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CC

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xxx Fundamentals of Cloud Computing xxx

— KRUSHNA. N.

① What is cloud Computing

→

• Cloud computing is a "on-demand" delivery of IT services on the internet with "pay-as-you-go" Pricing.

• Insted of Buying, owning or maintaing the data center & servers you can access this technologies like computational Power, storage & databases by the Cloud services like AWS, Google Cloud & Azure.

• There are Three Models of cloud Computing.

① Saas (Software as a Servic
② Paas (Platform
③ Iaas (Infrastruc)

Iaas > Paas > Saas

① IaaS

→ In Iaas where third Party Provides you Infra structure Services like Storagae, Virtulization operating system as you need them.

- work on "Pay-as-you-go"
- As you need any service you can access them from Cloud via internet.
- ~~Hardest~~ level of flexibility & Higest ↑ management
- ~~Most~~ of the control is to you

② Paas

- Pass removes the need of managing the infrastruture (usually hardware & OS). It allows you to focus on deployment & management only.
- This helps you to be more efficient as you don't need to worry about resources procedurement & capaciy planning.
- Halfway between Saas & Iaas

③ Saas.

- Known as cloud application
- Nothing is managed by the user.
- Just a end-user application
- eg: Email, google drive, Photos
- Here you don't need to worry about the management or service maintence
- Lowest level of flexibility.

ON-site	Access to Iaas	Access to Paas	Access to Saas
Application	✓	✓	×
Data	✓	✓	×
Runtime	✓	✓	×
middleware	✓	×	×
O S	✓	×	×
Server	×	×	×
Storage	×	×	×
Network	×	×	×
Eg	AWS, Azure, GCloud	~~Dropbox~~, ~~Salesforce~~ Heroku.	Gmail Dropbox

(2) Explain How cc help reducing Capital exependiture.

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• Cloud helps to reduce both Capital exependiture and the operationdl overhead.

Reasons (Explain each inshort)

1. Cloud computing is very flexible
2. Cloud Increases the IT Responsivenes and efficieny
3. Here you dont need to worry about maintaince
4. Need to Pay for extra disk storage spaces is removed
5. Easy to get up & less labour -intensive for compines
6. Less labour services needed
7. Flexibiling for Pay as you go

(3) What is Cloud as Per NIST.

→ Nation Institute of Standreds & Technology (NIST)

Defn :

Cloud computing is a model for enabaling ubiquitos, convinent, on-demand network acces to shared Pool of configurable Computing resources. like network server, storage & services. that can be managed by service provider.

Essencial Charaterstics:

① On-demand self service
② Broad Network access
③ Resource Pooling
④ Rapid elasticity
⑤ measured service.

④ What are types of cloud Comp.

→

① Private Cloud
② Community Cloud
③ Public cloud
④ Hbrid cloud.

① Private
: Computing resource is handeld by the single Person (customer)

② Community:
The service offer to any community or group.

③ Public cloud.
Here cloud services open to all Pubic

④ Hybrid
→ Public + Private.
User can suhich here

⑤ Pros & Cons of CC.?

→ Pros

- Reduce Cost
- Maintaince
- Consolidate data
- Enhance Collabration
- Scaldblt
- Increase automation
- Save on space
- Disaster Recovery (data loss)

Cons

- Under standing the co12
- Moving from Cloud
- limited Control
- Internet reliance
- Slower Backup
- Management for multiple Cloud.

