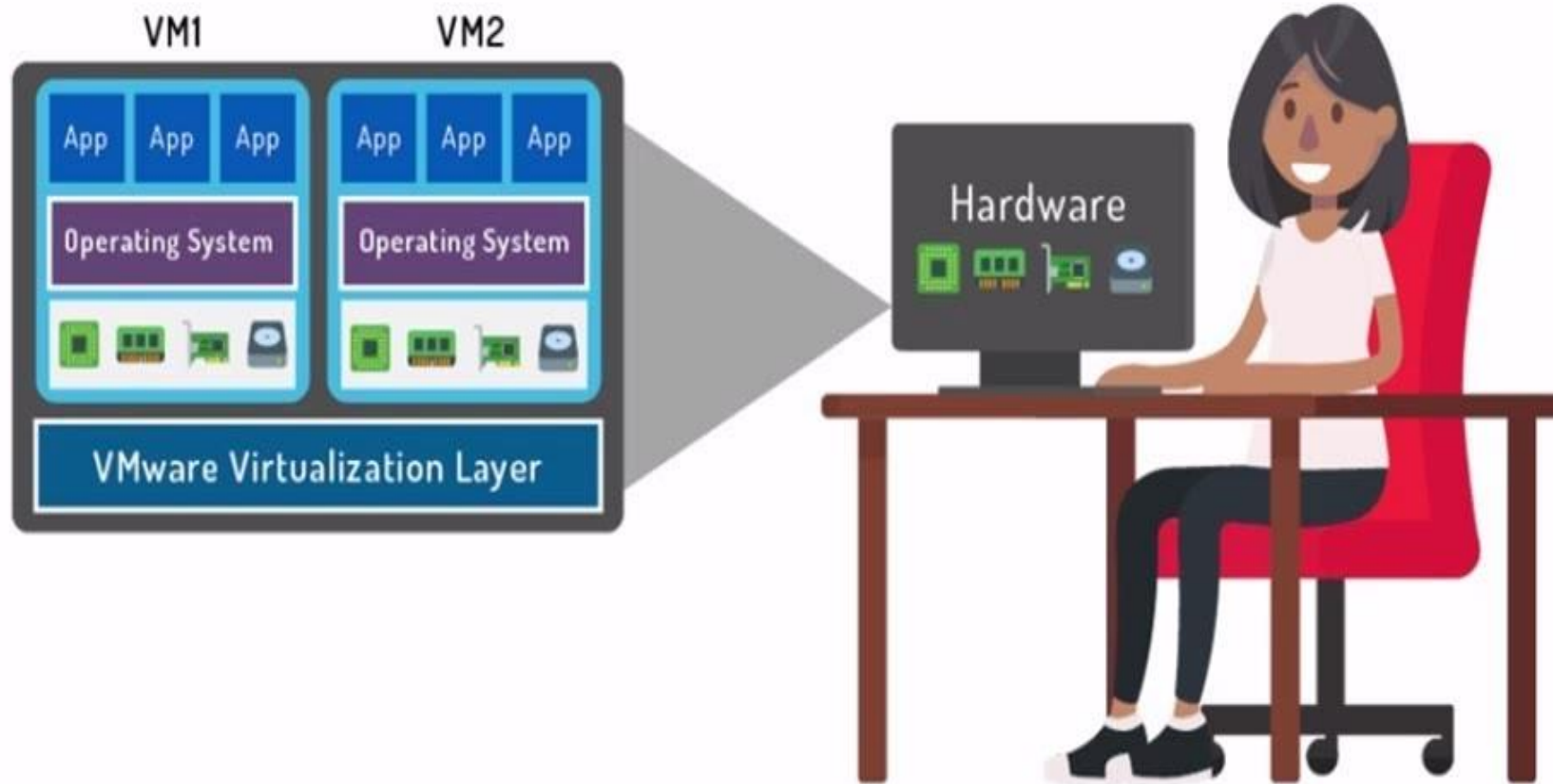


Virtualization

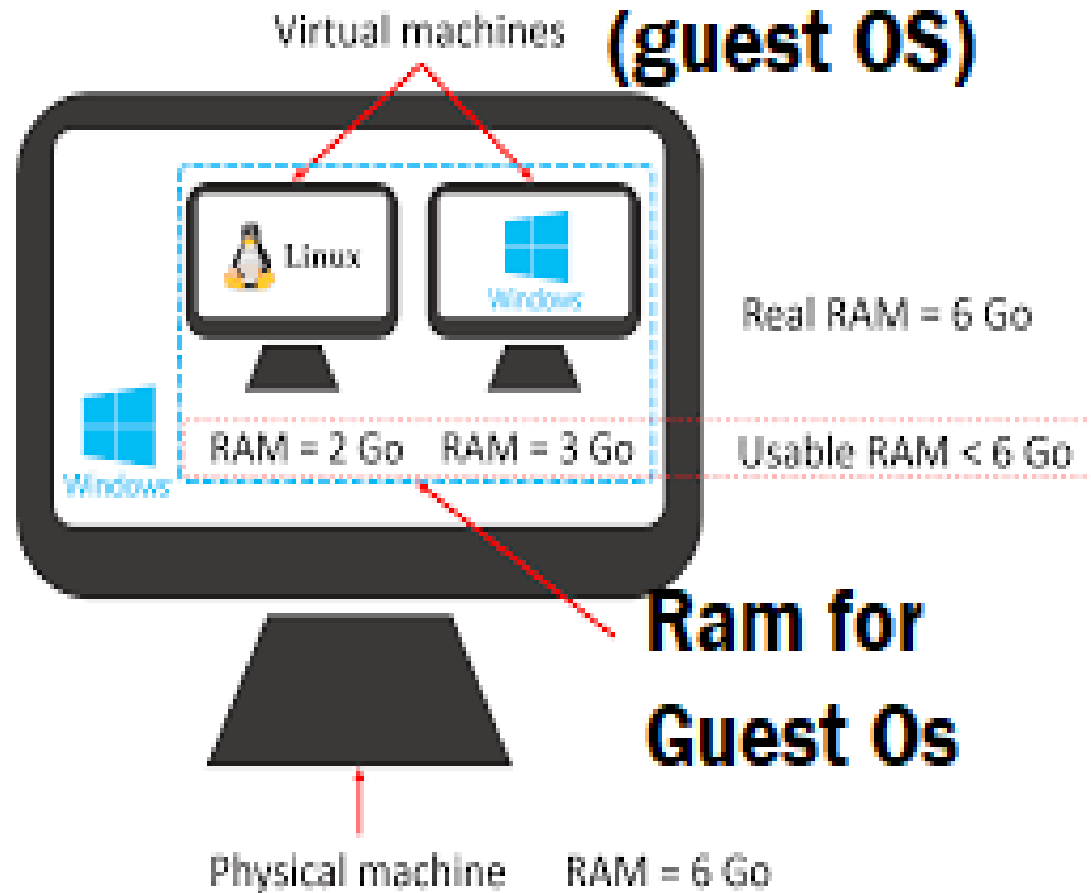
PREPARED BY
ARAVIND KUMAR G.K
Senior DevOps Engineer

What is Virtualization?



