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Hybrid Cloud & Multi Cloud Architectures

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In this segment

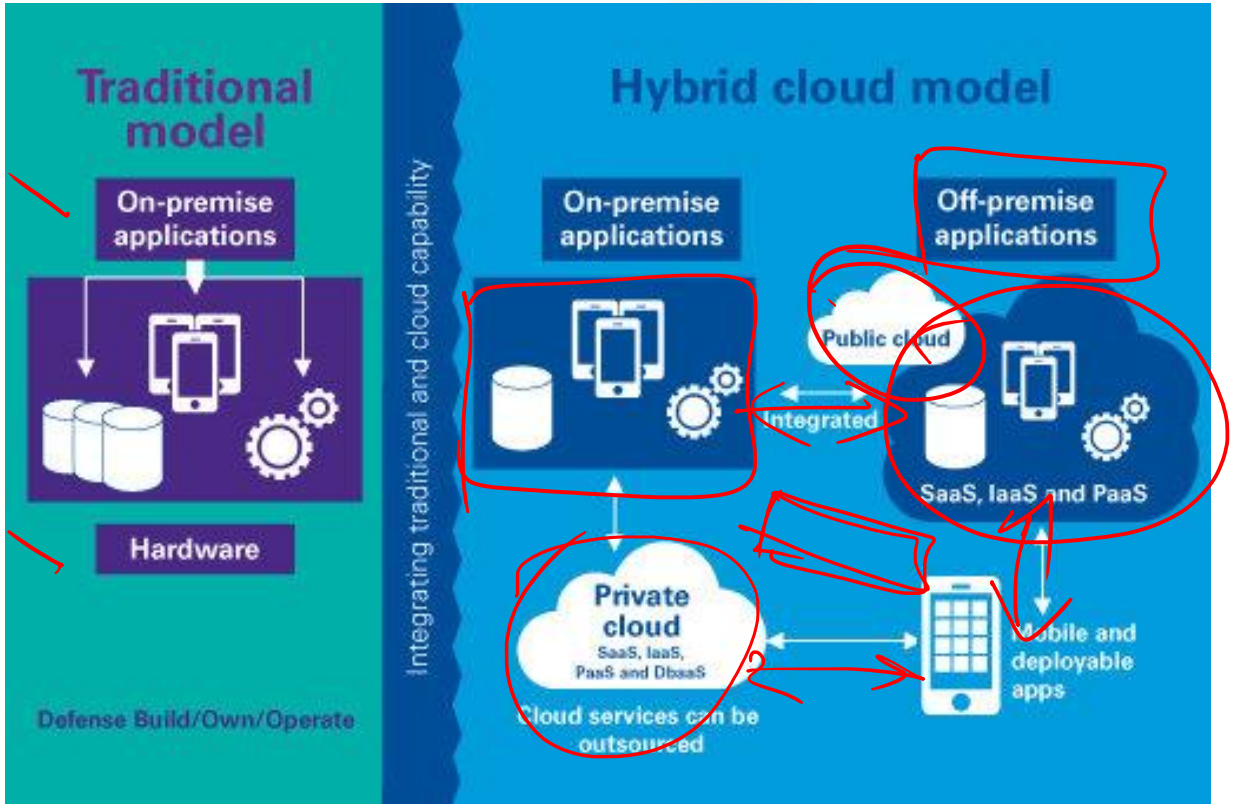
Hybrid Cloud & Multi Cloud Architectures

