Unit-1

What is cloud computing?

❶Cloud computing refers to manipulating configuring accessing both hardware and software resources from a remote location.

❷It offers online data storage infrastructure and application.

❸Cloud computing facilitates platform independent.
❹We need not download any additional software to run the application on your browser.

Explain about needs of cloud computing?

❶The cloud computing revaluation is hiding full gear. It is feared by CIO's small to medium size companies. Cloud strategies are being implemented at unbelievable rates.

❷Cost saving is not only the reason businesses or emphasizing the cloud.

Data and application resources can be profession in real time.

Availability:-

Ensure that your resource remind continuously available and secure.

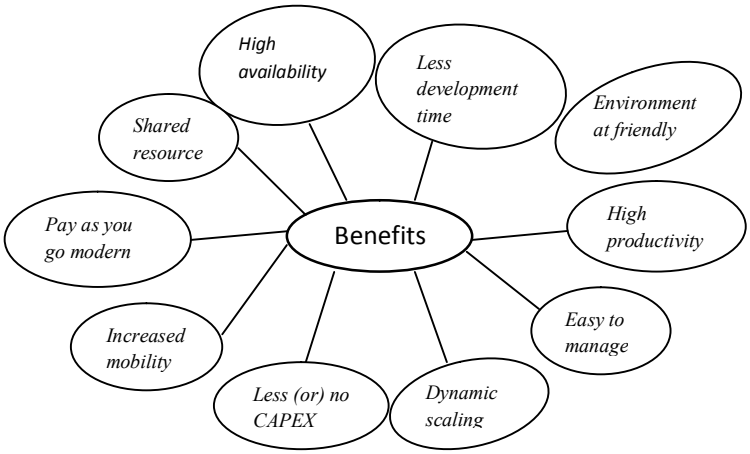
Less maintenance:-

Hardware applications and VAN with all manage by these provide.

Expert service:-

Service are continuously monitor and maintain by these provide.

BENEFITS OF CLOUD COMPUTING

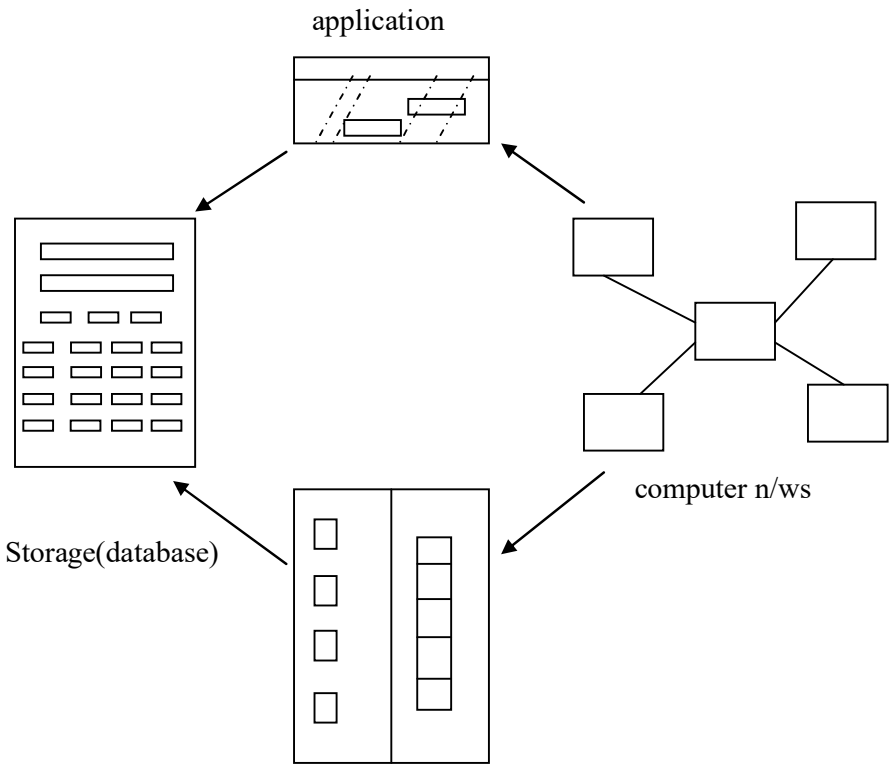


Evaluation and history of cloud computing?

- ❖ Cloud computing has as its antecedes both client and server computing, peer to peer, distributed computing.
- ❖ It's all a matter of how centralized storage facilities. Collaboration and how multiple computers work together to increase computing power.

Client/ server computing:-In the earlier days of computing that is from 1980 are so everything operated on the client/server model. All the software applications, all the data and all the control resided on huge mainframe computers are otherwise known as servers.

- ✓ If a user wanted to access specific data are run a program. They had to connect to the mainframe which gained appropriate access and they do their business while essentially renting the program are data from the server.
- ✓ Users connected to the server via a computer terminal some time called a workstation or client. This computer was sometimes called as a dump terminal because it did not have a lot of memory storage space or processing power.
- ✓ The factors when multiple people are sharing a simple computer event if the computer is a huge mainframe they have to wait for their term.
- ✓ So the client/server model while providing similar centralized storage differ from cloud computing in that it did not have a user centric focus with client/server computing all the control rested with the mainframe and with the guardians of the single computer. It was not a enabling environment.



Grid computing	Utility computing
• Solving large problems with parallel computing • Made mainstream by globes alliance	• Offering computing resources as a metered service • Introduction in late 1990s

Software as a service	Cloud computing
• Network-based subscriptions to applications • Gained momentous in 2001	• Next generation-internet computing • Next generation data centers

Peer to peer computing (sharing resources):-

- The server part is the system also created a huge bottle like. All communication between computers had to go through the server first. However, in efficient that might be.
- The obvious need to connect one computer to another without first hiding the server let to the development of peer to peer.
- Peer to peer computing defines the network architecture. In which each computer has equivalent capabilities and responsibilities.
- Peer to peer was an equalizing concept in the peer to peer environment every computer is a client and server. There are no masters and sleeves.
- Peer to peer was also a decentralizing concept. In which control is decentralizing with all computers functioning as equals. Content is also dispose among the various peer computers.
- Perhaps the most notable implementation of peer to peer computing is the internet. The various ARPA net sides and there were not many of them where connected together not as clients and servers but as sequence.

Distributed computing (providing more computer power:-

- One of the important subs tics of the peer to peer model is that of distributed computing. Where ideal PC's are across the network or across the internet were taped to provide computing for large processor intensive projects. It is a simple concept is about cycle sharing between multiple computers.
- When a computer is enlisted for distributed computing project software is installed a machine to run various processing during dose period when the PC's typically.

- Distributer computing dates back to 1970s. When multiple computers when network together.
- A more practical application is distributed computing operated in 1988. When researches at the DEC (digital equipment corporation)system research centre development software that distributed the work to factor large number of on workstation with in their laboratory.
- By 1990 a group of about 100 users utilizing the software had faceted a 100 digit number.
- By 1995 this same effect had been expanded to the web to factor a 130 digit number.