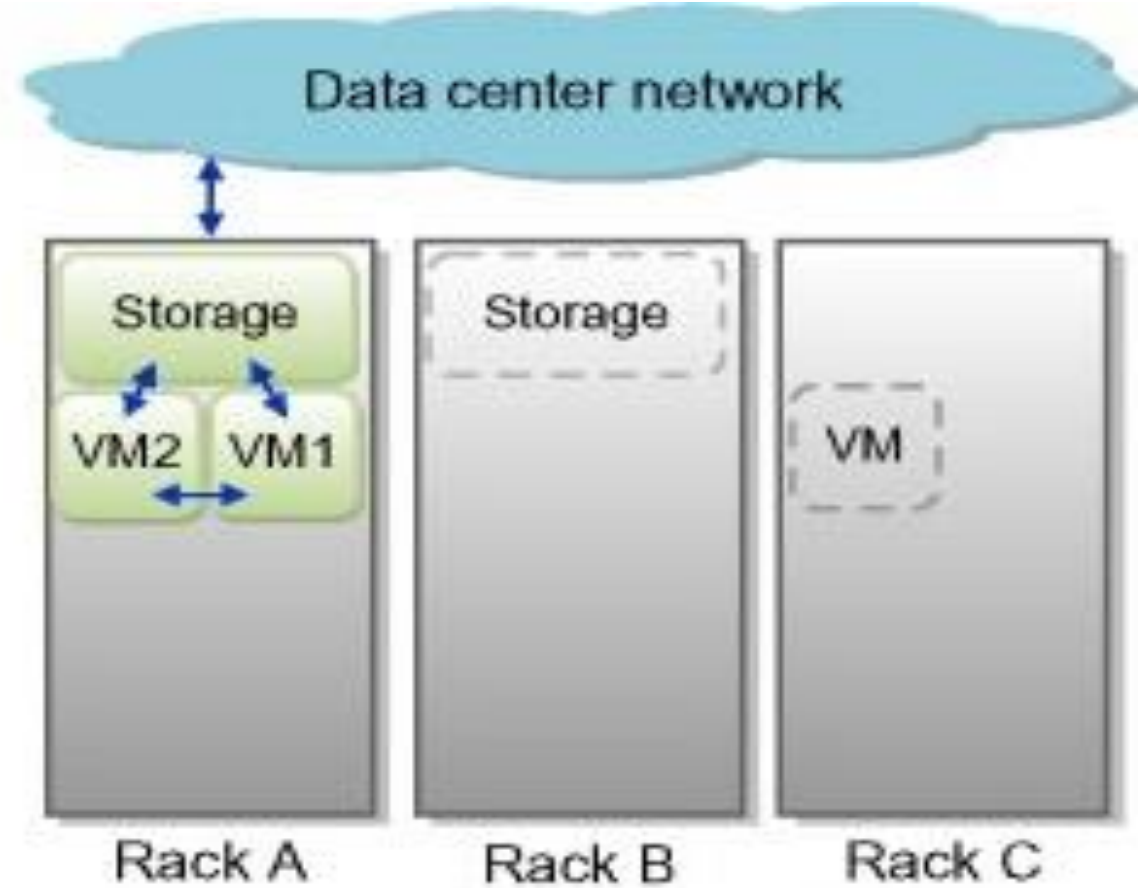


VIRTUALIZATION



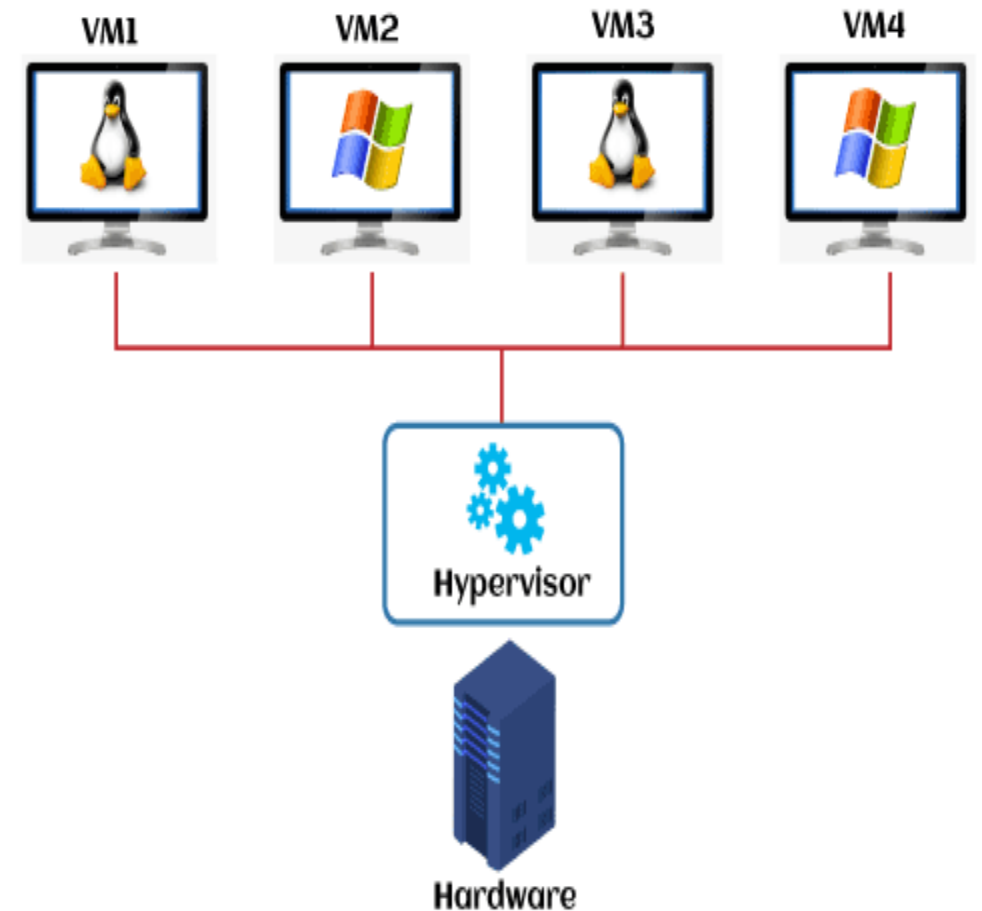
In computing, virtualization or virtualization is the act of creating a virtual version like virtual computer hardware platforms, storage devices, and computer network

