



## PROJET DE VIRTUALISATION : CLUSTERING DE BASCULEMENT

### GROUPE 1 :

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### PROFESSEUR :

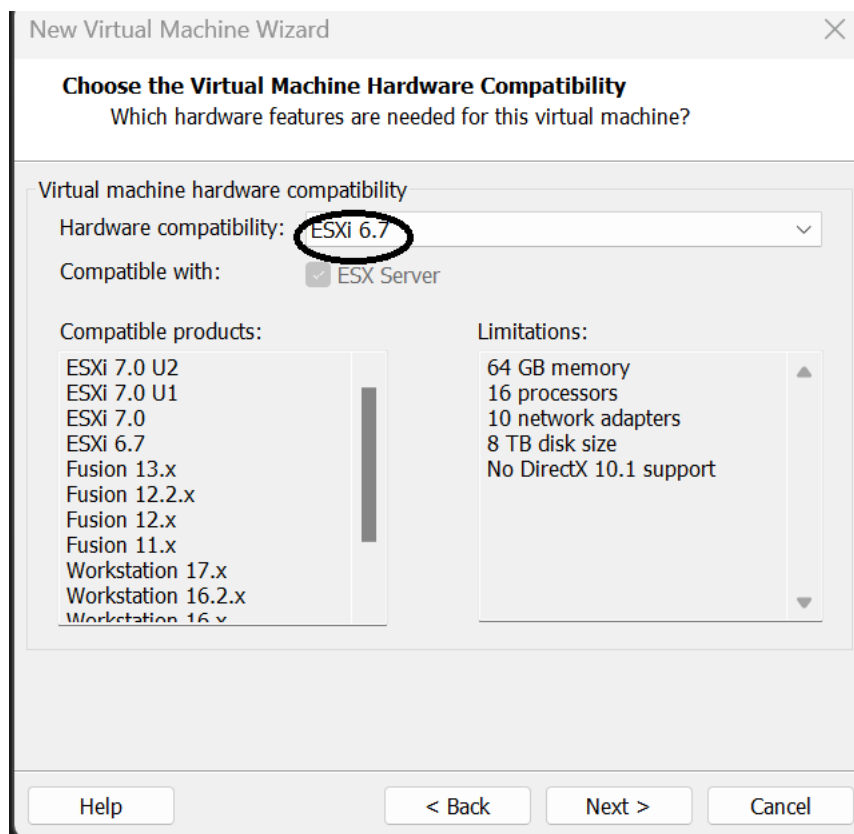
DR GOUHOBI

# VMWARE ESX

- DEFINITION

Le VMWARE ESXi est un logiciel de virtualisation de serveurs qui permet de créer plusieurs ordinateurs virtuels sur un seul serveur physique. Cela permet d'optimiser l'utilisation des ressources matérielles et de gérer les machines virtuelles de manière efficace

- INSTALLATION DE VMWARE ESXi ET CREATION D'UN SERVEUR WINDOWS 2022





### Name the Virtual Machine

What name would you like to use for this virtual machine?

Virtual machine name:

VMware ESXi 6.x

Location:

D:\another

Browse...

The default location can be changed at Edit > Preferences.

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Cancel

**Processor Configuration**

Specify the number of processors for this virtual machine.

**Processors**

Number of processors:

2



Number of cores per processor:

1



Total processor cores:

2

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Cancel

New Virtual Machine Wizard



**Memory for the Virtual Machine**

How much memory would you like to use for this virtual machine?

Specify the amount of memory allocated to this virtual machine. The memory size must be a multiple of 4 MB.

Memory for this virtual machine:  MB

64 GB -  
32 GB -  
16 GB -  
8 GB -  
4 GB -  
2 GB -  
1 GB -  
512 MB -  
256 MB -  
128 MB -  
64 MB -  
32 MB -  
16 MB -  
8 MB -  
4 MB -

Maximum recommended memory:  
13.4 GB

Recommended memory:  
4 GB

Guest OS recommended minimum:  
4 GB

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**Network Type**

What type of network do you want to add?