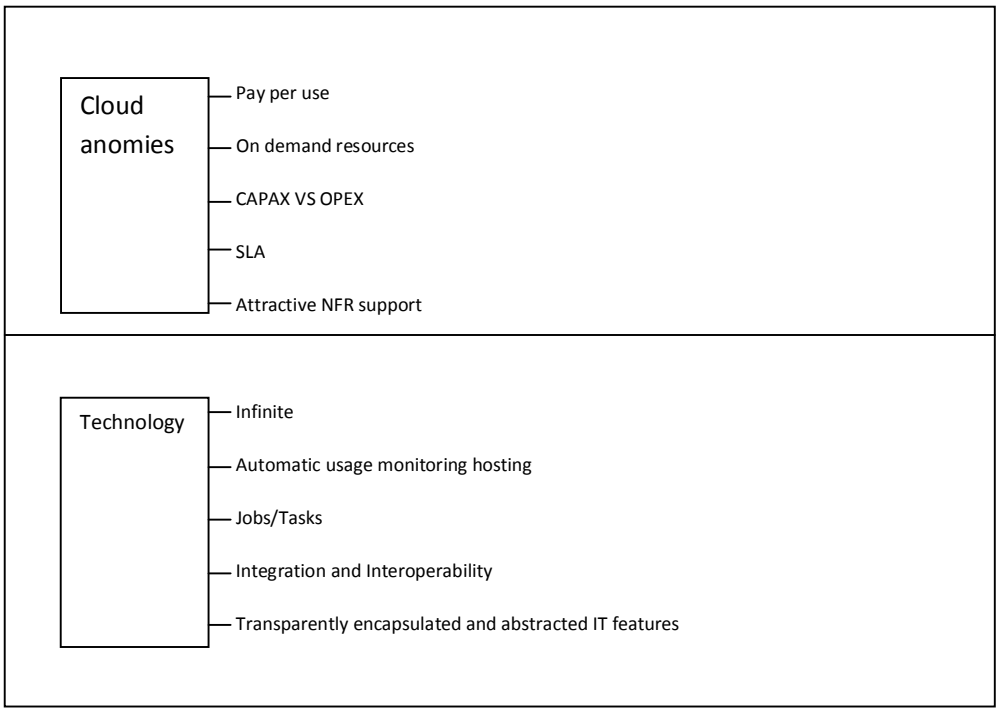
Collaborating computing (working as a group):-

- The collaborating on any project users must be able to top one another. In today's environment is means instant messaging for text based communication with optional audio, telephoning, and video capabilities for voice and picture communication.
- Most collaboration systems offer the complete range of audio video options for full featured multiple user video conferencing.

Cloud computing (the next step in collaboration):-

- ✓ The concept of cloud based document and services took wing with the development of large server forms such as dose run by Google and other search companies. Google already had a collection of servers that it used to power its massive search engine.
- ✓ On the infrastructure side IBM, sun system and other big iron provides are offering hardware necessary to built cloud networks.
- ✓ On the software side dozens of companies are developing cloud based applications and storage services.
- ✓ Today people are using cloud services and storage to create share fine and organized information, of all different types.
- ✓ Tomorrow this functionality will be available not only to computer users but to users are any device to that connect to the internet, mobile phones, portable music player, even auto mobile, and home television sets.

Migrating in to the cloud:



Migrating is an application to the cloud computing it is not an easy task. It is important strictly adhere to the 7 step model to ensure that the process is robust and error free.

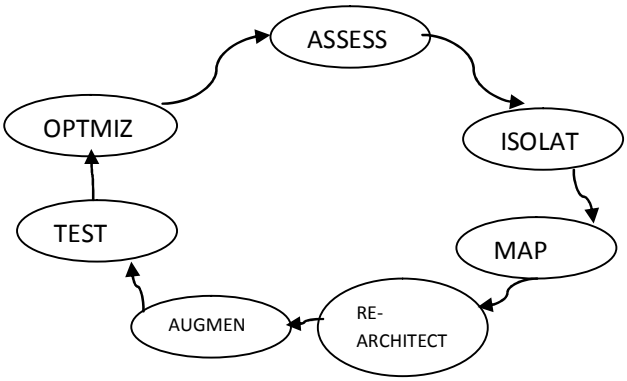
Technology of as the flowing:-

1. Infinites:-
   It denotes computer, storage, and bandwidth.
2. Automatic usage:-
   Which monitors the usage and read direct them.
3. Job tasks:-
   Virtualized and transparently movable.
4. Integration and interoperability:-
   It supports for hybrid operations.
5. Transparency:-
   It denotes are IT features.

7 steps model of migration in to the cloud and the Infosys research:-

By the diagram we denote the process as follows:-

- Conduct cloud migration assessment.
- Isolates the dependencies.



- Map the messaging and the environment.
- Re-architect and implement the lost functionality.
- Leverage cloud functionalities and features.
- Test the migration.
- Iterate and optimize.

Assess:-

1. Migration starts with an assessment of the issues relating to migration at the application, code, design and architecture levels.
2. More over assessments are also required for tools being used functionality, test cases, and configuration of the application.
3. The proof of concepts for migration and the corresponding prizing details will help to assess these issues properly.

Isolate:-

1. The second step is the isolation of all the environmental and systematic dependencies of the enterprise application within the captive data centre.
2. These include library, application, and architectural dependencies.
3. This step results in a better understanding if the complexity of the migration.

Map:-

A mapping construct is generated to separate the components that should reside in the captive data centre from the ones that will go into the cloud.

Re-architect:-

1. It is likely that a substantial part of the application has to be re-architected and implemented in the cloud. This can affect the functionalities of the application and some of these might be lost.

2. It is possible to approximate lost functionality using cloud run time support API.

Argument:-

The features of cloud computing service are used to augment the application.

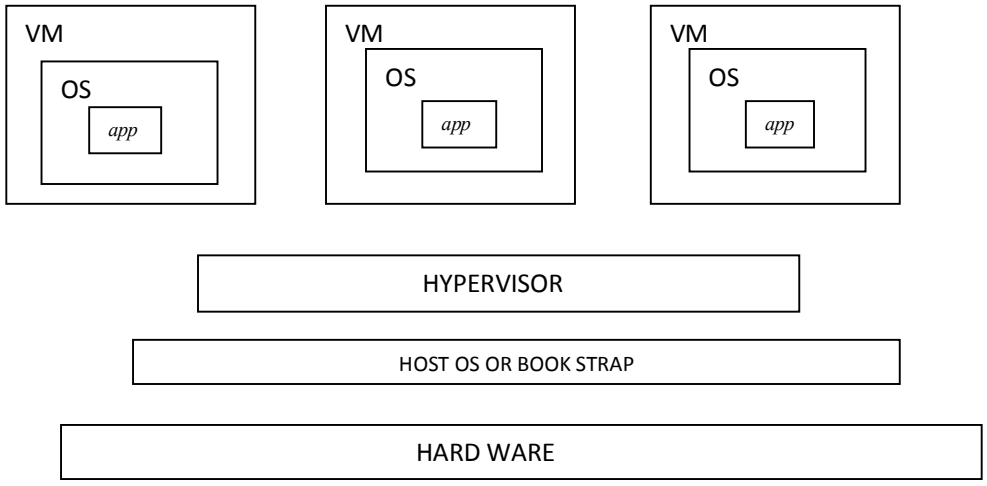
Test:-

1. Once the augmentation is done, the application needs to be validated and tested. This is to be done using a test suit for the applications on the cloud.
2. New test cases due to augmentation and proof of concepts are also tested at this stage.

