Week Report 2

The basics of virtualization

1. **What is virtualization?** Definition of virtualization- Replication of hardware to simulate a virtual machine inside a physical machine.

2. **Types of virtualization** Two types of virtualization, server side virtualization and client side virtualization. The difference between the two is where each take place. **Server Side Virtualization**

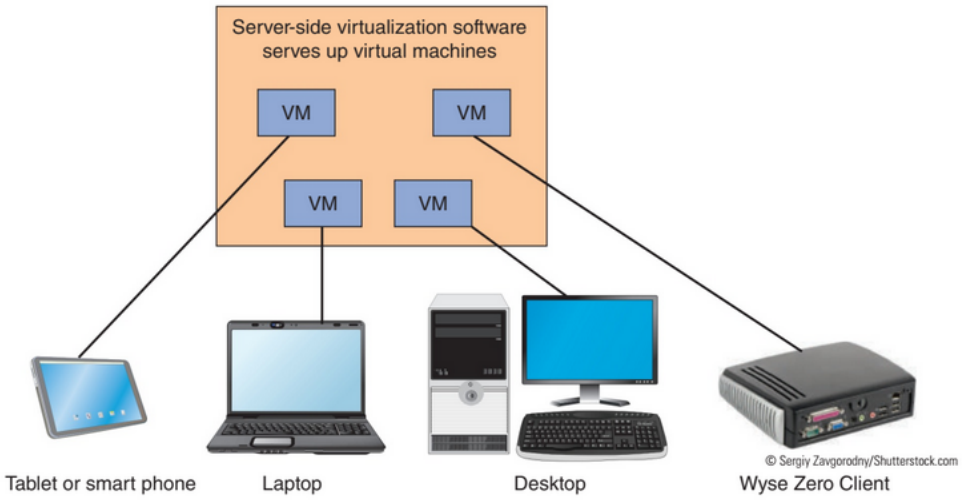
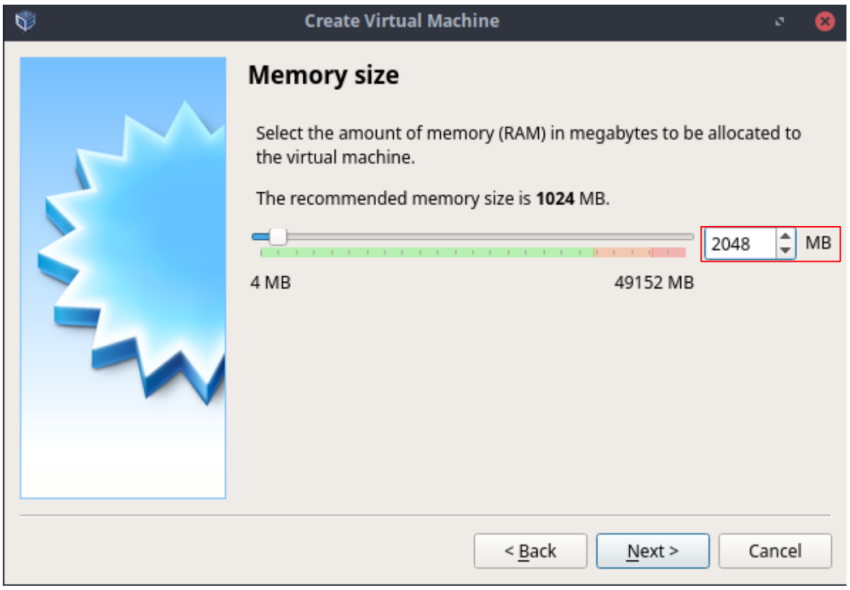


Figure 20-1 Server-side virtualization provides a virtual desktop to each user

Client Side Virtualization

Installing Ubuntu in Virtualbox

Ubuntu Desktop requires at least 2GB of RAM but if you have more than 8GB of RAM you can increase the amount of RAM you give the virtual machine without diminishing your host OS performance significantly.



