

Virtualization

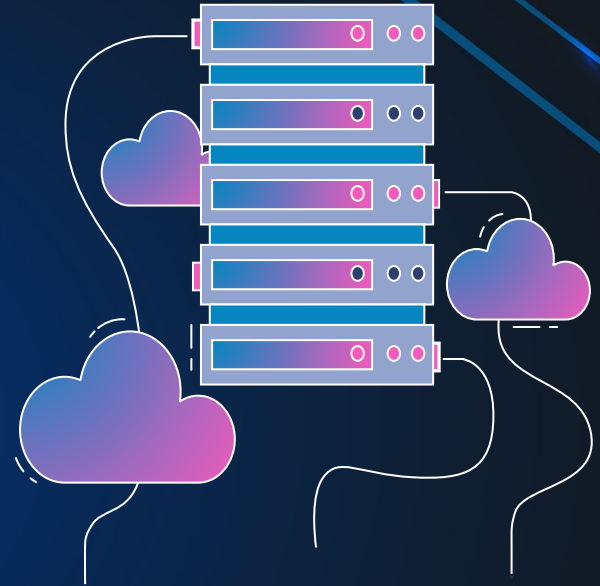
Introduction

**One computer
does job of
many
computers**



Life Before Virtualization

- To Run App/Services we need Servers
- Physical Computers (Servers in Datacenter)
- One Service - One Server (Isolation)
- Servers are always overprovisioned
- Server Resources mostly underutilized
- Huge Cap Ex & Op Ex



What is Virtualization

- Enter VMware
- Allows one computer to run multiple OS
- Partition physical resource in virtual resource
- Virtual Machines runs in Isolated Env
- Each virtual machine needs its own OS
- Server Virtualization is the most common virtualization

Terminologies

- Host OS
- Guest OS
- VM
- Snapshot
- Hypervisor

Types of Hypervisor

- Type 1
 - Bare Metal
 - Runs as a Base OS
 - Production
 - E:g VMware esxi, Xen Hypervisor
- Type 2
 - Runs a software
 - Learn & test
 - E:g Oracle virtualbox, Vmware server