Optimize:-

1. The test results from the last step can be mixed and so require iteration and optimization. It may take several optimizing iterations for the migration to be successful.
2. It is best to iterate through this seven step model as this will ensure the migration to be robust and comprehensive.

Virtualization:-



1. Virtualization can be applied very broadly to just about everything you can imagine including memory networks, storage, hardware, operating system, and applications.
2. Virtualization has 3 characteristics that make it ideal for cloud computing.

I. Partitioning:-

In virtualization we can use partitioning to support many applications and operating systems in physical systems.

II. Isolation:-

- Because each virtual machine is isolation each machine is protected from crashes and viruses in the other machines.
- What makes virtualization so important for the cloud is that it decoupled the software from the hardware.

III. Encapsulation:-

It can protect each application so that it does not interfere with other applications. Using encapsulation a virtual machine can be represented and even stored as a single file making it easy to identify and present to other applications.

Some examples:-

- Virtual memory:-

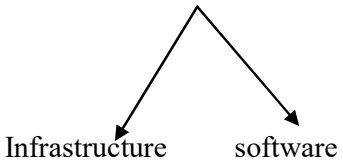
  Disks have a lot more space VAN memory. PICs can use virtual memory to barrow extra memory from the hard disk. Although, virtual disks are slower than real memory. It managed drive the substation surprisingly well.

- Software:-
  - There is virtualization software available that can emulate an entire computer. Which means one computer can perform as though it were actually 20 computers.
  - Using this kind of software you might be able to moves from a data's centre with 1000 of servers to one that support as few as the couple of 100.

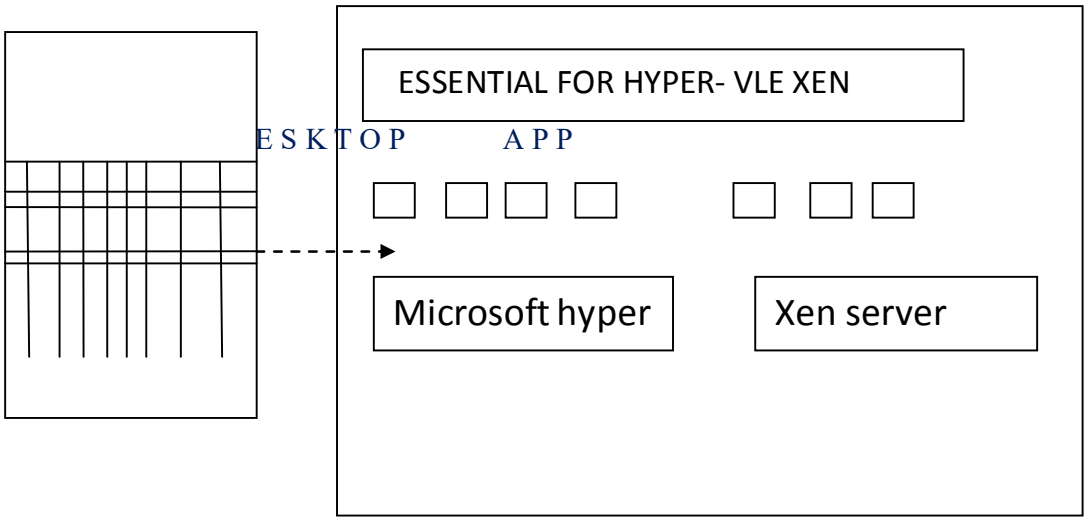
Types of virtualization:-

There are 2 types of virtualization available.

1. Desktop virtualization
2. Server virtualization



Desktop virtualization:-



- The coupling virtualization between PC environment including application and files etc and physical machine.
- Virtualized desktop environment it stored on a remote server and when user has compactable device with sufficient display ability.

  Example:-PC, smart phone.
  - All the programs and data will eventually store in a remote server.

Software virtualization:-

It has 2 categories

- ❖ High level language virtualization
- ❖ Application virtualization

➢ High level language virtualization:-

It is used solve the migration problem of executable programs between different architectures, programs. Which are written in high level language will be compiled in to standard intermediate and these instructions will be executed during interpretation or compile environment such as JVM.

➢ Application virtualization:-

- Decouple applications from OS and provide a virtual running environment for applications including applications executable files and required run time environment.

- Application virtualization server can push user required program components to the client virtual running environment. Such as VMware and thin application.

Infrastructure virtualization:-

It has 2 categories

1. Network virtualization
2. Storage virtualization

1. Network virtualization:-

Integrate network hardware resources with software resources to provide users with virtualization technology of virtual network connection. It can be dividing in to V-LAN and VPN.

2. Storage virtualization:-

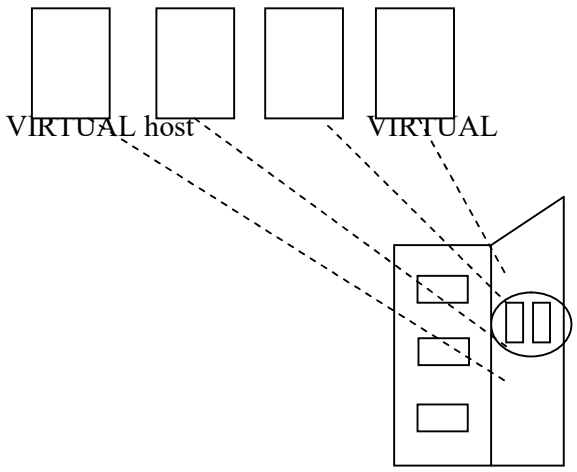
It can provide an abstract logical view of physical storage device. So the user can access the integrated storage resources through UNI file Logical interface of disk view.

It can be divided in to storage device base storage virtualization.

Example:-RAID and network based storage virtualization.

Example:-NAS and SAN.

Server virtualization:-



- It is used for convenient to manage.
- To improve the utilization rate.

- To reduce cost.
- To focus on skills.
- To concentrate on whole skill.
- To improve the response speed of business change
- To simplify the environment.
- For higher qualities of service.

VM:-

A Complete Computer System with full functions of hardware system through software simulation and runs in an absolutely isolated environment.

VM-WARE:-

- It offers VM-ware server a free entry level hosted virtualization product for Linux and windows servers.
- Virtualization and VM-ware has become main stream in the post year and many customers have display thousands of VM-ware server environments across their enterprise.
- VM-ware server makes it easy and compiling for companies new to virtualization to take the first step to word enterprise wide virtual infrastructure.

Features of VM-ware:-

VM-ware support the successor to VM-ware GSX server enable users to quickly profession new server capacity by partitioning a physical server in to multiple virtual machines bringing the powerful benefits of virtualization to every server.

