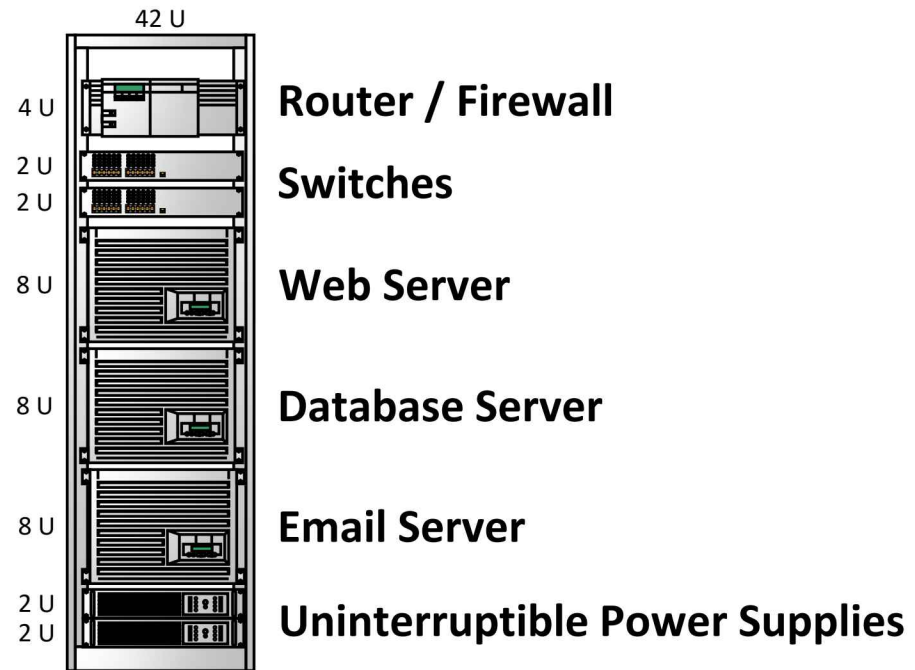


Server Virtualization

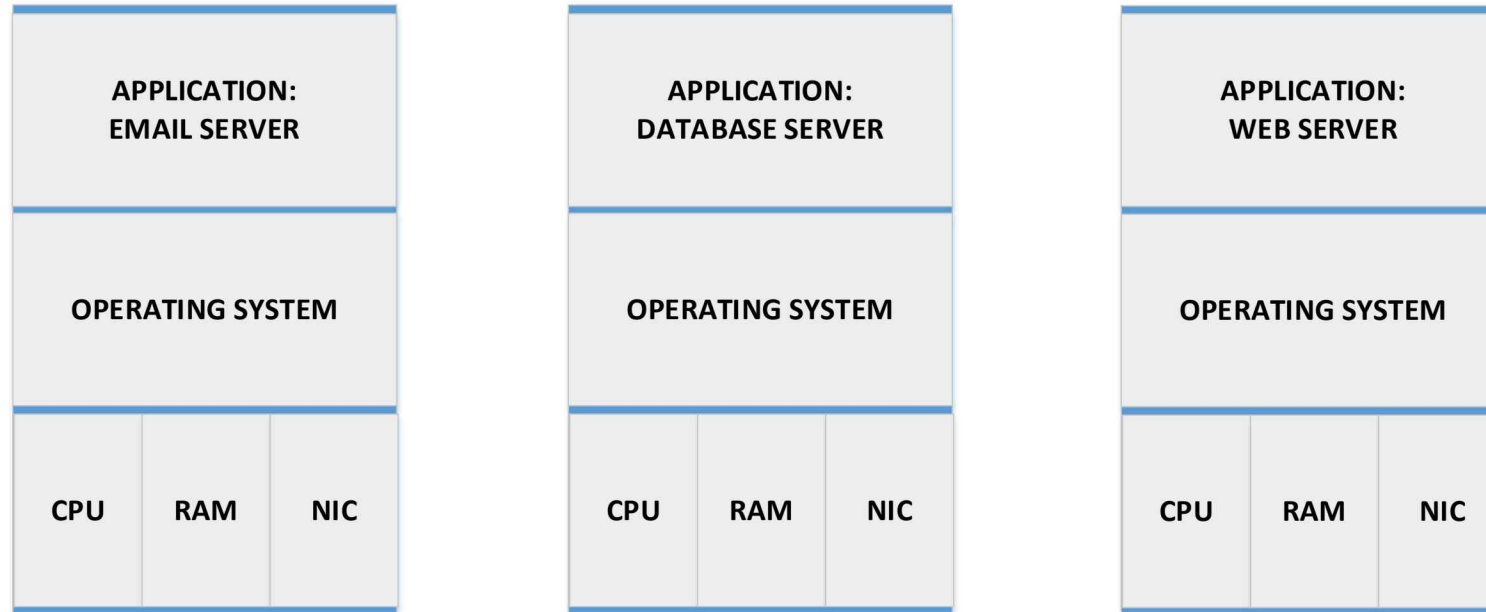


- Server virtualization is one of the main enablers of Cloud Computing
- It allows for resource pooling where multiple customers share the underlying server hardware
- Server virtualization has been around a lot longer than Cloud Computing though