- Hybrid Cloud
- Multi-cloud architecture
- Load balancer in cloud - ELB

Hybrid Cloud & Multi Cloud Architectures

Hybrid Cloud

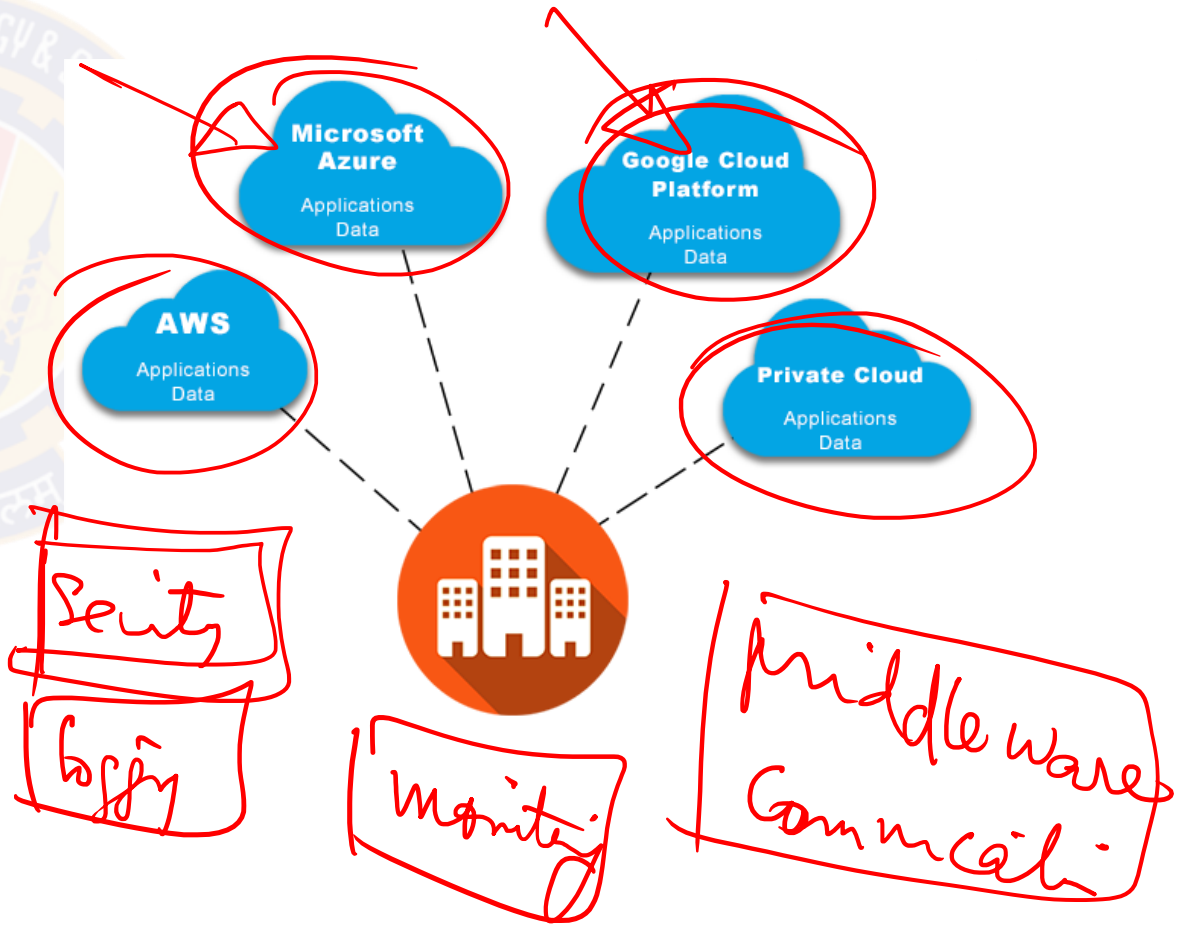
- Hybrid cloud has part of an enterprise's computing is provided by a separate cloud provider and part is done in house