Infrastructure:-

- VM-ware is the biggest name in virtual machine and virtualization. They offer VM-ware infrastructure which includes the latest versions of VM-ware.ESX 3.5 server which includes the latest versions of virtual server is 2.5.
- It allows VM-ware customer to stream line the management if IT environment through greater level of automation increase level overall available and boost performance of missile critical workloads. The above figure shows each virtualized server perceives the system resources and unique to them and not share with others.
- VM-ware infrastructure is VM-ware's third generation production- ready virtualization suit.

- The new features in VM-ware infrastructure are targeted at a broad range of customers and IT environments.
- The VM-ware update manager addresses a process each virtual infrastructure administrator dreads facing tracking path levels and applying current security patches and work patches their environment.
- It allows for this through and automated update and remediation process with in the entire infrastructure environment.

Availability and resilience:-

1. VM-ware storage demotion:-

*VM-ware storage demotion enables live migration of virtual machine. Disk from one data storage system to another with no disruption or downtime.

* Storage demotion expense demotion to storage resources of virtual machine namely virtual disks.

2. VM-ware update manager:-

*It automates of patch and update management for VM-ware ESX server host and virtual machines.

*It addresses one of the most significant paint for every IT department integration.

*VM-ware DRS enables 0's downtime. VM-ware ESX server host patching capabilities.

VM-ware distributed power management:-

*It is an experimental feature that reduces power consumption in the data centre through intelligent workgroup balancing.

VM-ware guided consolidation:-

*It is the feature of VM-ware virtual centre enables companies to get started with server consolidation in a step by step tutorial fashion.

Product:-

There are several editions:-

1. VM-ware ESX3I:-

*It is provide single server partitioning is deliver embedded as VM-ware is system or as the standalone purchase for hard drive insulation.

2. VM-ware infrastructure 3 foundation:-

i. With includes VM-ware ESX server 3I, VM-ware consolidate backup and the new VM-ware update manager.

ii. It has no restrictions on shared storage connectivity memory utilization or number of CPU's of the physical server.

3. VM-ware infrastructure 3 standard:-

* It is design to bring higher levels of resiliency to IT environments at greater value. It includes VM-ware HA which provides automated restart of virtual machines affected by hardware.

4. VM-ware infrastructure 3 enterprise:-

*It contains the entire array of virtual infrastructure capabilities for resources management workload mobility and high availability.

5. VM-ware v-motion storage v-motion:-

*It includes VM-ware DRS with DPM. Which are available for standalone purchase with VM-ware infrastructure 3 foundations and standard?

LIMITATIONS:-

For web hosting cloud computing is to that they is a term come across to many benefits of cloud computing. There are some limitations and weakness of cloud computing. They are:-

(i) Cascading effect:-If there is a problem in data centre all virtual machine are affected. There might or might not be a backup of the data in and an enterprise relies on the cloud for its data management needs.

(ii) Network connections: -1. The concept assumes that the client has reliable network connections. There are problem are network connectivity accessing the cloud also becomes a problem.

2. Performance of the cloud applications also depend. On the performance of network a client side.

(iii) Control of data security:-1.In a public cloud the client does not have the control over security of their own data.

2. The client's data can be susceptivle to hacking or phishing at haps.

IV) Additional cost:-

1. Cloud computing offers cost benefits. It has some hidden or additional cost as well.
2. Client or charge extractor data transfer for other services.

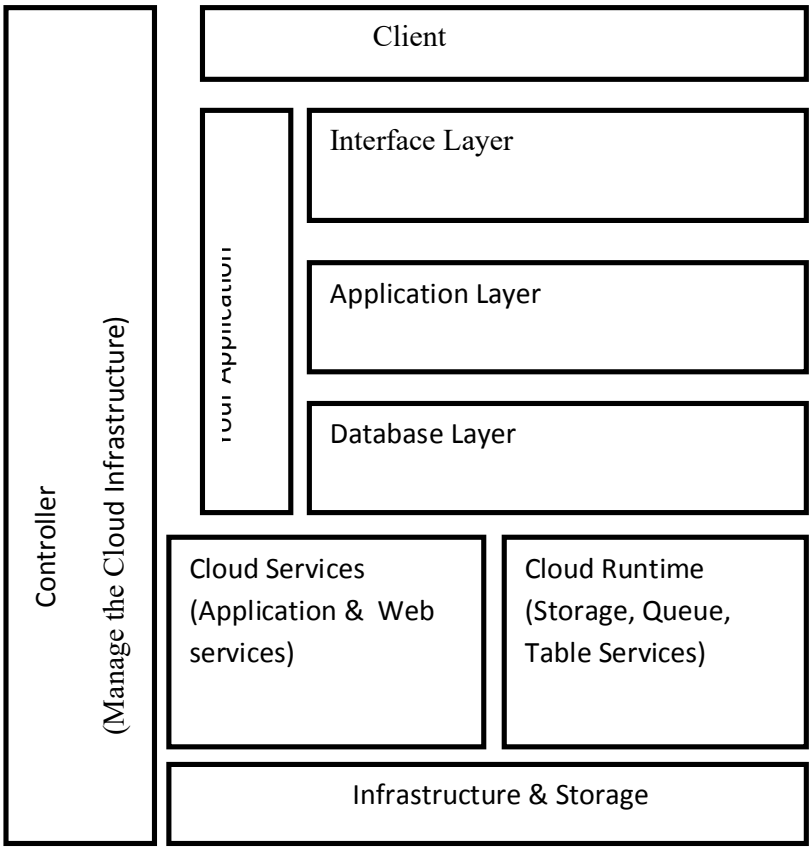
v) Peripherals:-Peripherals device like printer or scanner may not work with cloud many of them requires software to be install locally.

vi)Integration:-Integrating internal applications with those on cloud can be complex and it some cases not biable.

vii) Generic:-Public cloud offers in are very generic on offer multitenency service which all organization not be comfortable with implementing in cloud is more complex to implement and are bride. Some on the internal resources if the organization is not large enough.

UNIT-II
CLOUD ARCHITECTURE

Categories of Cloud Computing:



Cloud computing architecture refers to the various components and sub components of cloud that build the structured of the system. Broadly this architecture it can be classified into the frontend and the backend. The frontend and backend is connected to each other we are virtual network or the internet besides there are other components like middle ware cloud resources etc.

Frontend:

It is the side that is visible for the client customer or the user.

It includes the client computer the system or network that is used for accessing the cloud system.

Different cloud computing system has different user interfacing for email programs that support is driven from web browser like firebox, chrome, internet explorer etc.

And the other hand for other system there are unique application shared between the client and the services prorided.

Backend:

It is the side used by the services provided computers data storage system and virtual machines etc it bills together the cloud of computing services.

This system can include different type of computer program each application in this management by its own dedicated server.

Protocols:

One central server is used to manage the entire PC system this server is responsible for monitoring the traffic and making each and reek smoothly without any distribution this process in followed with the fixed set of rules called protocol.

Cloud Characteristics:

On Demand Computing:

The services of the cloud are provided to the cloud users can demand dynamically there by faciliting a demand computing.