Before Virtualization

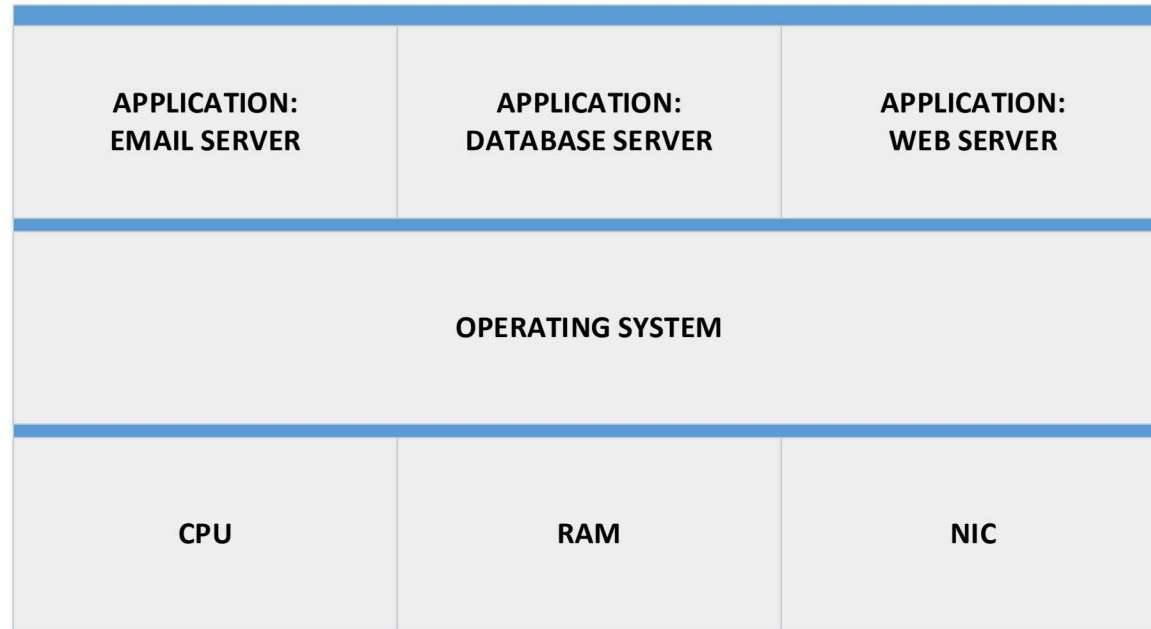


Before Virtualization



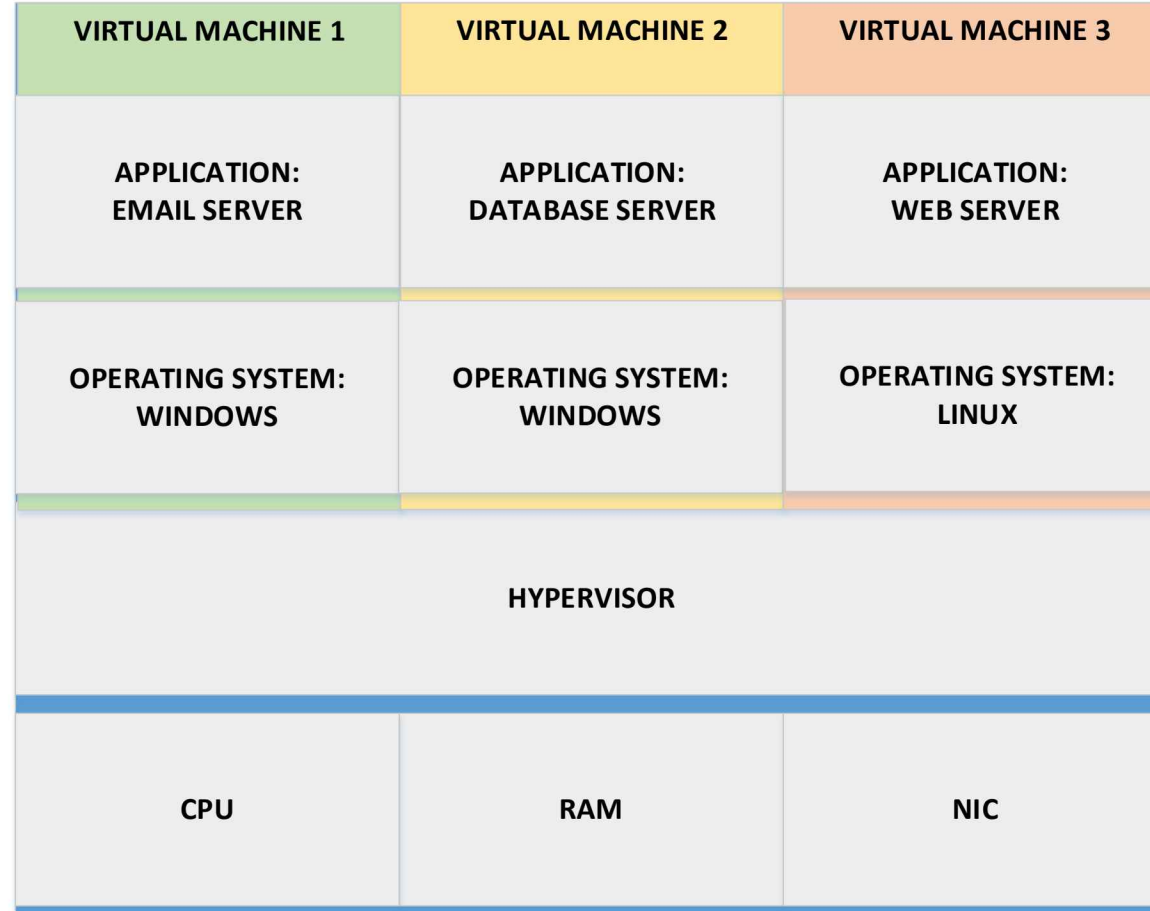
- Server utilization (CPU, RAM, NIC etc.) around 15%
- I had to pay for each separate server, and they're all using power, space and cooling

What I'd Like to Do... But Is REALLY Bad Practice



- Putting multiple applications on the same server would improve utilization
- But is very bad practice, because if I have a problem with any of my applications they will all be affected

