**Hypervisor**

* Hypervisor is a software to create virtual machines
* Hypervisor has two variants
  + Install Hypervisor on existing operating system
    - Examples:
      * HyperV
      * KVM
      * Virtual Box
      * VmWare Workstation
  + Install hypervisor on bare metal (as operating system)
    - Examples:
      * VmWare ESxi  
        Onpremises
* This refers to servers/DataCenters maintained by organizations who build applications.
* To ensure the BCDR (Business Continuity and Disaster Recovery) organizations opt for redundancy
* These Redundant Datacenters should have very high speed connectivity b/w them

**Cloud**

* So far, our discussion was around maintaining physical servers.
* Amazon Web Services Launched by AWS shared their first service S3 (Simple Storage Service)
* Terms:
  + Service: This is offering from the Cloud Services Provider to realize some infrastructure/application need.
  + Resource: Using the service what we create is Resource. You will generally be charged for using the Resources
  + Cloud Services Provider: This is an organization who provides services to realize applications (AWS, Azure, GCP, Ali Cloud)
  + Cloud Services Consumer: This is organization/individual who is creating resources.
  + On Demand: This refers to creation of resources whenever there is a need and all we have is a valid account and internet connection.
  + Pay as You Go: This refers to paying the monthly bills based on usage
  + Metered Service: Every Service is metered i.e., your usage will be tracked based on resource usage.
* Tenancy: This refers to a hardware asset and customers we serve using that
  + Single Tenancy: This refers to serving single tenants (organization) on the same hardware
  + Multi Tenancy: This refers to serving multiple tenants (organization) on the same hardware
* As of now **Cloud is all about using someone else’s Hardware/Computer/Server**