

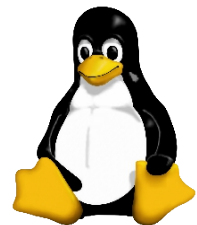
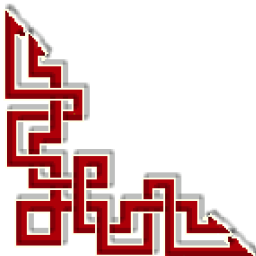
RF-232

Micronator

VirtualBox-4.2.6

&

SME-8.0



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Avertissement

Bien que nous utilisons ici un vocabulaire issu des techniques informatiques, nous ne prétendons nullement à la précision technique de tous nos propos dans ce domaine.

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I- Introduction

1. Description générale

Ce document présente la marche à suivre pour installer **VirtualBox** sur un poste **Windows XP/SP-3** et ensuite créer un serveur virtuel **SME-8.0**.

Le but ultime est d'installer **MediaWiki** sur le serveur virtuel **SME-8.0** et d'y ajouter l'extension **Collection**. Ensuite créer une machine virtuelle **Ubuntu** qui s'occupera exclusivement de la génération des documents en format **PDF** pour l'extension **Collection**, installée sur le serveur **SME-8.0**.

2. Note au lecteur

* Les captures d'écrans ne sont que des références.

** Les informations écrites ont préséance sur celles retrouvées dans les captures d'écrans. Veiller à se référer aux différents tableaux lorsque ceux-ci sont présents.

3. Conventions

Toutes les commandes à entrer sur le serveur sont en **gras**. Les affichages à surveiller sont en **rouge** ou en **bleu**.

```
# ping 192.168.1.149
192.168.1.149 is alive
#
```

Les liens de référence internet sont en **bleu** et ceux intra-document en **bleu**.



Manipulation, truc ou ruse pour se tirer d'embarras.



Une recommandation ou astuce.



Une note.



Une étape, note ou procédure à surveiller.



Paragraphe non-complété ou non-vérifié.



Un site de téléchargement **FTP**.



Commande sur une seule ligne. Le **PDF** pourrait avoir ajouté un **CR/LF** et ainsi séparé la ligne en deux.

4. Lexique

VirtualBox

Référence: http://fr.wikipedia.org/wiki/Oracle_VM_VirtualBox

Oracle VM VirtualBox (anciennement **VirtualBox**) est un logiciel libre de virtualisation publié par Oracle.

En tant qu'hôte, il est disponible sur les systèmes d'exploitation **Linux** (en 32 et 64 bits; en **.deb** , en **.rpm** et en **source**), **Mac OS X**, **Solaris** et **Windows**.

VM

Référence: http://fr.wikipedia.org/wiki/Machine_virtuelle_%28informatique%29

Le sens originel de **machine virtuelle** (ou *Virtual Machine* (VM) en anglais) est la création de plusieurs environnements d'exécution sur un seul ordinateur, dont chacun émule l'ordinateur hôte. Cela fournit à chaque utilisateur l'illusion de disposer d'un ordinateur complet alors que chaque machine virtuelle est isolée des autres.

hôte

Une machine hôte est un **PC** qui roule un logiciel de virtualisation et qui contient un répertoire pour emmagasiner les **VM**.

invité

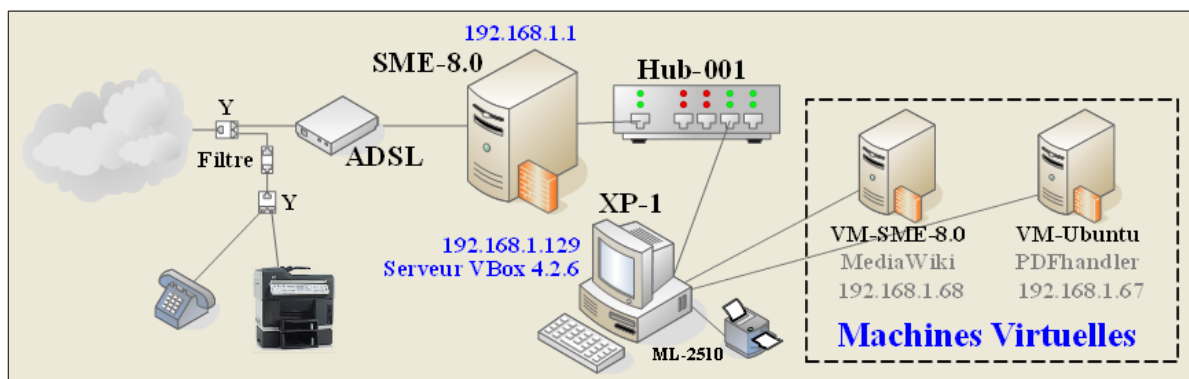
Un invité est une **VM** qui roule sous un hôte.

clac

Clic sur le bouton droit de la souris.

II- À savoir

1. Diagramme réseau



2. Matériel utilisé

2.1. Station XP-1

Windows XP/SP3.

C'est sur cette station que sera installé **VirtualBox-4.2.6**. On utilisera aussi cette station pour tous les tests.

Adresse: **192.168.1.129**.

2.2. Serveur virtuel MediaWiki

Nous utiliserons pour cette documentation un serveur virtuel **Linux SME-8.0** qui roulera sous **VirtualBox-4.2.6** et qui sera configuré en mode serveur uniquement.

Adresse: **192.168.1.68**.