Ubiquitous Access:

Provides the ability of the cloud services to be utilized by the cloud user worldwide from any place and time.

Multidenancy:

The single instance of the hardware or software he served to multiple clouds uses at a same time but each user all iosolated in them their performance there by facilitating multidenancy.

Rapid Elasticity:

The cloud platform can add or remove the resources at a any time with flexible elasticity.

Mastered Services:

The cloud platform keeps track of all the users and its resources usage cloud charges the customer for only it Utilized resources provide metered services.

Resilience:

It provides alternate resources and services to the customer when the resources is to be frame there by increment the availabilities and reliability and for tolerant of the system.

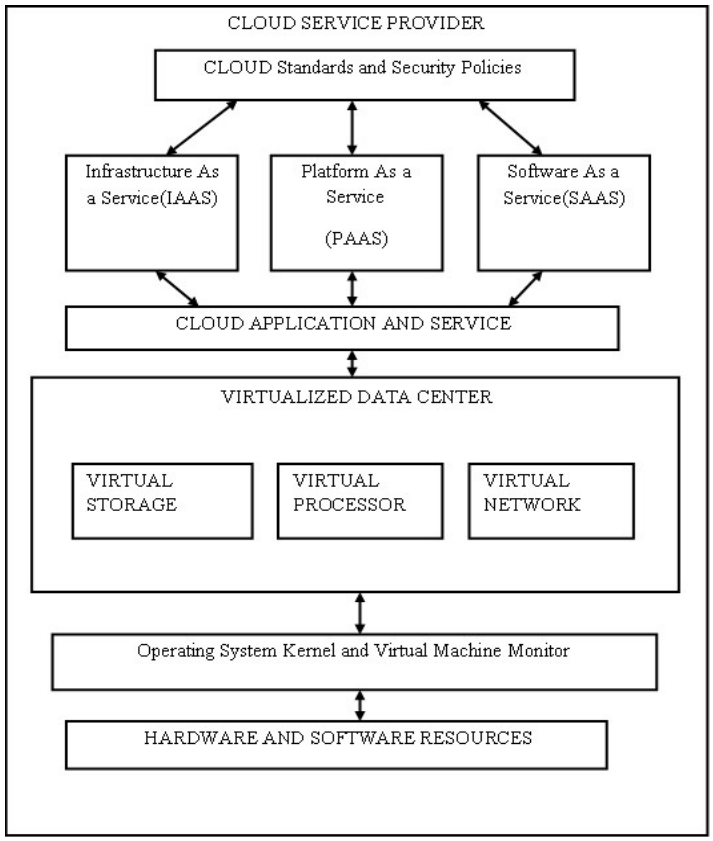
Categories of cloud computing:

The cloud computing is categories based on the services offered to the uses as help as cloud delivery modal in categories of cloud computing.

The cloud services are provided to the customer in user friendly with pay as you uses modal and the categories of cloud computing are ,

1. IAAS-Infrastructure As A Service

2. PAAS-Platform As A Service
3. SAAS – Software As A Service



Infrastructure As A Service:

The IAAS is delivery modal that provided infrastructure centric resources like storage servers, networks and desktop, to be accessed by the cloud customer through services base interface with internet measured cost for the utilize resources.

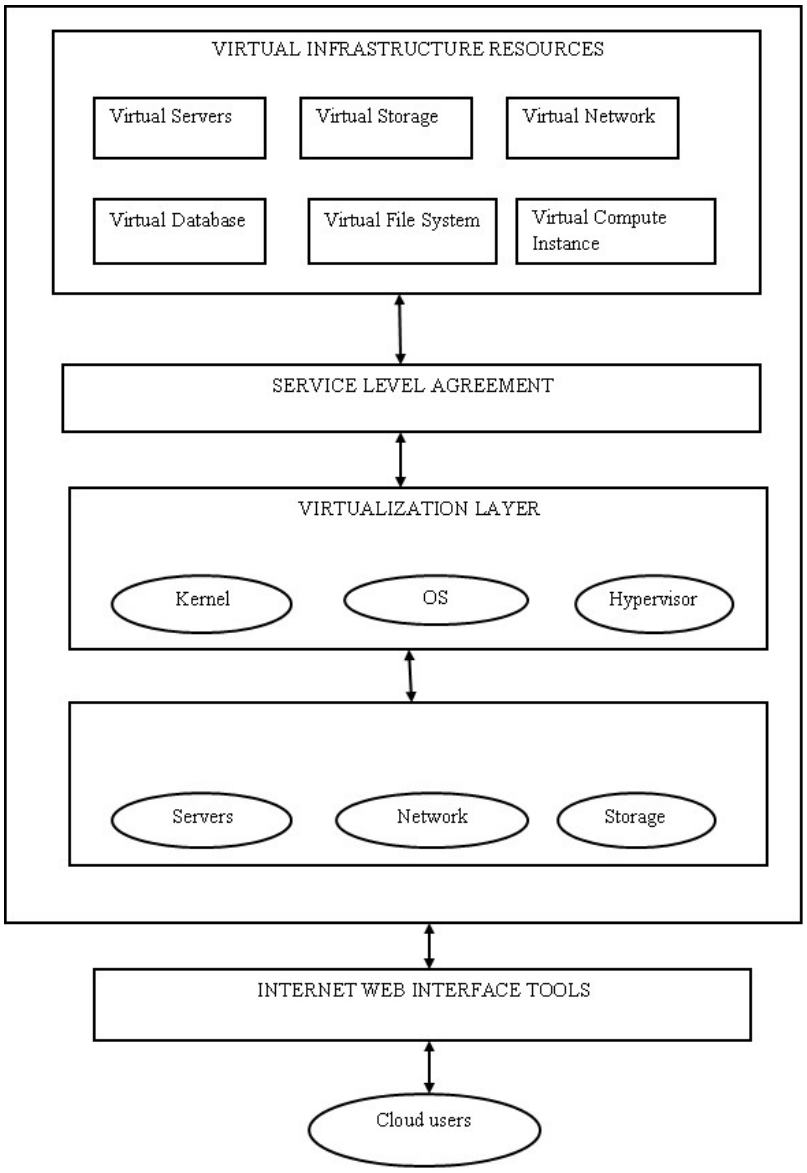
The virtualized resources of the IAAS is not free configured on the cloud customer can get they are resource on demand which is dynamically provision with the shad cool of configured virtual infrastructure resources as shown in the figure.

The cloud user can rest for the require infrastructure resources and can deploy and run its own application on the receive virtual computing resource from the cloud providing IAAS it consist of following service.

SAAS-Storage As A Service
CAAS-Compute As A Service
NAAS-Network As A Service
DAAS-Desktop As A Service
COAAS-Communication As A Service

There are various company providing IAAS
*Amazon Ec2 for computing
*Amazon S3 for storage
*Go-Grid

*Flexi scale
*Aneka
*Rack space
*Joint cloud
*IBM Blue for computing
*Nirvanix for cloud storage
*Mosso for Network



Platform As A Service:

When the cloud users need to develop their own application and their want to execute that application in the third party cloud service provide platform then they can go for using PAAS.