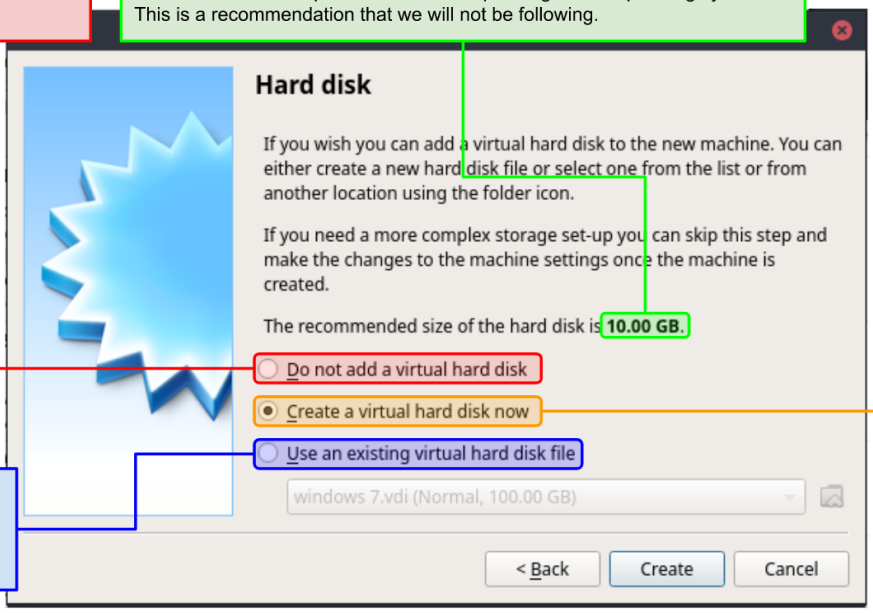
Here is a tip.

- If you plan to run only 1 virtual machine at a time and you have 8GB of RAM. You can give your vm 4GB of RAM and your PC will still be fast.
- If you have 4GB of RAM. Do not give your VM more than 2GB of RAM.

This options allows you to create the vm without a disk.

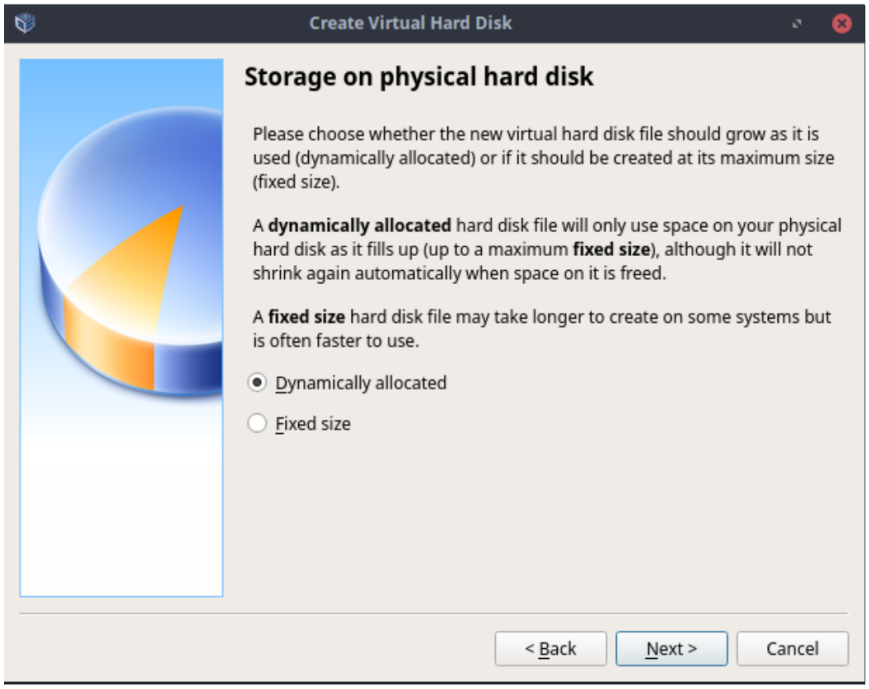
Virtualbox has some preset disk sizes depending on the operating system. This is a recommendation that we will not be following.