**Network connection**

- ☐ Use bridged networking  
Give the guest operating system direct access to an external Ethernet network. The guest must have its own IP address on the external network.
- ☒ Use network address translation (NAT)  
Give the guest operating system access to the host computer's dial-up or external Ethernet network connection using the host's IP address.
- ☐ Use host-only networking  
Connect the guest operating system to a private virtual network on the host computer.
- ☐ Do not use a network connection

[Help](#)[< Back](#)[Next >](#)[Cancel](#)

## 1. ETAPE 5 :

New Virtual Machine Wizard

**Select I/O Controller Types**  
Which SCSI controller type would you like to use for SCSI virtual disks?

I/O controller types

SCSI Controller:

☐ BusLogic (Not available for 64-bit guests)

☐ LSI Logic

☐ LSI Logic SAS

☒ Paravirtualized SCSI (Recommended)

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**Select a Disk**

Which disk do you want to use?

**Disk**☒ Create a new virtual disk

A virtual disk is composed of one or more files on the host file system, which will appear as a single hard disk to the guest operating system. Virtual disks can easily be copied or moved on the same host or between hosts.

☐ Use an existing virtual disk

Choose this option to reuse a previously configured disk.

☐ Use a physical disk (for advanced users)

Choose this option to give the virtual machine direct access to a local hard disk. Requires administrator privileges.

[Help](#)[< Back](#)[Next >](#)[Cancel](#)



**Specify Disk Capacity**

How large do you want this disk to be?

Maximum disk size (GB):

Recommended size for VMware ESXi 6.x: 40 GB

☐ Allocate all disk space now.

Allocating the full capacity can enhance performance but requires all of the physical disk space to be available right now. If you do not allocate all the space now, the virtual disk starts small and grows as you add data to it.

☐ Store virtual disk as a single file

☒ Split virtual disk into multiple files

Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.

Help

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**Specify Disk Capacity**

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Help

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Cancel

Loading ESXi installer

<ENTER>: Boot>  
Automatic boot in 4 seconds...

<SHIFT+0>: Edit boot options>

VMware ESXi 6.7.0 (VMKernel Release Build 14320388)

VMware, Inc. VMware7,1

2 x Intel(R) Core(TM) i7-6500U CPU @ 2.50GHz  
7 GiB Memory

VMKernel loaded successfully.



Welcome to the VMware ESXi 6.7.0 Installation

VMware ESXi 6.7.0 installs on most systems but only systems on VMware's Compatibility Guide are supported.

Consult the VMware Compatibility Guide at:  
<http://www.vmware.com/resources/compatibility>

Select the operation to perform.

(Esc) Cancel

(Enter) Continue

Please select a keyboard layout

Swiss French  
Swiss German  
Turkish  
US Default  
US Dvorak  
Ukrainian  
United Kingdom

Use the arrow keys to scroll.

(Esc) Cancel    (F9) Back    (Enter) Continue



Confirm Install

The installer is configured to **install** ESXi 6.7.0 on:  
mpx.vmhba0:C0:T0:L0.

Warning: This disk will be repartitioned.

(Esc) Cancel

(F9) Back

(F11) Install



VMware ESXi 6.7.0 (VMKernel Release Build 14320388)

