

UNIT-IV : Networking for CC :

- Introduction
- Overview of Data Center Environment
- Networking Issues in Data Centers
- Transport layer Issues in DCNs
- cloud Service Providers.

6). Data Center Environment, n/wing & transport layer issues in data center.

Data center Environment - physical/virtual facility

- Large group of servers, storage systems, & n/w devices.
- Supports cloud services & applications,
- A data center is a facility containing servers, storage, n/w devices for cloud services.

Networking Issues

- 1. High latency - Scalability Problems
- Load balancing
- N/w congestion
- Bandwidth width limitation
- Traffic mgmt
- Packet loss

Transport Layer Issues

- Packet loss
- Congestion control
- TCP performance problems

Main Components of DCE

- 1) Servers
- 2) Storage Systems
- 3) N/w devices
- 4) Cooling systems

5. Power Supply
6. Virtualization environment
7. Security Systems
8. cloud management s/w

Characteristics

- High availability
- Redundancy
- Scalability
- Fault tolerant
- Multi-tenant

⇒ DCE is a physical or virtual facility

- where servers, storage systems, n/w's and cloud infrastructure are hosted,

- AWS is one of the world's leading cloud service platforms (provided by Amazon)
 - offers on-demand, ~~is~~ services, storage, DBS services
- It follows the pay-as-you-go model.
- It offers many online services like virtual machines, sto, db...
- We can use it from anywhere

AWS Services

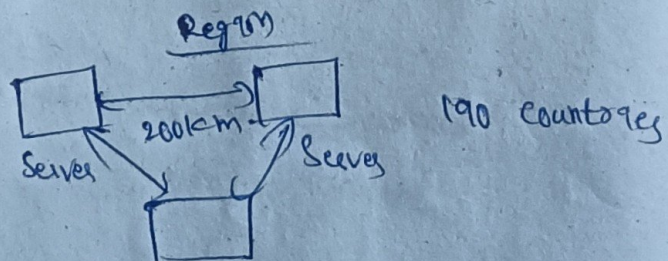
- ① EC2 — provides virtual computers
- ② S3
- ③ SQS

Azure, AWS, Google cloud.

→ AWS provides 170+ services

- Simple Storage Service
- cloud watch (after deploying we can check bugs)

→ Company
Netflix
Adobe



- Jobs
- cloud developer
 - AWS cloud architect
 - AWS AI/ML specialist

①. EC2

gs)

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