Nom réel du serveur: **mediawiki**.

Le nom complet du serveur sera: **mediawiki.vm-micronator.org**.

2.2.1. Primary

I-bay principale qui contiendra le site la documentation de **git** dans le répertoire **http://192.168.1.68/doc** et **WikiMedia** dans le répertoire **http://192.168.1.68/wiki**.

2.3. Serveur virtuel Ubuntu

Nous utiliserons un serveur virtuel **Ubuntu** qui roulera sous **VirtualBox-4.2.6**. Ce serveur s'occupera exclusivement de la génération des documents en format **PDF** pour l'extension **Collection**, installée sur le serveur **mediawiki**.

Adresse: **192.168.1.67**.

Nom réel du serveur: **pdfhandler**.

Le nom complet du serveur sera: **pdfhandler.vm-micronator.org**.

2.4. Serveur SME-8.0

Serveur **passerelle** pour connexion à Internet.

Serveur **DHCP** pour tout le réseau.

Adresse: **192.168.1.1**.

Nom réel du serveur: **dorjee**.

Le nom complet du serveur est: **dorjee.micronator.org**.

3. Nom du domaine

Le nom du domaine est **vm-micronator.org**. Ce domaine est local et n'est enregistré chez aucun registraire.

4. Groupe de travail

Le nom du Groupe de travail est: **RF232**.

5. Usagers

5.1. admin

Usager administrateur des serveurs SME.

5.2. michelandre

L'usager qui a tous les droits sur toutes les machines et qui a surtout les droits de gestion du réseau.

6. Logiciels

6.1. Station Windows

Version: Windows XP Professionnel/SP-3, français.

Référence: <http://www.microsoft.com/fr-fr/>

6.2. VirtualBox

Version: 4.2.6.

Référence: <https://www.virtualbox.org/>

6.3. Serveur SME

Version: 8.0.

Référence: http://wiki.contribs.org/Main_Page/fr

6.4. git

Version 1.8.0.2 du 2012-12-10.

Référence: <http://code.google.com/p/git-core/downloads/list>

6.5. MediaWiki

1.21alpha.

Référence: <https://gerrit.wikimedia.org/r/p/mediawiki/core.git>

6.6. PuTTY

Téléchargement: <http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>

6.7. WinSCP

Téléchargement: <http://winscp.net/eng/translations.php>

III- Prérequis

1. VirtualBox

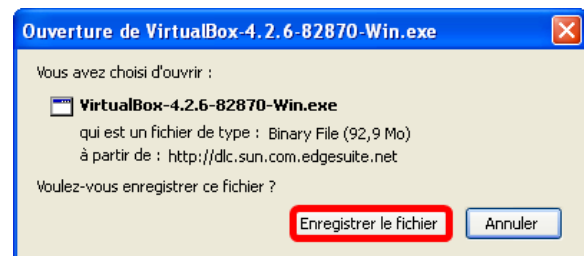
1.1. Téléchargement

On se rend à l'adresse suivante pour le téléchargement: <https://www.virtualbox.org/wiki/Downloads>

Cliquer **x86/amd64**.

- VirtualBox platform packages. The binaries are released under the terms of the GPL version 2.
 - VirtualBox 4.2.6 for Windows hosts => **x86/amd64**
 - VirtualBox 4.2.6 for OS X hosts => x86/amd64
 - VirtualBox 4.2.6 for Linux hosts
 - VirtualBox 4.2.6 for Solaris hosts => x86/amd64

Enregistrer le fichier.



1.1.1. Somme de contrôle

Sur la même page, on clique **MD5** pour voir la somme de contrôle. On peut noter cette **somme de contrôle** pour vérifier, plus tard, l'intégrité du téléchargement.

- See the [changelog](#) for what has changed. You might want to compare the
- => **SHA256** checksums or the
 - => **MD5** checksums

```
0aa92357d10c65e8f33f0733cdc371b4 *VirtualBox-4.2.6-82870-SunOS.tar.gz
9760f0335bc7cd82927c5885b31f43a7 *VirtualBox-4.2.6-82870-Win.exe
d680aeb3b4379b8281527aeb012b2df5 *VirtualBox-4.2.6.tar.bz2
```

2. Somme de contrôle

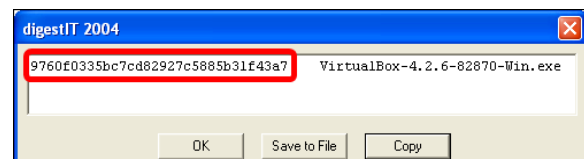
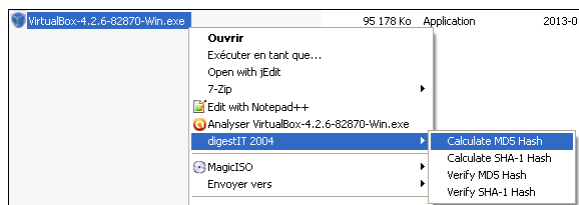


Il est préférable de vérifier la **somme de contrôle** du fichier avant l'installation.

On peut descendre et installer **DigestIT 2004** pour XP pour calculer la **somme de contrôle**. Le site de téléchargement de **DigestIT 2004** est:


http://www.colonywest.us/index.php?option=com_content&view=article&id=46&Itemid=56.

Pour calculer la **somme de contrôle**: **clac sur le fichier | DigestIT 2004 | Calculate MD5 Hash**.