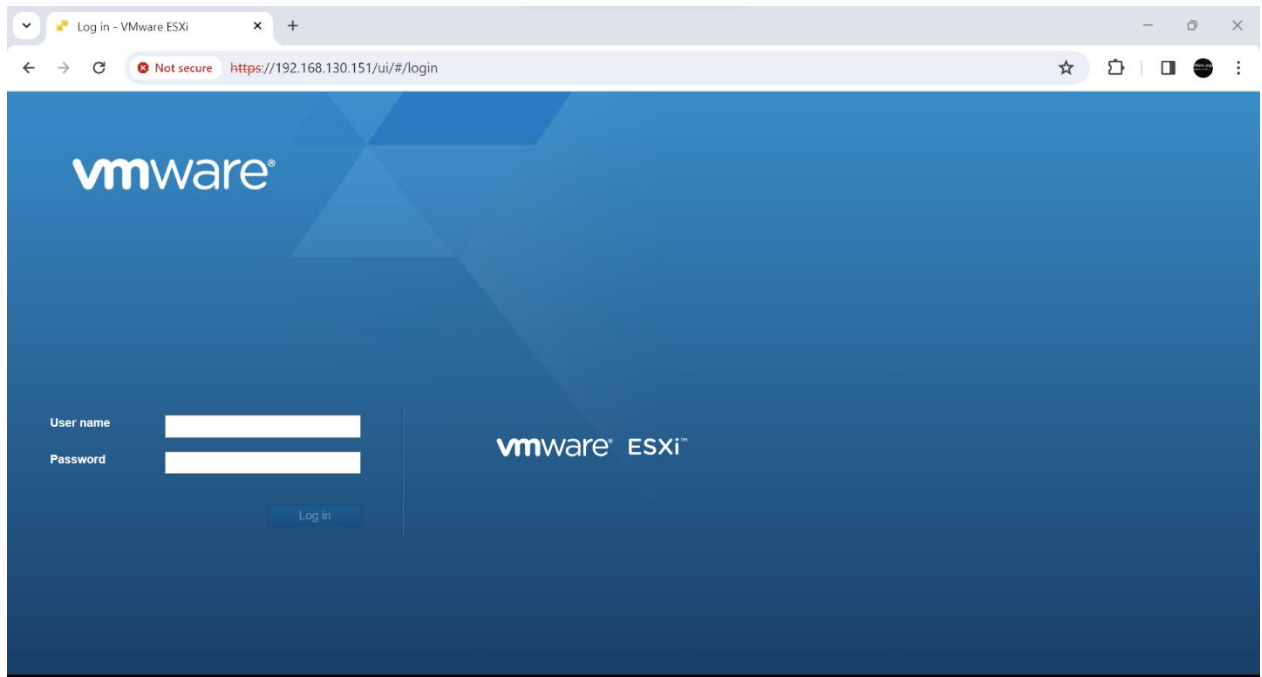
VMware, Inc. VMware7,1

2 x Intel(R) Core(TM) i7-6500U CPU @ 2.50GHz  
7 GiB Memory

To manage this host go to:  
<http://192.168.130.151/> (DHCP)  
[http://\[fe80::20c:29ff:fe42:d8fc1\]/](http://[fe80::20c:29ff:fe42:d8fc1]/) (STATIC)

<F2> Customize System/View Logs

<F12> Shut Down/Restart



localhost.localdomain - VMware

Not secure https://192.168.130.151/ui/#/host

root@192.168.130.151 | Help | Search

vmware ESXi

localhost.localdomain

Host

Virtual Machines0

Storage1

Networking1

Get vCenter Server

Create/Register VM

Shut down

Reboot

Refresh

Actions

localhost.localdomain

Version: 6.7.0 Update 3 (Build 14320388)

State: Normal (not connected to any vCenter Server)

Uptime: 0 days

CPU

FREE: 5 GHz

USED: 151 MHz

CAPACITY: 5.2 GHz

MEMORY

FREE: 5.76 GB

USED: 1.19 GB

CAPACITY: 6.96 GB

STORAGE

FREE: 31.09 GB

USED: 1.41 GB

CAPACITY: 32.5 GB

You are currently using ESXi in evaluation mode. This license will expire in 60 days.

Hardware

Manufacturer: VMware, Inc.

Model: VMware7,1

Configuration

Image profile: ESXi-6.7.0-20190802001-standard (VMware, Inc.)

Recent tasks

Task	Target	Initiator	Queued	Started	Result	Completed
Update Options	localhost.localdomain	root	02/08/2024 13:54:30	02/08/2024 13:54:30	Completed successfully	02/08/2024 13:54:30
Auto Start Power On	localhost.localdomain	root	02/08/2024 13:51:24	02/08/2024 13:51:24	Completed successfully	02/08/2024 13:51:24

localhost.localdomain - VMware

Not securehttps://192.168.130.151/ui/#/host/vms

root@192.168.130.151 | Help | Search

Navigator

Host

Manage

Monitor

Virtual Machines0

Storage1

Networking1

localhost.localdomain - Virtual Machines

Create / Register VM | Console | Power on | Power off | Suspend | Refresh | Actions

Virtual machine

Status

Used space

Guest OS

Host name

Host CPU

Host memory

No virtual machines

Quick filters...No items to display

Recent tasks

Task	Target	Initiator	Queued	Started	Result	Completed
Update Options	localhost.localdomain	root	02/08/2024 13:54:30	02/08/2024 13:54:30	Completed successfully	02/08/2024 13:54:30
Auto Start Power On	localhost.localdomain	root	02/08/2024 13:51:24	02/08/2024 13:51:24	Completed successfully	02/08/2024 13:51:24

✓ 1 Select creation type

2 Select a name and guest OS

3 Select storage

4 Customize settings

5 Ready to complete

## Select creation type

How would you like to create a Virtual Machine?

