of the community.
- o Advantages of Community Cloud are cost reduction, improved Security privacy & reliability.
- o Other advantages of Community Cloud are like ease of data sharing and collaboration etc.
- o Disadvantages of Community Cloud is high cost if compared to a public deployment model.
- o More disadvantages of Community Cloud are Sharing of fixed storage & bandwidth capacity



## Difference between Different Types of Clouds:

Feature	Public	Private	Hybrid	Community
Host	Service provider	Enterprise	Enterprise	Community (Third party)
Suitable for	Large Enterprise	Large Enterprise	Small & mid-size	Financial, health and legal companies
Access	Internet	Intranet, VPN	Intranet, VPN	Intranet, VPN
Security	Low	Most secured	Moderate	Secured
Cost	Cheapest	High Cost	Cost effective	Cost effective
Owner	Service provider	Enterprise	Enterprise	Community
Reliability	Moderate	Very High	Medium to High	Very High
Users	Organizations, public like individuals	Business organizations	Business organizations	Community members
Scalability	Very High	Limited	Very High	Limited



Cloud Types	Description
Public Cloud	Public Cloud is open for public use.
Private Cloud	Private Cloud dedicated area in a cloud provider.
Community Cloud	Community Cloud shared between several organizations.
Hybrid Cloud	Hybrid Cloud composed of two or more clouds.