PLACING VM IN DATACENTRE



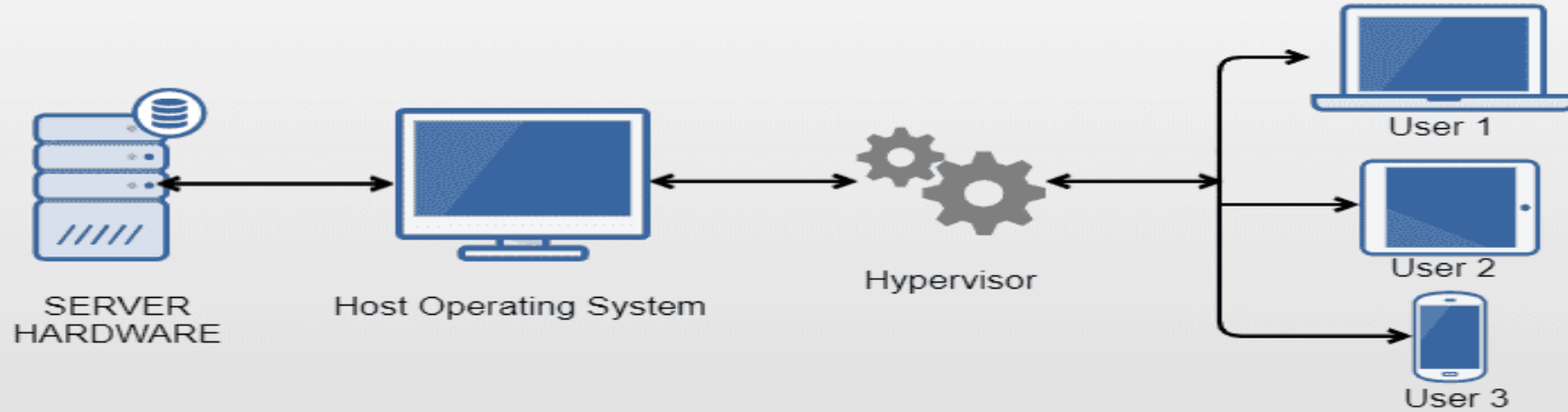
What is Hypervisor?

- A hypervisor allows one host computer to support multiple guest VMs by virtually sharing its resources, such as memory and processing.
- A hypervisor, also known as a virtual machine monitor.