Create a new virtual machine

Deploy a virtual machine from an OVF or OVA file

Register an existing virtual machine

This option guides you through creating a new virtual machine. You will be able to customize processors, memory, network connections, and storage. You will need to install a guest operating system after creation.

vmware®

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Finish

Cancel

New virtual machine

1 Select creation type

2 Select a name and guest OS

3 Select storage

4 Customize settings

5 Ready to complete

vmware

Select a name and guest OS

Specify a unique name and OS

Name

Enter a name for the virtual machine.

Virtual machine names can contain up to 80 characters and they must be unique within each ESXi instance.

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

Compatibility

ESXi 6.7 virtual machine

Guest OS family

Select Guest OS Family

Guest OS version

Select Guest OS Version

Back

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Finish

Cancel

New virtual machine - upbmachine (ESXi 6.7 virtual machine)

1 Select creation type

2 Select a name and guest OS

3 Select storage

4 Customize settings

5 Ready to complete

## Select a name and guest OS

Specify a unique name and OS

Name

upbmachine

Virtual machine names can contain up to 80 characters and they must be unique within each ESXi instance.

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

Compatibility

ESXi 6.7 virtual machine

Guest OS family

Select Guest OS Family

Select Guest OS Family

Linux

Mac OS

Other

Windows

Guest OS version

Back

Next

Finish

Cancel

New virtual machine - upbmachine (ESXi 6.7 virtual machine)

1 Select creation type

2 Select a name and guest OS

3 Select storage

4 Customize settings

5 Ready to complete

Select a name and guest OS

Specify a unique name and OS

Name

upbmachine

Virtual machine names can contain up to 80 characters.

Identifying the guest operating system here at this step is optional.

Compatibility

Guest OS family

Guest OS version

Select Guest OS version

Microsoft MS-DOS

Microsoft Small Business Server 2003

Microsoft Windows 10 (32-bit)

Microsoft Windows 10 (64-bit)

Microsoft Windows 2000

Microsoft Windows 2000 Professional

Microsoft Windows 2000 Server

Microsoft Windows 3.1

Microsoft Windows 7 (32-bit)

Microsoft Windows 7 (64-bit)

Microsoft Windows 8.x (32-bit)

Microsoft Windows 8.x (64-bit)

Microsoft Windows 95

Microsoft Windows 98

Microsoft Windows NT

Microsoft Windows Server 2003 (32-bit)

Microsoft Windows Server 2003 (64-bit)

Microsoft Windows Server 2003 Datacenter (32-bit)

Microsoft Windows Server 2003 Datacenter (64-bit)

Select Guest OS Version

Back

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Finish

Cancel



New virtual machine - upbmachine (ESXi 6.7 virtual machine)

✓ 1 Select creation type

✓ 2 Select a name and guest OS

✓ 3 Select storage

4 Customize settings

5 Ready to complete

Select storage

Select the storage type and datastore

Standard

Persistent Memory

Select a datastore for the virtual machine's configuration files and all of its' virtual disks.

Name	Capacity	Free	Type	Thin pro...	Access
datastore1	32.5 GB	31.09 GB	VMFS6	Supported	Single