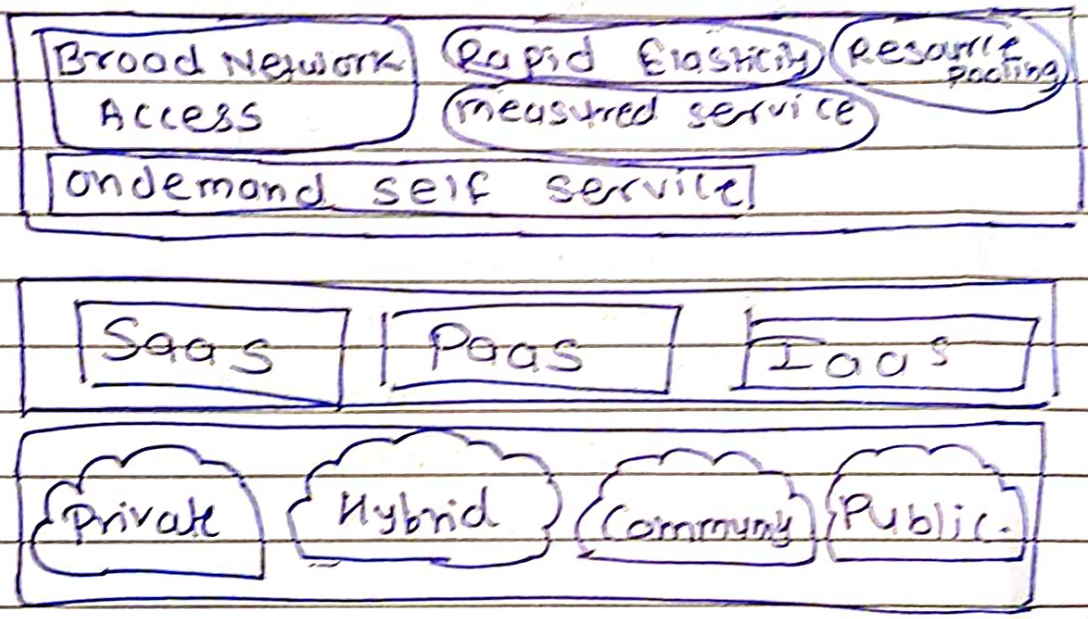
⑥ What are characteristics of CC?

→
① On-Demand Self service
② Broad Network Access
③ Resource Pooling
④ Rapid elasticity
⑤ Measured service
⑥ Security
⑦ Economical
⑧ Easy maintaince
⑨ multi tendency
⑩ Flexible pricing

⑦ What is Cloud Cube Model?

→
CC model helps to classify the cloud network based on 4-D factor.
The main focus
⇒ Protect & secure Cloud Network.
Helps IT managers, organization & bussisness leaders to secure Network.

CHARACTERISTICS ⇒ 5
MODELS ⇒ 3
TYPES ⇒ 4



Cloud cube model.

⑧ Federated cloud computing.

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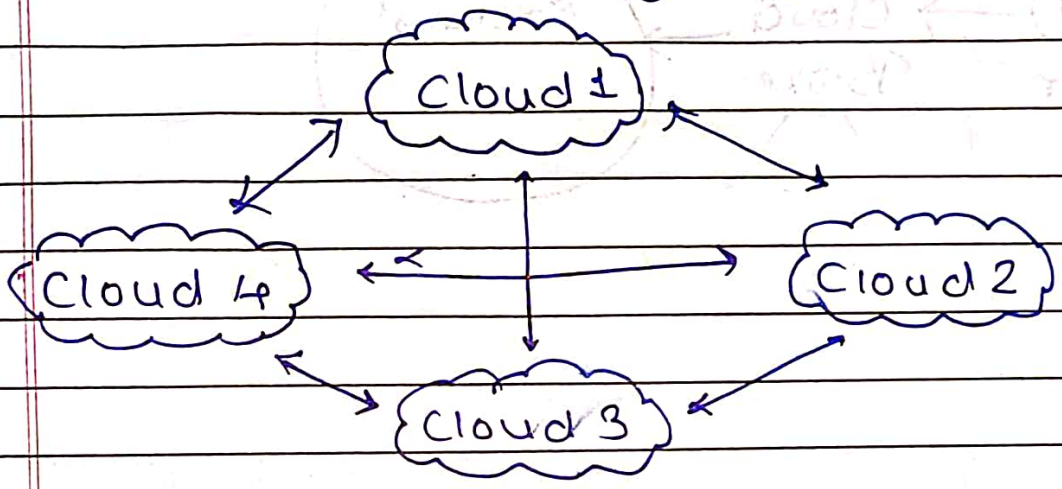
Fedrated cloud model also known as cloud fetration

- Placement & management of servral external & internal cloud computing facilites such as Bussiness need

- Involves multiple cloud computing providers working together



Architeture of fedrated cloud

fedration: union of small parts that do common work.

(Fedration of worker)

- It integrate community, private. public cloud.

3 components:

1. cloud exchange → Intermidate
2. cloud co-ordinator
3. cloud Broker