

Deliverable 2

What is Virtualization?

Definition: Virtualization is a computer software program that will behave as a computer. Having this type of computer inside the user's computer will allow the user to explore the computer and work on things such as download documents, install any applications before doing it in their host machine. One of the benefits of virtualization is the user can run multiple Operating Systems on one machine. It allows applications to be tested before installing them on a host machine.

What is Virtualbox

Definition: Virtualbox is a virtualization software. It is a powerful type 2 virtualization which means, it runs on a host operating system such as Oracle and VMware Workstation Player/Pro. VirtualBox runs on Windows, Linux, Macintosh and Solaris. Virtualbox supports a large number of guest operating systems.

Installing Ubuntu in Virtualbox

The virtual box is divided into sections, such as: Name and operating system, Memory size, Hard disk, Hard disk file type, Storage on physical hard disk, File location and size.

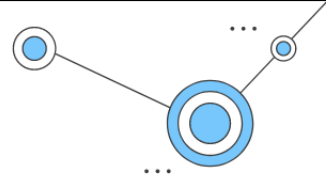
1. The user must name its virtual machine. Main folder indicated where the virtual machine is located.
2. Memory size: Ubuntu requires at least 2GB of RAM.
3. Hard disk: This option allows the user to create a virtual hard disk with any size that the user will specify.
4. Hard disk file type: VDI (VirtualBox Disk Image)

Types of virtualization

Replication of hardware to simulate a virtual machine inside a physical machine. Two general types of virtualization.

- client side virtualization:
 - It is software installed on a computer to manage virtual machines.
 - Each virtual machine has its own operating system installed.
- server side virtualization:
 - Server side provides virtual desktop to each user.

System Requirements



To install Linux and use all of its GUI tools, your computer should meet the requirements of the Distribution you choose. In this course we will be using Ubuntu 20.04 which has the following [system requirements](#)



Physical installation as the main operating system. Your PC needs to meet this requirements for a smooth experience	Virtual Machine installation as a guest operating system. Your host needs to meet this requirements for a smooth experience
<ul style="list-style-type: none"> • 2 GHz dual core processor or better • 4 GB system memory • 25 GB of free hard drive space • Internet access is helpful Either a DVD drive or a USB port for the installer media 	<ul style="list-style-type: none"> • 2 GHz quad core processor or better • 8 GB system memory • 50 GB of free hard drive space • Internet access for installation media

Hypervisor: Hypervisor is software that creates and manages virtual machines(Vms). The hypervisor allows the computer to run multiple virtual computers using the same sources as the host computer. ATM machines uses hypervisors.

Types of Hypervisors

1. Type 1: Type 1 are commonly called Bare metal or native if anything runs natively in your computer.
2. Type 2: Type 2 are the one that we know as regular virtual machines

Virtual Manager

Virtual manager support different types of virtualization such as Qemu, Zen and Xen used in Linux and windows.

Installing Endeavour OS in Virtual Manager

The first step to install Endeavour, installing all packages to run virtual-manger. Second, it is important to enable livirt service, Third, check for the status to see if it downloading properly. Fourth, it is important to re-star the computer. Fifth, after Download has been completed, star the installation as regularly you do in a virtual machine.