Virtualisation

A virtual machine (VM) is a virtual environment that functions as a virtual computer system with its own CPU, memory, network interface, and storage, created on a physical hardware system (located off- or on-premises)

Topics

* Desktop Virtualisation
* Server Virtualisation
* Network Virtualisation
* Storage Virtualisation
* Application Virtualisation

Vendors of Virtualisation

* Vmware
* Microsoft
* Citrix

Benefits of Virtualisation

* Save money and energy
* Simplify management

Desktop virtualization architecture

Virtual - applications, guest OS (windows, linux, VMware esx.)

Physical - Host OS, Hardware

Components of virtual machines

* Configuration file
* Hard disk file(s)
* Virtual machine state file
* In-memory file

Comparison

#### Vmware workstation

* Costs more
* More host $ guest support
* Better features (snapshots, USB)
* 64-bit hosts and guests

#### Microsoft virtual pc

* Free
* Costs less

#### uses

* Development
* Testing
* Training

## Server virtualization

Software (SoftV)

Hardware (HardV)

# What is a hypervisor

A hypervisor, aso called a vm manager (vmm), is a program that allows multiple systems to share a single hardware host. Each operating system appears to have the host processor, memory, and other resources all to itself. However the hypervisor is controlling the host processor and resources, allocating what is needed to each operating system in turn making sure that guest blah blah