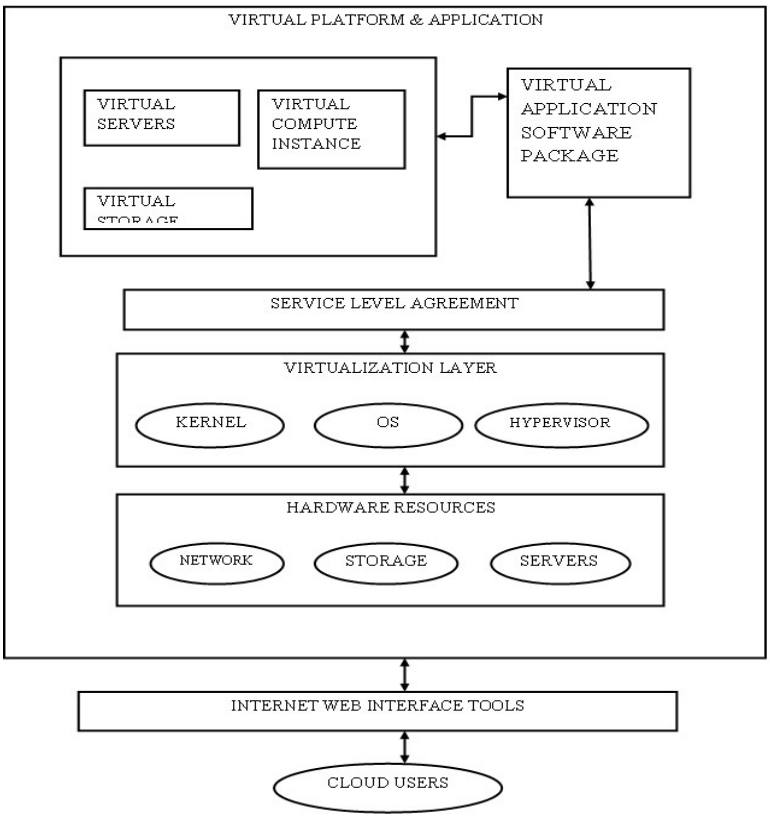
When the cloud customers are not able to by the original license software package platform along with their complier they are use pass and they can rent an application platform.

The PAAS has they are operating system and application library packages and users need only to deployed and run their application without involving in the management control.

The third party cloud provides will take care of the application packages software along hardware and software resources.

The cloud customer will develop application on the virtualized cloud platform with required platform programming software package supported by the cloud provide and they deploy and run the application on the third cloud platform and the user don't need to manage the application and it software package and the application testing will also be carried out but the cloud platform.

The PAAS provide service oriented architecture to the cloud users and improve the application productivity the cloud users need not maintain the space application, development and testing environment platform.



The PAAS reduces, the cost of initial software licensing, package their by reducing the operation cost of the reducing the operation cost of the cloud customer.

Companies Providing PAAS:

Google App Engine for python Java and chips Id

Sales force engine for APPEX, chips IDC and web based wizard Microsoft Assure for .net assure tools and visual studio package.

Force for IDE and Webpage wizard Amazon elastic map reduce for Java, per python, ruby PHP, c++ and Aneka for .Net and STK application.

PAAS is also termed as "ready to use"

Software As A Service:

When the cloud user are not able to by the software they can go for using SAAS cloud provider and they can rent the software for the required period .

The single virtual software application package is serviced to multiple customers and application management is control by the cloud provided.

The cloud users need not want to install any packages or servers for using the software provided by the cloud service provider and the users are only charged for the time they have used by the application based on the service level agreement.

Companies Providing SAAS:

Google docs for Microsoft word document.

Microsoft share point for PowerPoint design software application.

Sales force for CRM software application.

Google calendar for calendar application zoho planner for creating do list application.

Google spreadsheet's for web based Excel sheet workbook application.

Remember the milk for spreadsheet application.

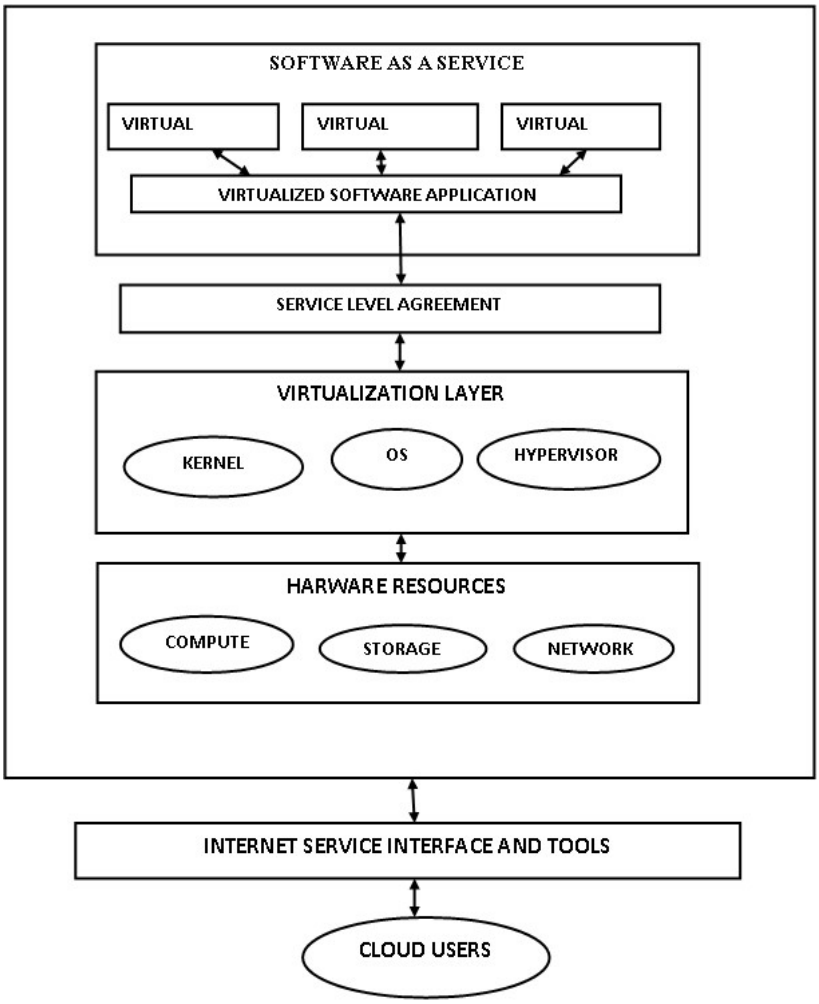
TATA list for Excel application.

My events for managing holiday card for list application.

High raised for managing the holiday card for list applications.

Base camp for project management applications.

The SAAS make the cloud customers to save then amount spending buying cost development and maintenance of the software along with license and infrastructure cost.