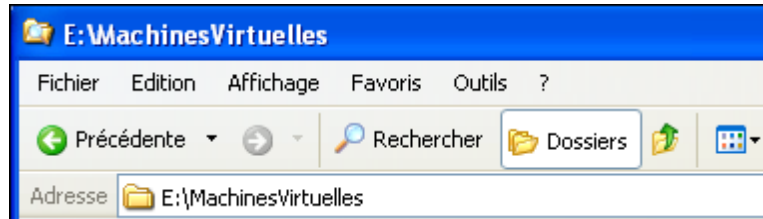
La **somme de contrôle** correspond.

3. Répertoire pour les machines virtuelles

 On peut créer un répertoire qui contiendra les machines virtuelles qu'on créera plus tard. Il est préférable de créer ce répertoire dans une partition qui ne servira qu'à contenir des machines virtuelles ou mieux encore sur un autre disque que celui du système d'exploitation.

Sur la machine hôte **XP-1**, **E:\MachinesVirtuelles** est un répertoire sur un disque **USB** externe. Ce répertoire contiendra nos **VM** sur ce disque et ainsi, il sera plus facile de transporter ces **VM** sur un autre poste de travail, voir même sur un serveur Linux.

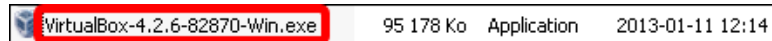
Le répertoire peut être n'importe où pourvu qu'il y ait assez d'espace libre pour contenir nos futures **VM**.



IV- Installation de VirtualBox

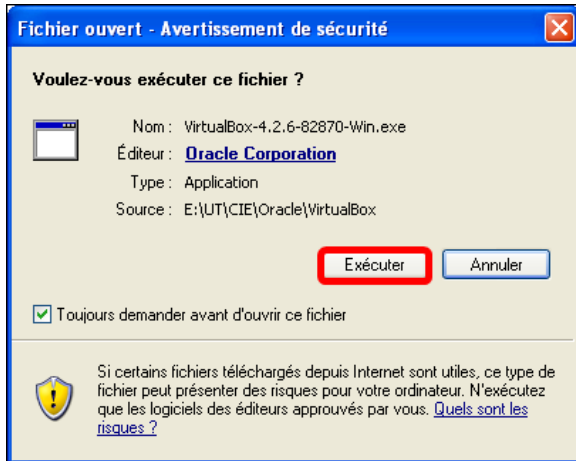
1. Lancement

On se rend dans le répertoire des téléchargements et on double-clique sur **VirtualBox-4.2.6-82870-Win.exe**.

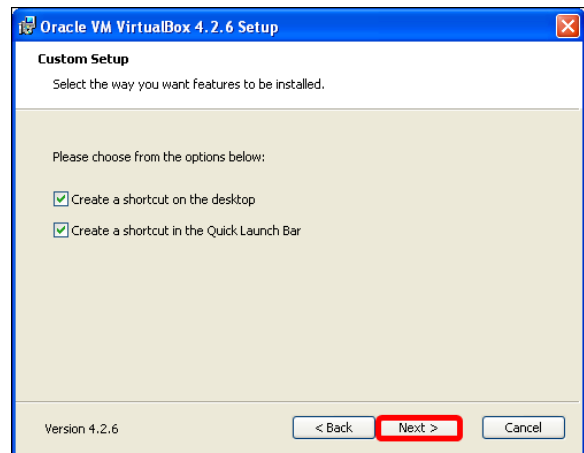
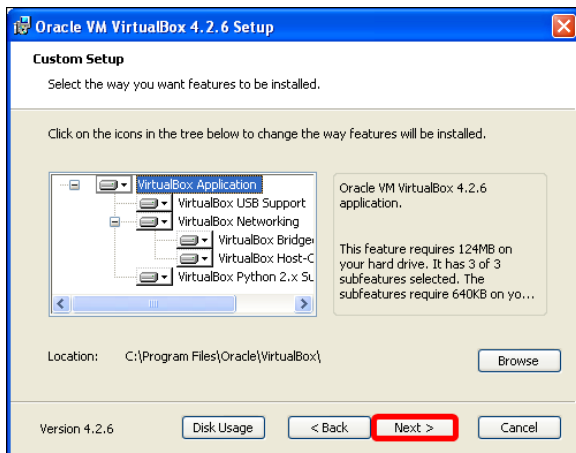


2. Installation

Exécuter | Next >.

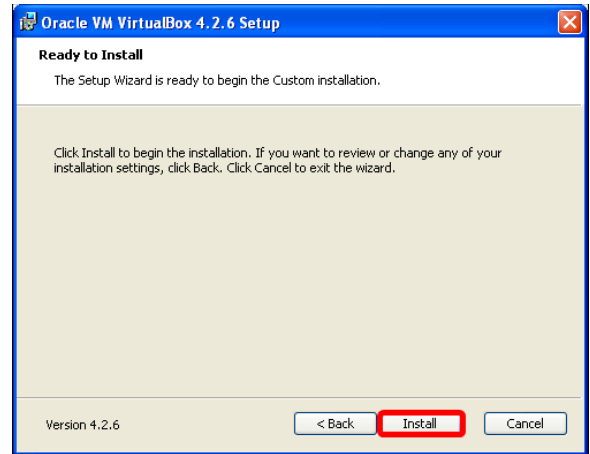
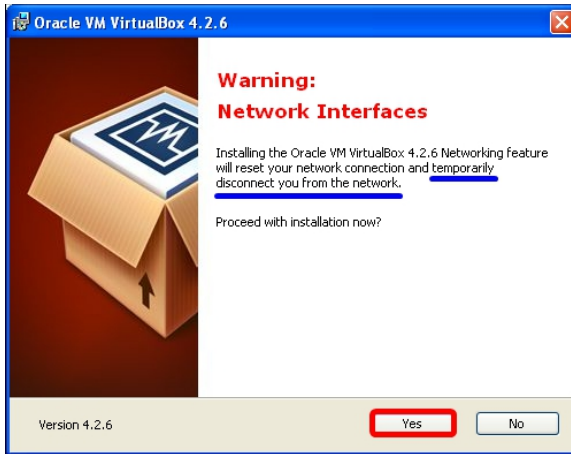


Next > | Next >.

