unit 5

(1) content centric Network:

→ It is a new Internet architecture that is used to replace IP based Internet structure in near future.

→ Eg: If you have a doubt of a particular sub. then you would first clear with your friends Instead of going near professor, if y! too don't know he would approch the his friends the same way cycle repeats till you get the Info. In the same way CCN works.

→ when we search in the URL Bar, Instead of connecting to some IP address, the browers will send Interest packet in the network looking for some necessary data.

→ When a node receives an Interest, it checks local memory (cache) for matching Content

→ orelse node forwards to other Interface, till the Interest packet satisfies the Information

→ Node → Mobph, Laptops all devices that have memory to cache data.

Advantages:

- help solve issues Involving complex.
- knowledge-based.
- long running processes frequently requiring the review & approval of high-value content by multiple stakeholders in organisation

2) Net-centric:

→ It is the way of managing data, applications, Infrastructure on your cloud.

→ It can be considered as an evolution of SAAS.

→ Net centric allows organization to focus on their core-business with limitations on hardware/software

→ Infrastructure can be built with the help of internet this is provided by net centric

→ ~~One~~ Server ~~is~~ 1/more Server issues, hardware issues can be solved by net centric.

→ With the help of net-centric, http protocol can be accessed like Internet.

~~→~~ Thus ~~it~~ will be ~~so~~

→ If our company is using net centric, even modern technology like LAN, WAN can be adapted.

→ When IT companies Virtualize to complete cloud based then too we can take advantage of modern network like LAN, WAN.

Q) Advantages of cc: (Non-exhaustible reasons of cc)

- Here the scalability can be maintained easily if the organisation has 100 members, if within a year employee increased to 1000 we can easily scale up the data. or vise versa.
- Reliability: If we store some amount of data Eg: 1GB, if the data get lost / corruption, it not the mistake of users. its responsible of cloud platform
- Cost Reduction: Here rather than cloud computing if we try to maintain data we need person for security purpose & so on. If we purchase cloud other accessories amount will be saved.
- Flexibility: Data can be modified accordingly. If we want we can add / remove data, same goes with employees.
- On demand self service: If we (user) request for any service, On demand service will be provided. There is no human involvement, everything will be based on algorithm & coding.
- Pay as you use: how much services we use we need to pay accordingly

We can use mob, laptop any device to get cloud computing services

Q] Delivery models (IAAS, PAAS, SAAS) :

Saas → frontend, backout everything will be done in saas (cloud). (Google draw box) just we need to use

paas → If we know coding, everything will be provide such as platform and all stuff by cloud services. Eg: Window Azure, AWS.

IAAS → Here we might be knowing coding, as well as we have platform, if we want to host a website we need storage, network for that Infrastructure service is Imp

→ In saas ifwe we consider Eg of Pizza, when we order pizza we don't know how the chef prepare, just we can have outside look & tast.

→ saas is comparatively costly bcz cloud manages everything

→ In paas, we buy the Ingridents & give it to chef they prepare everything

→ less costly compared to Saas, bcz some things are managed by users.

→ Here, Iaas, If buy Ingredients, we cook, here all work is done by us only

→ cheaper compared to Saas, paas

Q) Ethical / legal issues in cc :

→ • Liability : whenever we lose / data gets corrupted, we need to know whose legally responsible for this ?, usually cloud provider will be responsible. (Google, Microsoft)

• Law : Each & every country has its own laws, the Service provider as well as user need to obey / follow the laws / rules accordingly

• Copyright : whenever the data is copyrighted an unauthorized user should not try to access / modify it, Security need to provided by cloud Service.

Data Portability : Cloud Service provider must allow users to transfer data from one cloud platforms to another cloud platform. i.e port / move / migrate

• Compliance : whatever rules / laws provided by countries are being followed by Cloud Service provider or not need to be checked by compliance

Q) Cloud vulnerabilities :

Q) Challenges faced CC :

→ • Security & privacy: CSP (cloud service provider) should make sure our data (user) is secured i.e should ensure DI, DA (Data Availability), DC (Data confidenciality)
privacy: The details regarding End users must b kept private, such as IP address, os, storage etc
• Reliability & Availability:
Availability: data must be available 24×7 for end users i.e it must be on-demand self service
Reliability: same as written before.
• Portability: movable from one place to another Initially if we are using Google cloud service after some years if we want to shift from google cloud service to AWS is done with help of portability
• Computing performance: If multiple users req-uest for some service, CSP must parallely able to provide service for each user
• Service Quality: If we may accordingly to cloud we need to get service accordingly. i.e gui & all