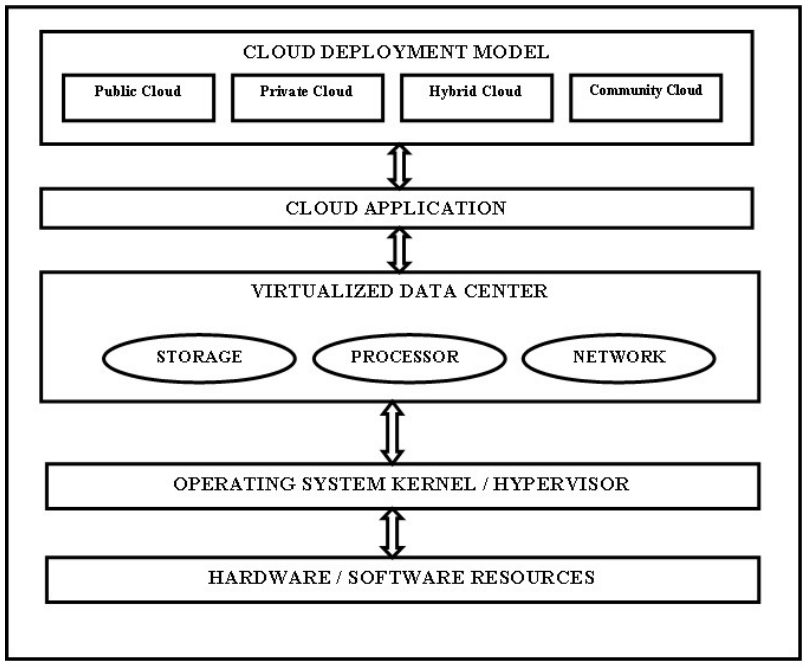
Cloud Deployment Model:

Virtualized cloud platform are on their top of distributed data center.

Cloud managers' large number of virtualized resources and its rapidly professional by contifigurable fool of resources which are dynamically provided to cloud customer.

Cloud computing deliver large number of services to cloud users threw dynamic resources professioning.

It also provides high threw put computing where the virtualized data center the cloud provide cloud service to the cloud users at any time threw internet and avoids high data transfer there by providing affective resource utilization flexibility, scalability and availability.



On demand professioning of hardware and software done threw virtualized data center platform cloud computing is the emerging technology.

That provide application hardware and software database and other resources are provide as a service to cloud users over the internet.

Cloud consist of a virtualization, virtualized hardware, software, network, service, storage and other resources are compine to a form a virtualized data center and deliver that computing as a service demand over the internet.

The Various Cloud Deployment Modal:

1. Public Cloud
2. Private Cloud
3. Hybrid Cloud
4. Community Cloud

Public Cloud:

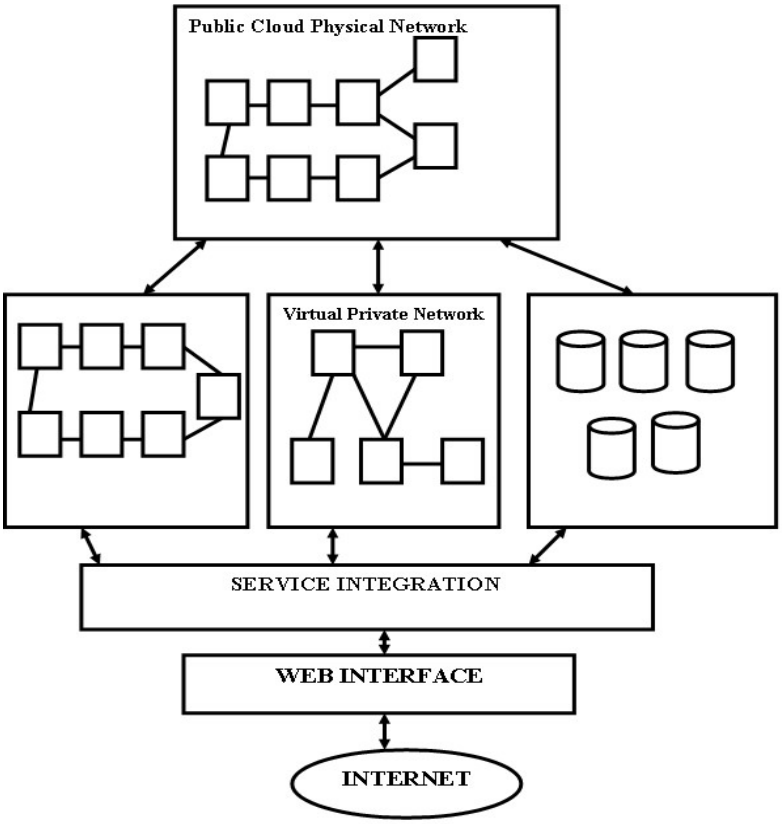
Public cloud is the provision of dynamically scalable
Virtual resources over the internet.

Public cloud is accessible threw internet by any time has paid for the receiving service.

Public cloud is build in owned by third party service provides. On the services are provided to the customer in worldwide

Some services of public cloud are providing a free service for free of cost to the customer.

All the service management activities like managing Security Deployment, Packup, Reliabilability, Reallocation, Abstract, and Durability. and Isolation are taken care by the third party service provides of public cloud.



The public cloud provide all the services like Intrastructure,Software and Application as service to the customer and the companies providing public cloud service are,

*Google
* Amazon
*Rock Space
*Go Grid
*Microsoft and VMware

Advantage of public cloud:

The public cloud reduces initial investment cost the application service work load provided by public cloud is public access social webpage, public websites and blocks.

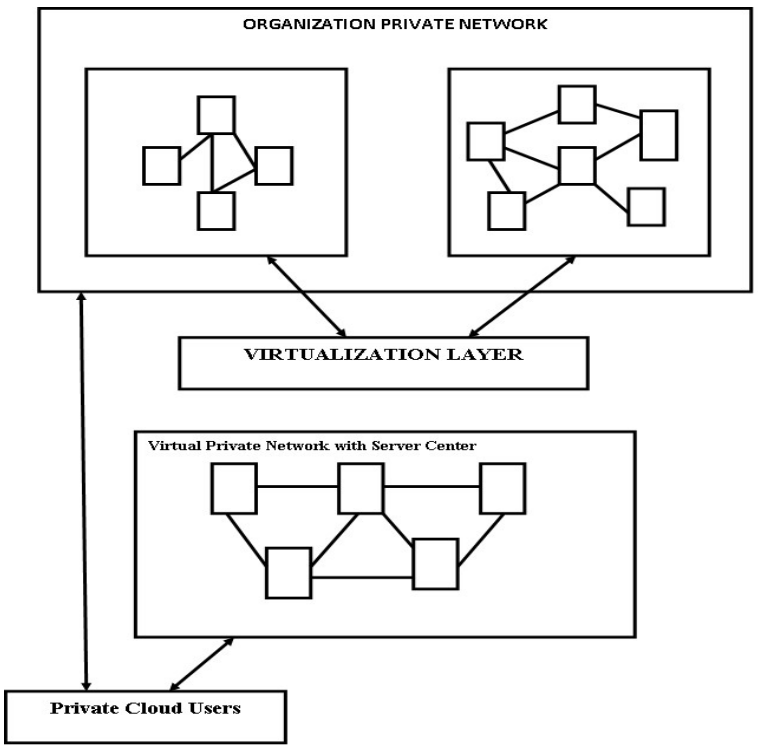
The public cloud will perform batch processing job with high security and data privacy The data intensive application are services effectively by public cloud with effective access and service discovery.