This option allows us to create a virtual hard disk with any size that we specify

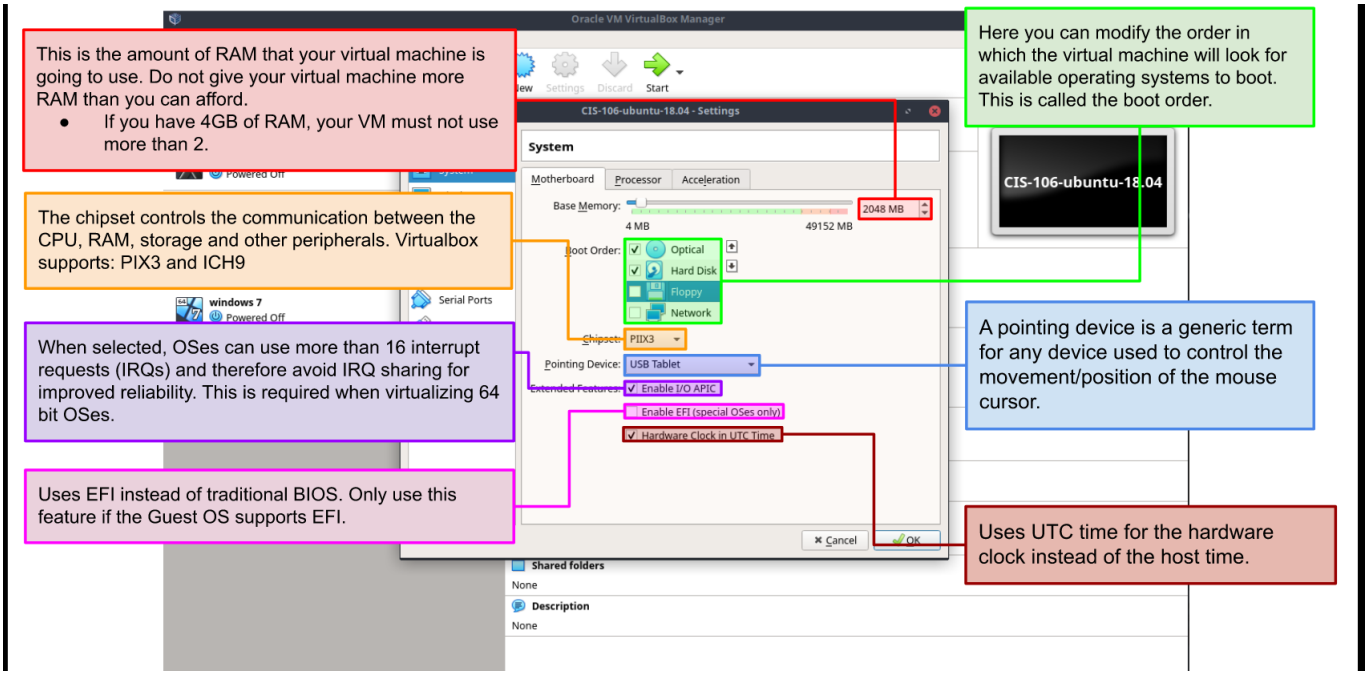


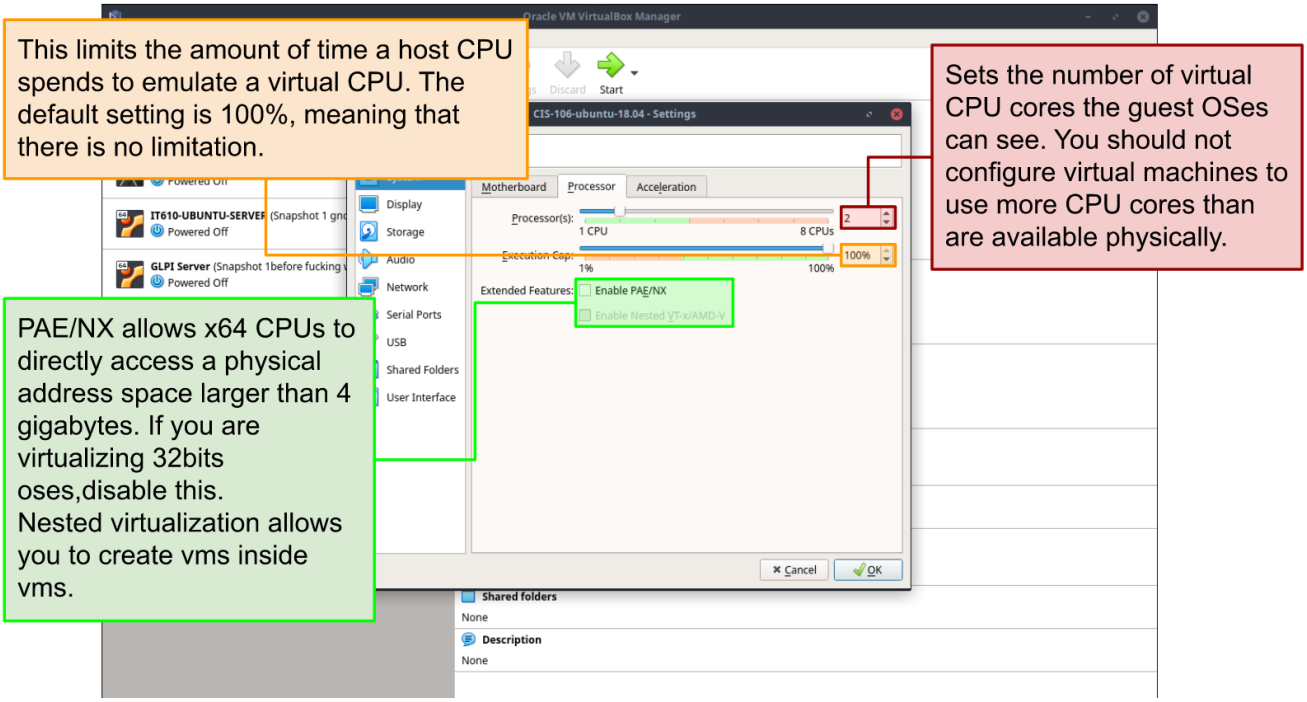
If you already have a hard disk created, you can choose it with this option.

Choosing "Dynamically Allocated"
This will initially be very small and not occupy any space for unused virtual disk sectors, but will grow every time a disk sector is written to for the first time, until the drive reaches the maximum capacity chosen



Choosing "Fixed Size"
If you create a fixed-size image, an image file will be created on your host system which has roughly the same size as the virtual disk's capacity. So, for a 10 GB disk, you will have a 10 GB file.




This limits the amount of time a host CPU spends to emulate a virtual CPU. The default setting is 100%, meaning that there is no limitation.
Sets the number of virtual CPU cores the guest OSes can see. You should not configure virtual machines to use more CPU cores than are available physically.
PAE/NX allows x64 CPUs to directly access a physical address space larger than 4 gigabytes. If you are virtualizing 32bits oses,disable this.
Nested virtualization allows you to create vms inside vms.
Oracle VM VirtualBox Manager
Discard
Start
IT610-UBUNTU-SERVER (Snapshot 1 gnc
Powered Off
GLPI Server (Snapshot 1before fucking
Powered Off
CIS-106-ubuntu-18.04 - Settings
General
System
Display
Storage
Audio
Network
Serial Ports
USB
Shared Folders
User Interface
Motherboard
Processor
Acceleration
Processor(s):
1 CPU
8 CPUs
2
Execution Cap:
1%
100%
100%
Extended Features:
Enable PAE/NX
Enable Nested VT-x/AMD-V
Cancel
OK
Shared folders
None
Description
None