Hybrid Cloud & Multi Cloud Architectures

Multi Cloud

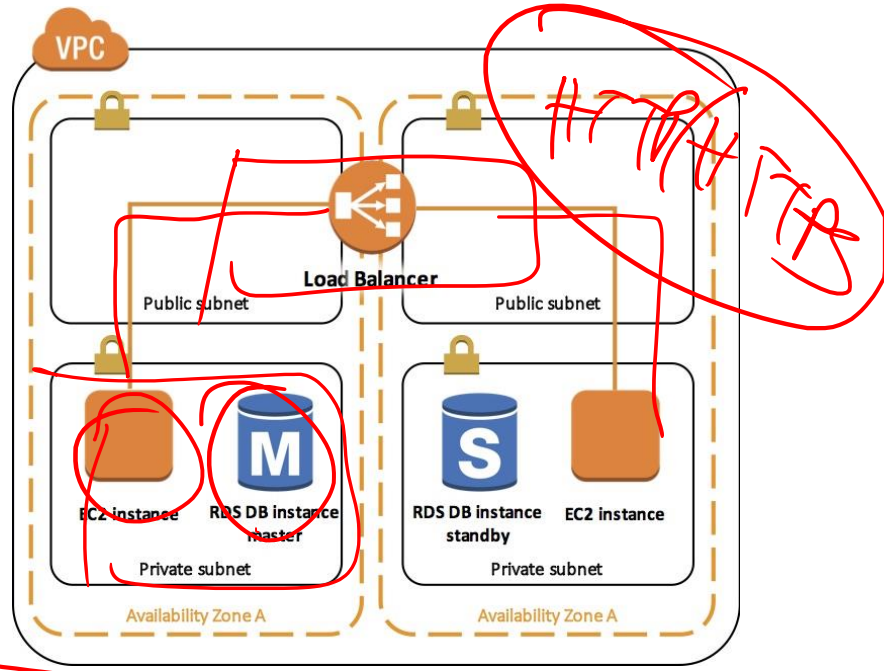
- Multi cloud setup has an enterprise utilizing services of multiple cloud service providers in tandem (optionally with their on-prem traditional infra or private cloud)
- Advantages
  - Cost effective
  - Independence from a single provider
  - Flexibility through choice
- Disadvantages
  - Complexity of managing affairs
  - Security is a challenge
  - Redundancy and High availability across providers

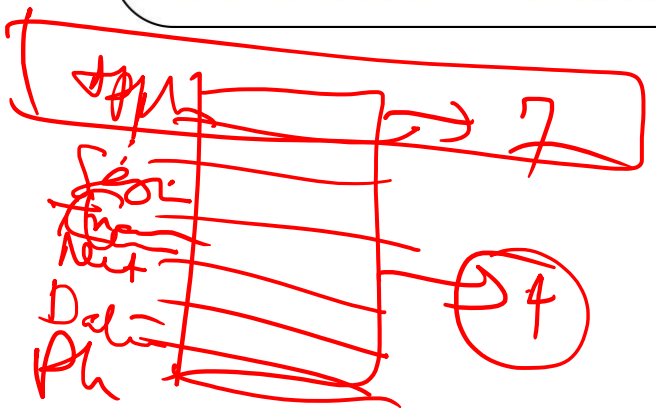


Hybrid Cloud & Multi Cloud Architectures

Load Balancing in Cloud – AWS Elastic Load Balancing (ELB)

- Elastic Load Balancing automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, IP addresses, and Lambda functions
- AWS ELB has three types of loan balancing
- Application Load Balancer
  - Best suited for load balancing of HTTP and HTTPS traffic
  - Operates at request level (layer 7 of OSI
- Network Load Balancer
  - Best suited for load balancing of Transmission Control Protocol (TCP), User Datagram Protocol (UDP) and Transport Layer Security (TLS) traffic
  - Operates at connection level (layer 4 of OSI)
- Classic Loan Balancer
  - Provides basic load balancing across multiple Amazon EC2 instances and operates at both the request level and connection level





Hybrid Cloud & Multi Cloud Architectures

Load Balancing in Cloud – AWS Elastic Load Balancing (ELB) - Demo

- ELB Demo

Thank You!

In our next session:

Specialized Middleware – NoSQL Database