The usage of public cloud is low cost and the location of services is managed by public cloud with high speed and responded the availability of public cloud online storage is more reliable.

Disadvantage of Public Cloud:

Organization dealing with the sensitive data like financial information banking credit cards details real time research project are not advised to use public cloud.

Some companies will not outsource the personal employee details to the public cloud storage.



The business with application that needs more flexibility and autoligting will not prepare to use public cloud.

Auditing customize application with high accountability services required by the companies will not use public cloud for the out sourcing.

Private Cloud:

It is developed by the organization for their personal use and is not access by the public customer.

It can be deploy by the administrator of the organization by their unused resource of the network. The access of the private cloud is restricted for their client and employee and its overview.

The private cloud is process on side servers and it also supports on demand access provisioning and dynamic resource provisioning.

The Security of the private cloud is more effective with high availability the usage of private cloud is having high privacy and it s own by the organization and the private cloud is accessed by authorized user with their internet facility.

Advantage of Private Cloud:

The Private Cloud need to have more investment if we build the private cloud with our own unused resources of the network. Management and control of the private cloud is than by the organization itself so high security is possible.Multitanancy is also achieved by the private cloud by making one Resource instants to be access by multiple users. More security and control is possible in private cloud since Location of this virtualized resources is well known to the Organization. The complete implementation control of the private cloud is Taken care by the organization itself.

Disadvantage of private cloud:

Some resources researches point out the private cloud dose not
Realize the key benefits of cloud technology like less operating
Cost and maintenance.

Though the usage of resources by the private cloud is not changed for the customers they have speed money for upfront purches for the build in the private cloud.

If the private cloud is build for predefine work chant then if may be in efficient to server exits capacity workload application.

The service oriented access and dynamic resources provide control has to be fully taken use by the organization which a complex and tedious process.

Hybrid Cloud:

The Hybrid cloud is combination of public and private cloud. In general business organization resides the business real time critical services and information under their private cloud control and non critical business application are outsource to the public cloud which makes hybrid cloud intracture as shown in the figure

The organization which deals with both sensitive and non sensitive data can go for build in hybrid cloud platform infrastructure.

The sensitive information of the organization can be kept inside the private cloud infrastructure.

The non sensitive information of the organization can be outsourcing to the public cloud infrastructure.

The hybrid cloud uses both public and private cloud contain use assay by servicing both critical and non by critical business services in parallel.

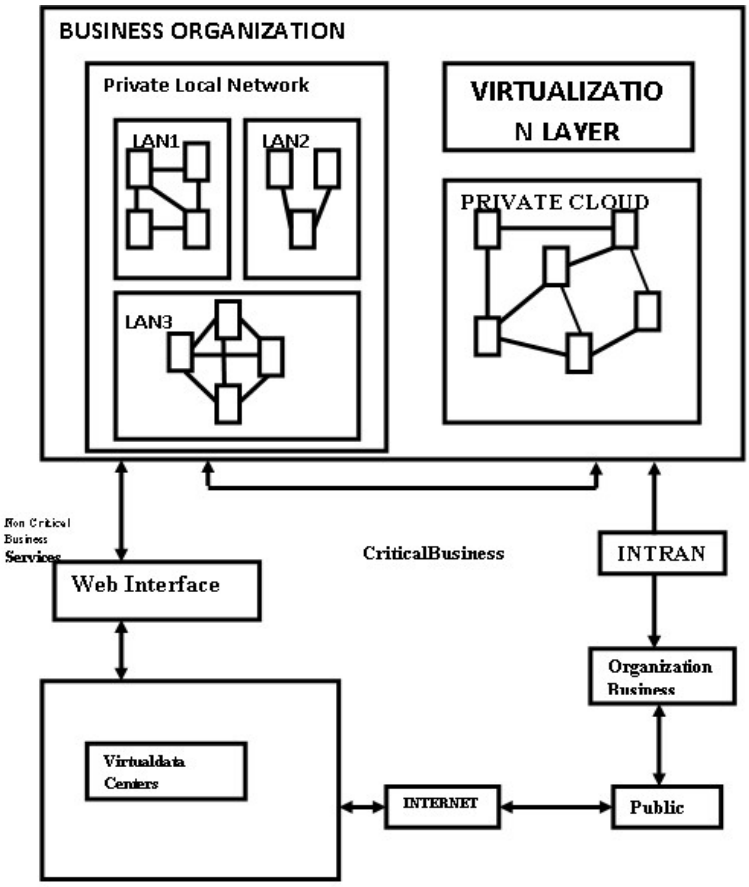
The security maintenance and control of the private cloud is taken care by the organization and the outsource business service are taken care and controlled by the taken care and controlled by the third party service provides.

Advantage of Hybrid cloud:

The hybrid cloud provides accessts both public users and private client and partners.

Since hybrid cloud provides both public and private cloud standardization low capital cloud and high security is achieved by its private cloud.

It provides efficiency customization; Availability, Reliability, Security and privacy threw the on premise infrastructure platform.



The responsibilities of the hybrid cloud are easily repeated as on –premise application an out sourcing application.

Building the hybrid cloud and its deployment is highly complex and it is the challenging task.

The security and maintenance of the hybrid cloud for and on-premise network separate control management.

The security for the non critical business is less when it is out sourced to third party cloud provides.

Community Cloud:

It is created and controlled by the group of organization who have shared same internet and they are all having same security policies.

The users of the community can access the network and share their resources outline threw interest access the community cloud is same as that of public cloud but the access to the community cloud is restrict the only belonging to the community.

The community cloud cannot be access by the unauthorized user who has not registered to the community group of organization.

The community cloud is jointly owned and administrator by the community group is by third party cloud service provider with restricted access only by the registered community.

Advantage of Cloud Computing:

1. Less expensive system for user
2. Number software instating
3. Low infrastructure cost
4. Low software cost
5. High performance
6. Less maintenance cost
7. Readymade software updates
8. High computing power
9. Unlimited storage
10. High data safety
11. High compatibility between operating system
12. Compatitaility document for word
13. Universal access to files
14. Group collaboration
15. Latest version application
16. User centric
17. High intelligent

Disadvantage of Cloud Computing:

1. Need Constant internet connection
2. Doesnot work with low internet connection
3. Slow processing
4. Limited Feature
5. Less data security
6. Less data customization

UNIT-3

FEDERATION IN CLOUD:

FEDERATION:

The combination of disparate things.so that they can act as one.As in federate states data or identy managment and making sure and all the right rools applied.

CLOUD FEDERATION:

1) Cloud federation refers to the unionization of software infrastructure and platform services from desparate networks that can be accessed by a client we are the internet.

2) The federation of cloud resources is facilliated through network gate ways that connect public or externel clouds like private or internel clouds owned by a single entity and/or community clouds owned by several co-oberating entities.

3) Creating a hybrid cloud computing environment.It is important to note that federated