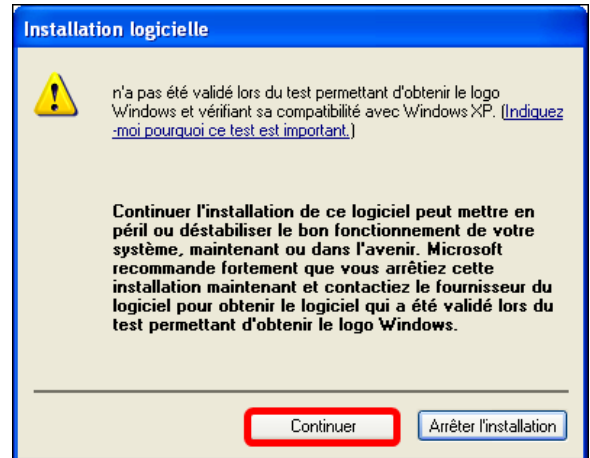
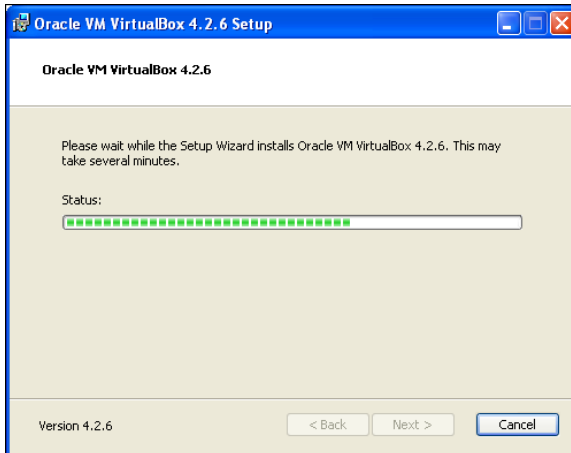


Installation de VirtualBox

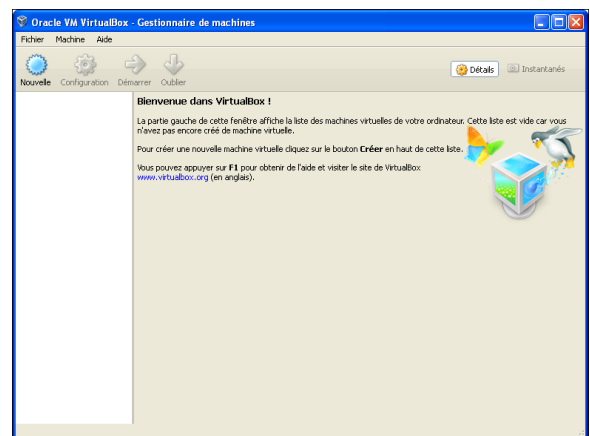
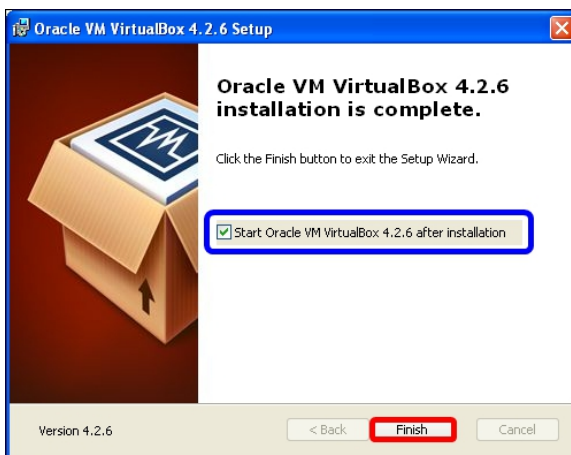
Yes | Install.



Continuer (à répéter à plusieurs reprises).



Finish.

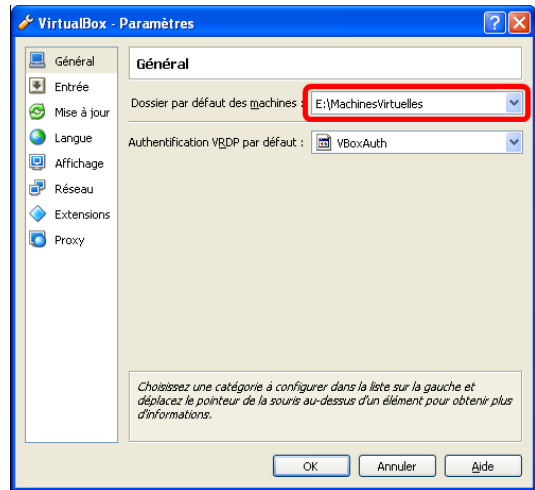
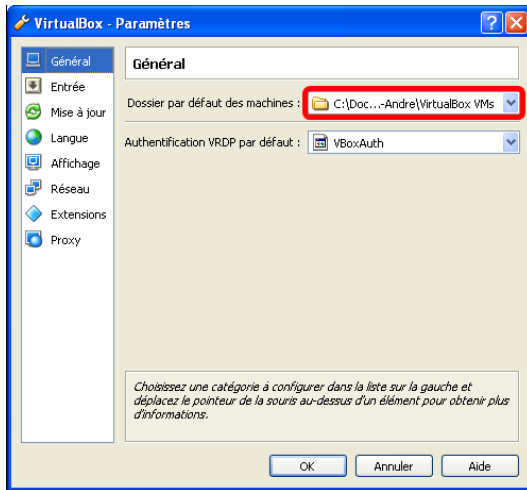