Server Virtualization to the Rescue



Popular Type 1 (Bare Metal) Hypervisors

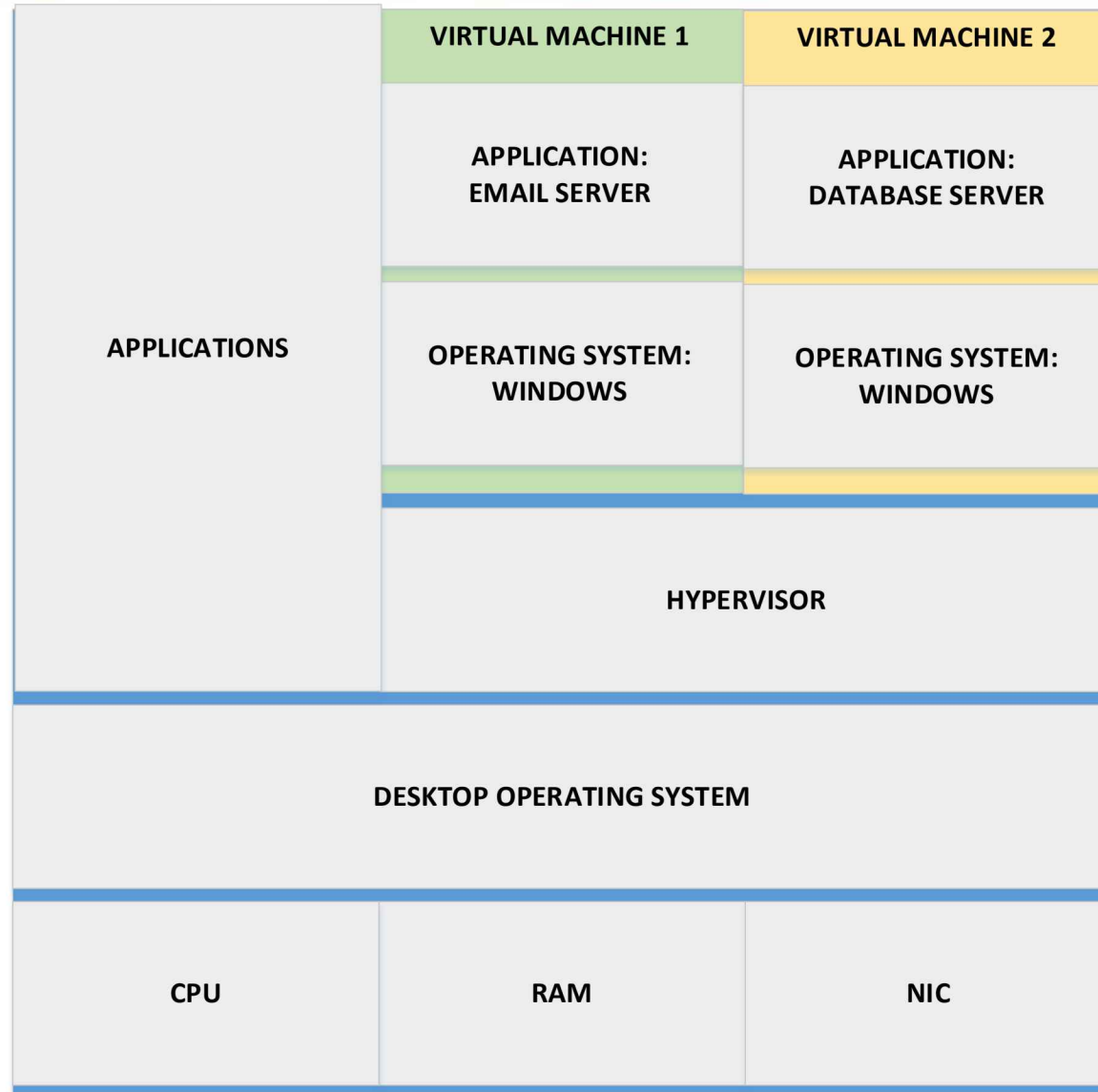
- Type 1 Hypervisors run directly on the system hardware
- VMware ESXi (part of the vSphere suite)
- Microsoft Hyper-V
- Red Hat KVM
- Oracle VM Server
- Citrix XenServer

Popular Type 2 Hypervisors



- Type 2 Hypervisors run on top of a host operating system
- VMware Workstation, Player and Fusion
- VirtualBox
- QEMU
- Parallels

Type 2 Hypervisor



Type 1 vs Type 2 Hypervisor