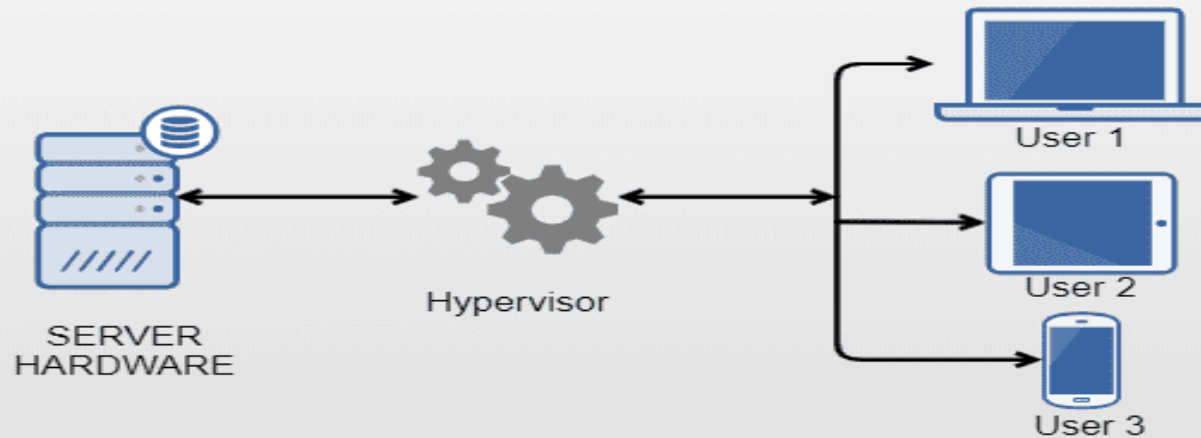


Hypervisor Types

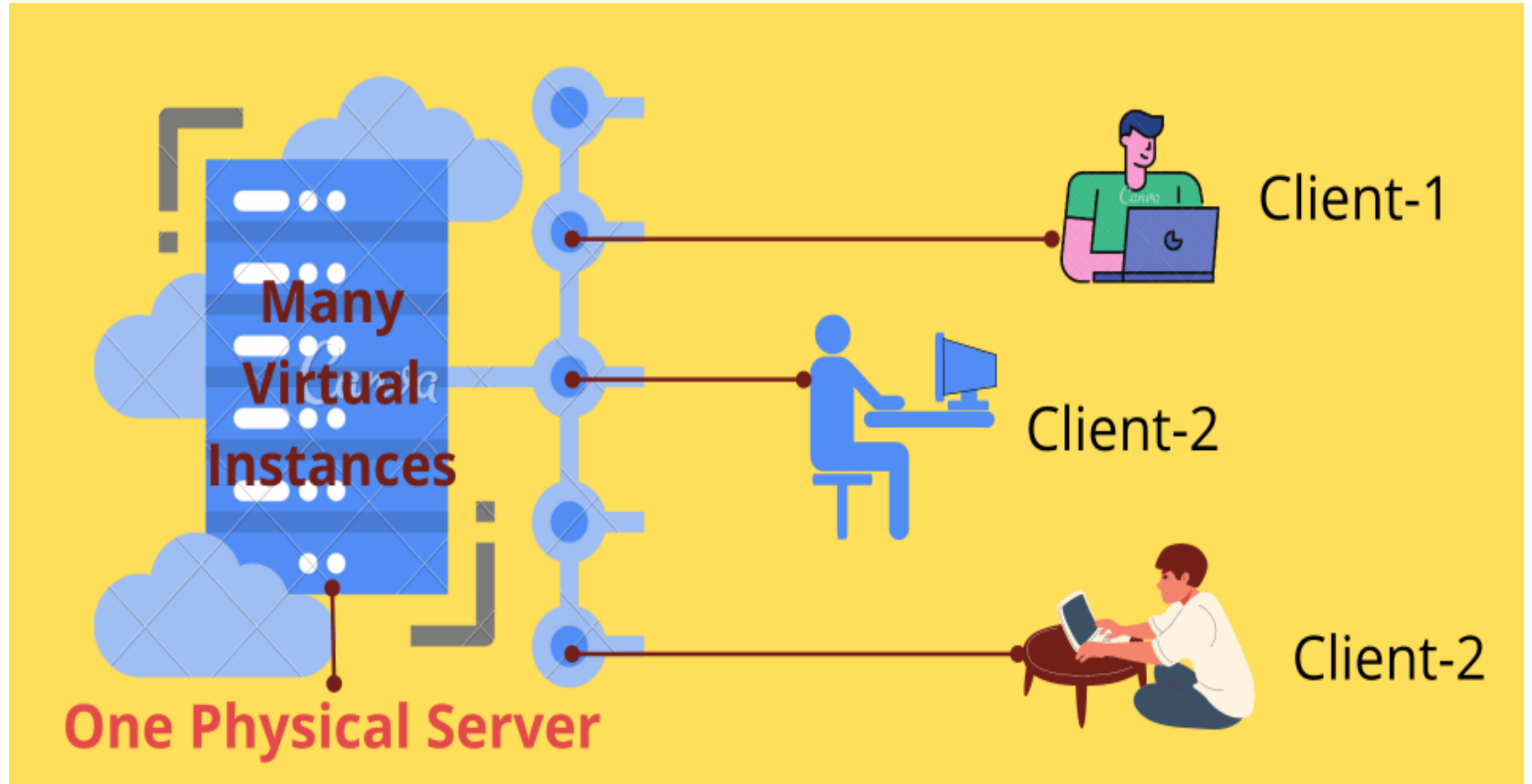
Type I / Bare-metal / Native Hypervisor



Type II / Embedded / Hosted Hypervisor



Remote Management



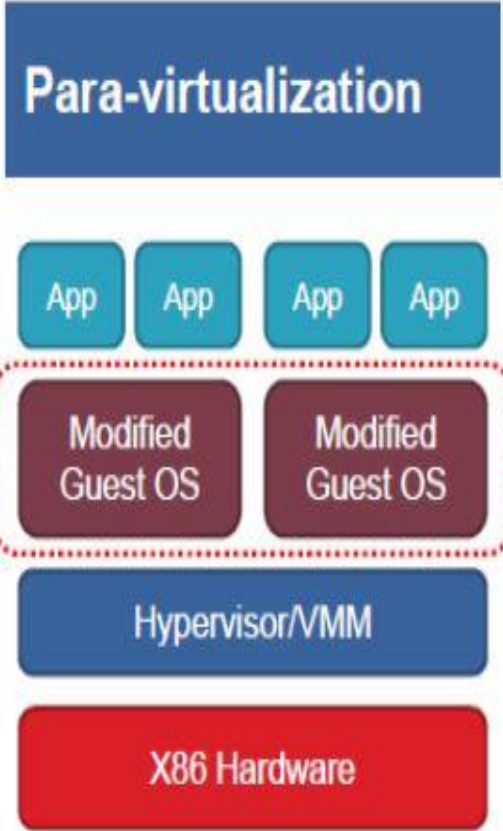


**Full
Virtualization**

The diagram features a large, light beige arrow pointing to the right. Inside the arrow's shaft are two rounded rectangular boxes. The left box is light green and contains the text 'Full Virtualization'. The right box is a darker shade of green and contains the text 'Paravirtualization'.

Paravirtualization

Full Virtualization	Para Virtualization
VmWare, Virtual Box, KVM, Xen-HVM	Xen, ESX-Server , KVM-PV
Hybrid GuestOS can be built over the Hypervisor	Only Linux GuestOS can be built over the hypervisor
Hybrid Computer Architectures can communicate with each-other	Similar Computer Architectures can communicate with each other
Generally a Low Efficiency in I/O	Generally a High Efficiency in I/O
Generally a High overhead	Generally a High overhead
Generally Big time delays during processing	Generally no time delays during processing



Virtualization Benefits



Cost Saving



More efficient
resources provisioning



Improved
productivity



IT consolidation



Better
management



App dev is easier,
safer



Flexibility and
scalability



Hosting
multiple OSes



Improved storage
capacity management



Business continuity



Disaster recovery
is easier

Virtualization Tools

Type 1 Hypervisors



VMware
vSphere



Microsoft
Hyper-V



Type 2 Hypervisors



Thank You



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