V- Configuration

1. Paramètres

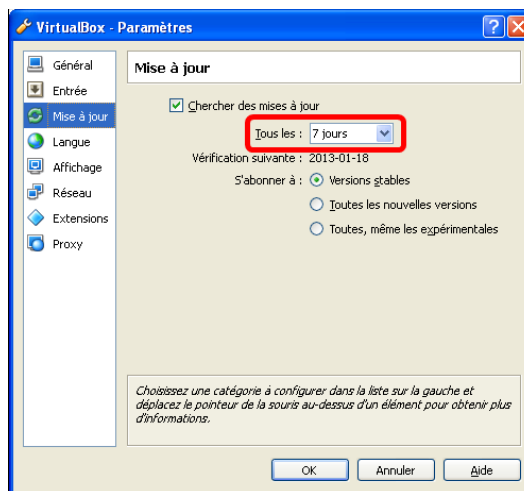
1.1. Dossier par défaut des machines

Fichier | Paramètres... | Général | Dossier par défaut des machines: | Autre... | E:\MachinesVirtuelles | OK.



1.2. Mise à jour

Tous les: 7 jours | OK.



VI- Création d'une machine virtuelle

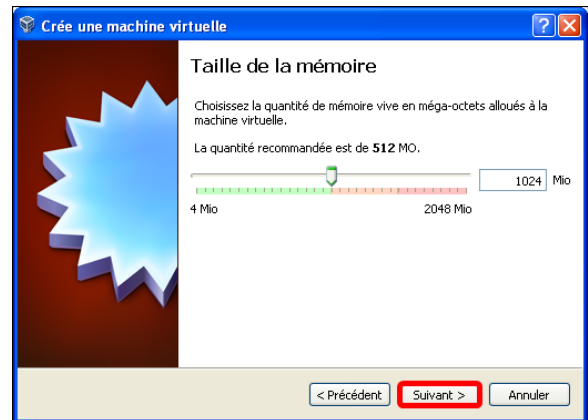
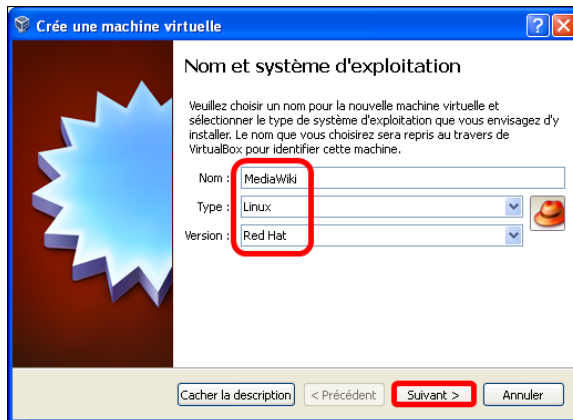
1. Description

Nous allons créer une machine virtuelle **SME-8.0**.

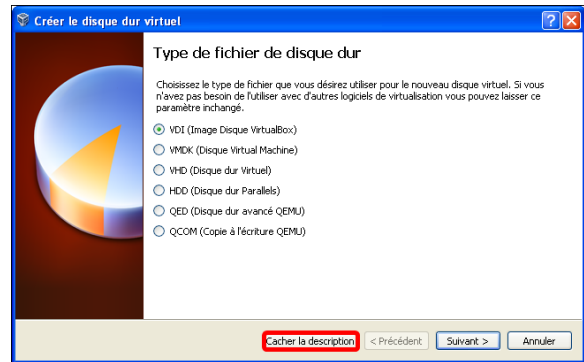
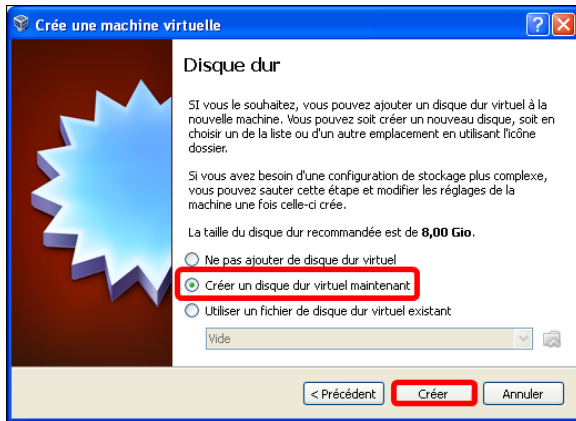
- Nom du serveur virtuel: **mediawiki**.
- Le nom complet du serveur sera: **mediawiki.vm-micronator.org**.
- Mémoire: **1024 MB**.
- Disque: **5 GB**.
- IP: **192.168.1.68**.

