



- vesxnumber -> vesxnumber : 40Gb/s (max, generally 40Gb/s)
- vesxnumber -> vesxnumber (on same pESX) : 10Gb/s (max, generally 1Gb/s)
- vesxnumber -> vesxnumber (on different pESX) : 1Gb/s (max, generally 500Mb/s)
- Concluded.

### 1.3.2 vswitch 10 minutes

Configure your vswitch (Vswitch0) with a limited bandwidth (100Mo).

Retry iperf to evaluate the bandwidth.

*Change your vswitch (Vswitch0) to 1Go/s.*

## 1.4 VM advanced

### 1.4.1 Migration

Create a tinyVM named tinyVMmigXX (XX = student number) on vsanDatastoreXX. We will now migrate our virtual machine from one server to another. First, suspend your virtual machine.

The in-memory data of your VM has been stored in a file located in the VM's directory on the vSanDataStore. Find this file

When you resume your VM, this file is read and loaded into memory, and then execution is resumed.

We will resume the VM on another server. The vSanDataStore is shared among multiple vESXi hosts

Find another server that shares your vSanDatastore (check the server assignment section)

Connect to this server and resume your VM

You have just successfully migrated your first VM!

### 1.4.2 Snapshot

Create a restore a snapshot of your tinyVM read this (<https://www.informatiweb-pro.net/virtualisation/vmware/vmware-esxi-6-7-creer-des-instantanes-d-une-machine.html>)

From IHM, open the tinyVM console, create the directory "TOTO". Create a snapshot 1. Then on the console create "TUTU".

Restore the VM state before the creation of the directory TUTU

## 1.5 VM creation

### 1.4.1 New VM from scratch 10 minutes

Finally, Install a new VM Linux from scratch through UI. Download the Iso file and install, start and ping the Linux Core 5.4. File can be found here (<http://menaud.fr/Cours/Cloud/TP/PS1/ISOLinux/Core-5.4.iso>)  
OS:Linux 32b ; RAM : 64Mb ; Disk : 20Mb

## 2 Around the command line

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All this practical session will be realized from SSH and command line. You can use esxcli commands and vim-cmd. First, read these tutorials : esxcli (<http://www.menaud.fr/Cours/Cloud/Subjects/PS1-ESXCLI.html>) and vim-cmd (<http://www.menaud.fr/Cours/Cloud/Subjects/DocPS1/Quick.pdf>)

A command list can be found here (<http://www.menaud.fr/Cours/Cloud/Subjects/DocPS1/cmd-esxi.html>) or here (<https://wiki.maxcorp.org/listes-des-commandes-utiles-sous-esx-esxi-terminal/>)

### 2.1 First command

#### 2.1.1 SSH on vESX (as previously) 5 minutes

Activate (if not) on the vESX the SSH server (with the GUI)

Connect by SSH on your vESX

## 2.1.2 From command line, reboot your ESXi **5 minutes**

Don't forget to change your esx state to maintenance mode

## 2.1.3 Around VM life cycle **25 minutes**

Find the correct command line to list all VM on your ESXi

Note on a paper all VM VMWare ID.

Start, Stop VM from the command line

Unregister a VM. Verify from GUI that the VM is no visible.

Register the VM previously unregistered. What's happen with the VMWare ID.

## 2.1.4 Snapshot **10 minutes**

<https://vuptime.io/post/2015-02-26-play-vm-snapshots-esxi-command-line-tools/>

Same question before but we use the command line. Create and restart from a snapshot a VM

```
vmsvc/snapshot.get vmid vim-cmd vmsvc/snapshot.create vmid "titi" vim-cmd
```

```
vmsvc/snapshot.create vmid "toto"
```

revert to a previous snapshot