1 items

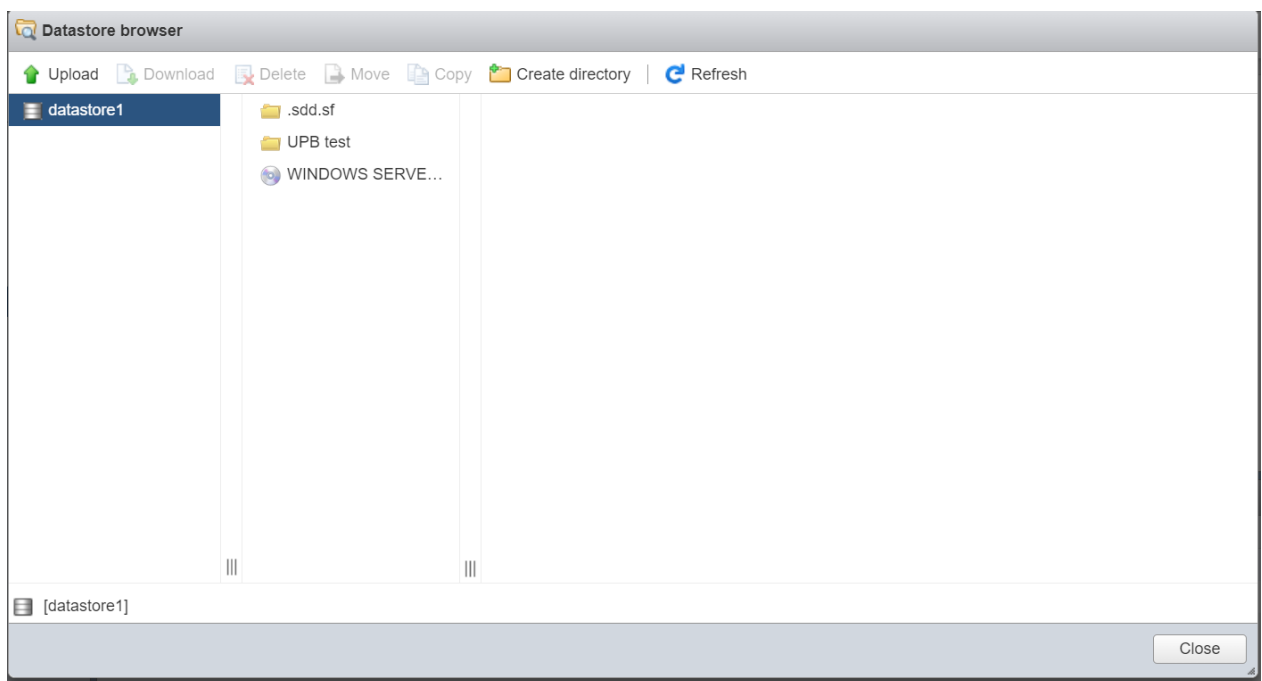
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Finish

Cancel



localhost.localdomain - VMware

Not securehttps://192.168.130.140/ui/#/host/vms/1

root@192.168.130.140 | Help | Search

Host  
Manage  
Monitor


Virtual Machines  
1  
WINDOWS SERVER 22  
Monitor  
More VMs...

Storage  
1  
datastore1  
Monitor  
More storage...

Networking  
1  
VM Network  
Monitor  
More networks...

WINDOWS SERVER 22

ConsoleMonitorPower onPower offSuspendRestartEditRefreshActions



WINDOWS SERVER 22

Guest OSMicrosoft Windows Server 2016 or later (6...)

CompatibilityESXi 6.7 virtual machine

VMware ToolsNo

CPU2

Memory4 GB

CPU0 MHz

MEMORY0 B

STORAGE40 GB

General Information

Networking

VMware ToolsVMware Tools is not installed. Actions

Storage1 disk

NotesEdit notes

Hardware Configuration

CPU2 vCPUs

Memory4 GB

Hard disk 140 GB

USB controllerUSB 3.0

Recent tasks

Task	Target	Initiator	Queued	Started	Result	Completed
Reconfig VM	UPB test	root	02/09/2024 14:10:15	02/09/2024 14:10:15	Completed successfully	02/09/2024 14:10:16
Auto Start Power On	localhost.localdomain	root	02/09/2024 14:07:44	02/09/2024 14:07:44	Completed successfully	02/09/2024 14:07:44
Reconfig VM	UPB test	root	02/09/2024 14:14:40	02/09/2024 14:14:40	Completed successfully	02/09/2024 14:14:40

- CONCLUSION

En raison de sa facilité de gestion et de sa mise en place VMWARE ESXi est le logiciel par excellence pour pouvoir créer des machines virtuelles après lui viennent le HYPER-V et le PROXMOX