2. Création

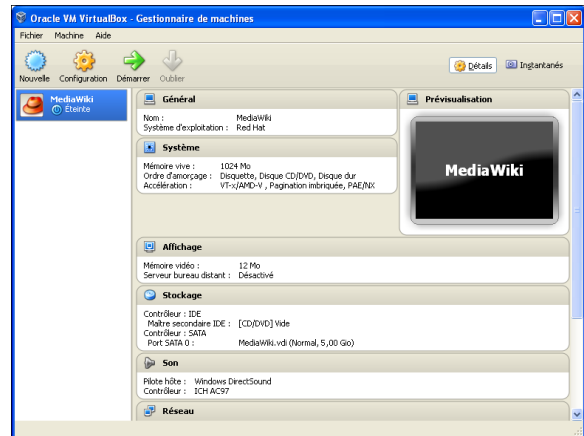
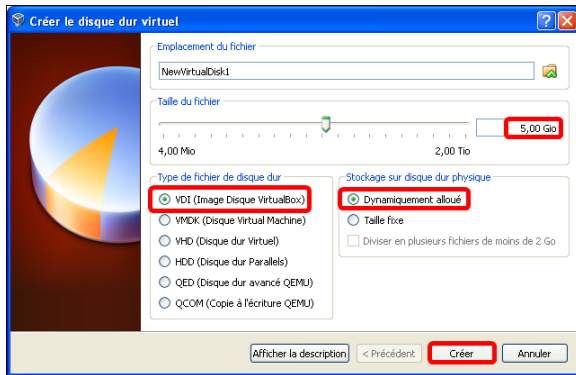
Machine | Nouvelle | **Nom: MediaWiki** | **Type: Linux** | **Version: RedHat** | Suivant > | **1024** | Suivant >.



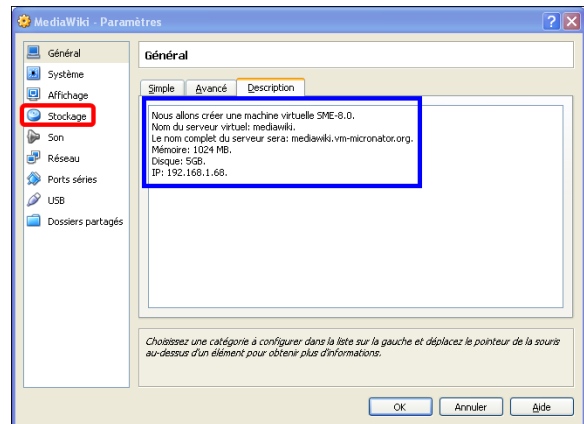
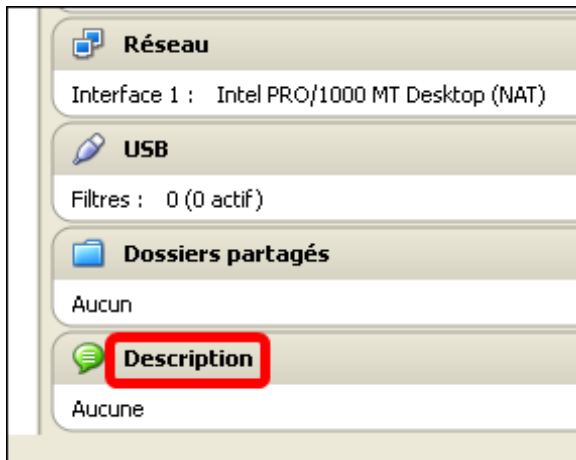
Créer un disque dur virtuel maintenant | Créer | Cacher la description.



5 Gio | VDI (Images Disque VirtualBox) | Dynamiquement alloué | Créer.



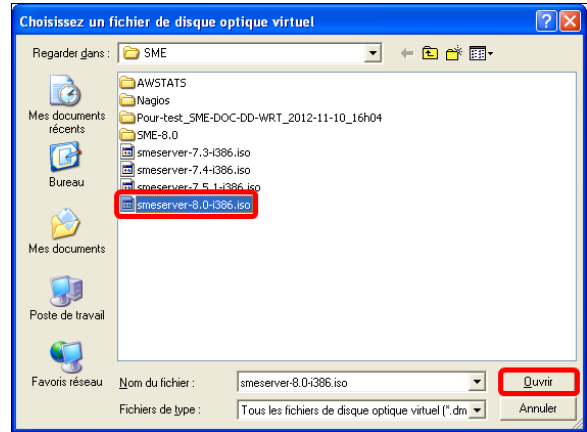
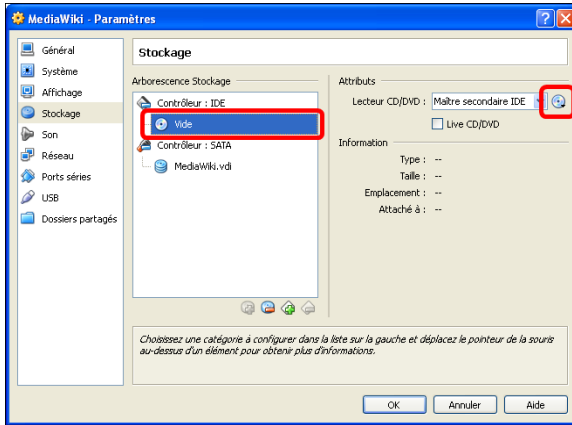
Description | Entrer une description | ensuite cliquer Stockage.



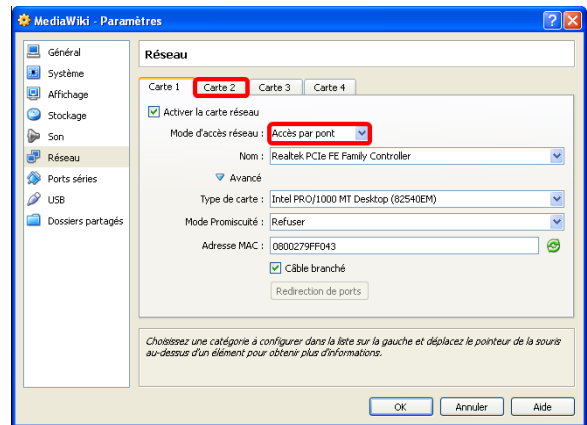
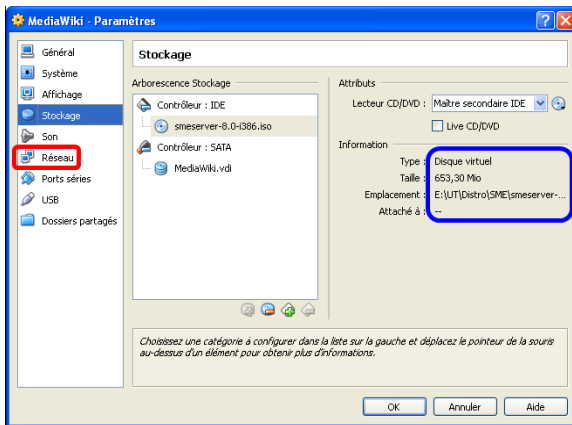
Création d'une machine virtuelle

Nous allons relier le fichier ISO de SME-8.0 au lecteur CD/DVD de la machine virtuelle. Lorsque celle-ci démarrera, elle s'amorcera avec le CD de SME-8.0.

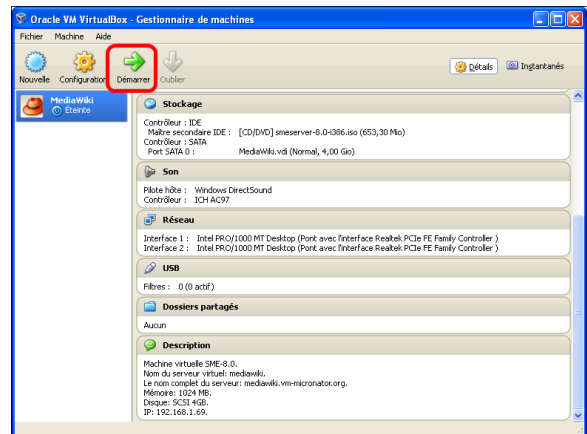
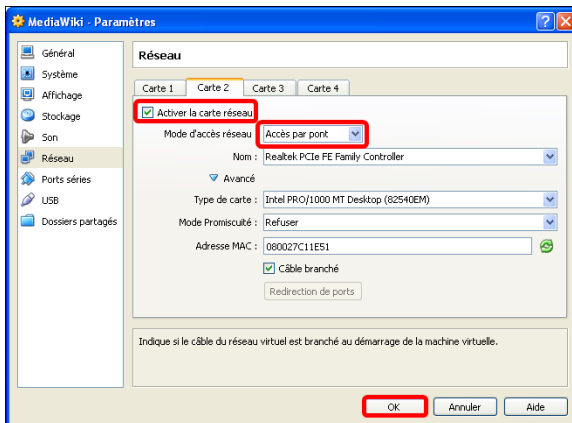
Arborescence Stockage choisir Vide | **Attributs Lecteur CD/DVD** cliquer l'icône du CD | **Choisissez un fichier de disque optique virtuel** | naviguer jusqu'au fichier ISO de SME-8.0, sélectionner-le | Ouvrir.



Au retour, cliquer Réseau | Choisir Accès par pont pour la Carte 1 | cliquer Carte 2 pour accéder à la deuxième carte réseau. (Par défaut, SME nécessite absolument 2 cartes réseau).



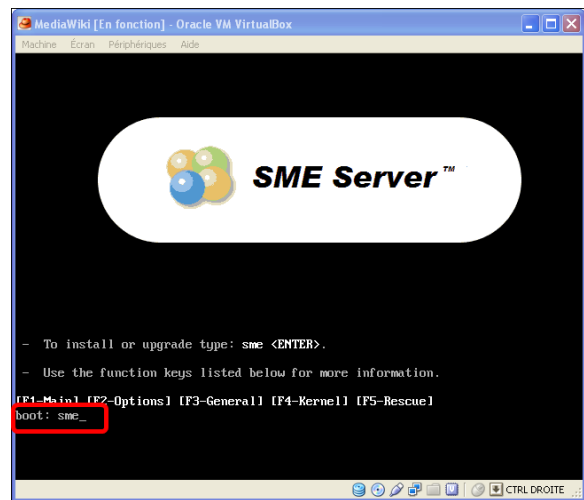
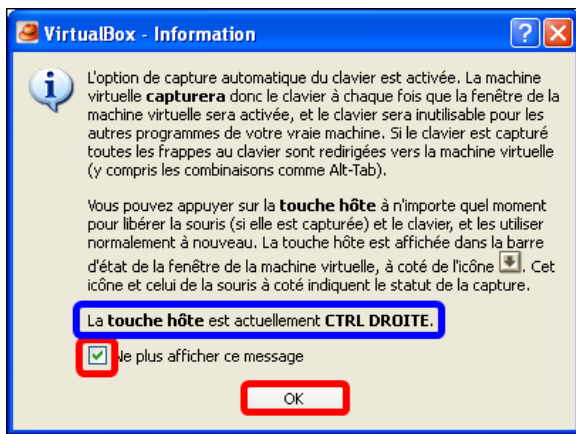
Cocher Activer la carte réseau | Accès par pont | OK | Démarrer pour amorcer la machine virtuelle.



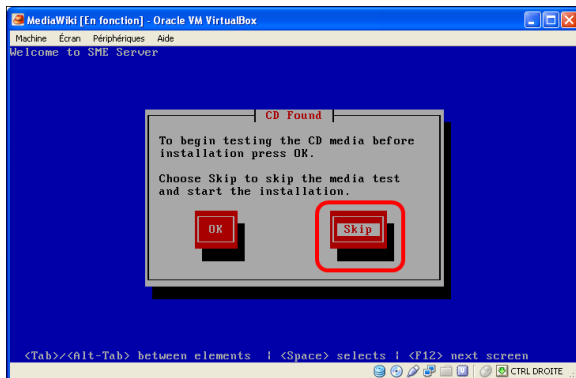
VII- Installation du système d'exploitation

Si la VM n'est pas déjà lancée, menu **Machine** | **Démarrer** ou sélectionner la VM | *cliquer l'icône de démarrage*.

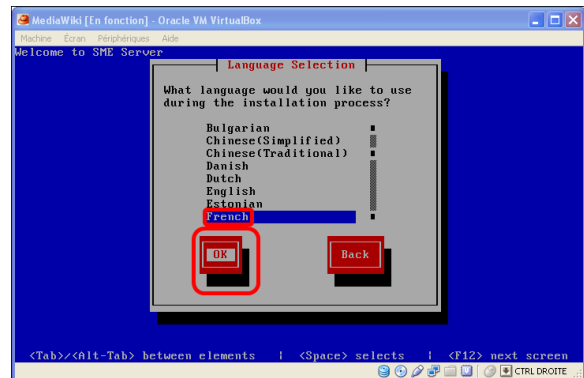
Un message d'information s'affiche, cocher **Ne plus afficher ce message** et cliquer **OK**. Pour débiter l'installation, entrer **sme** et faire **RETOUR**.



Skip |

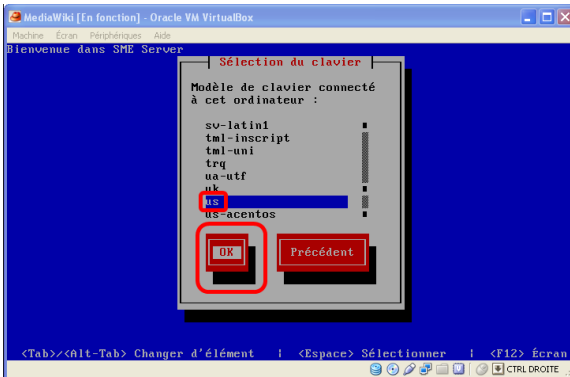


French | **OK**.

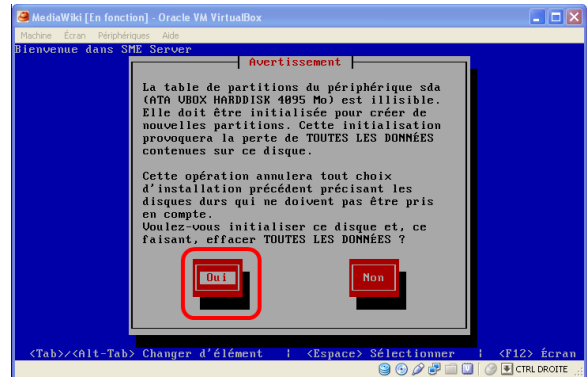


Installation du système d'exploitation

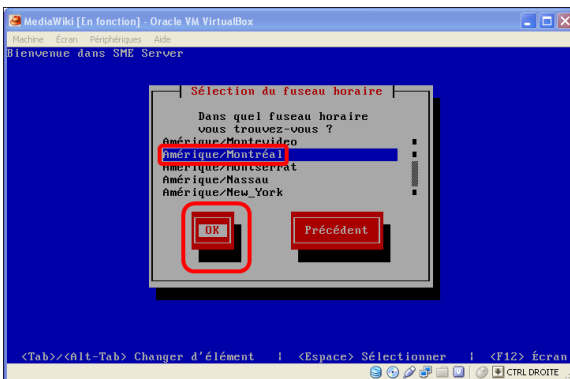
us | OK



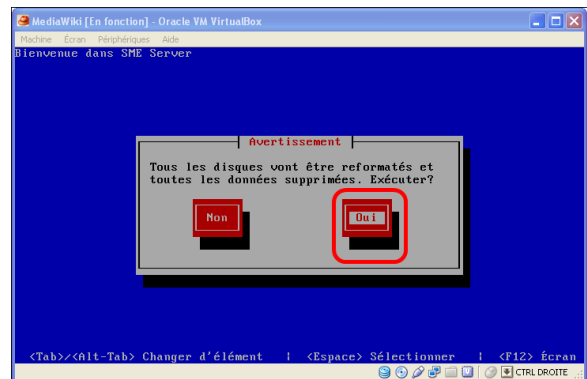
Oui.



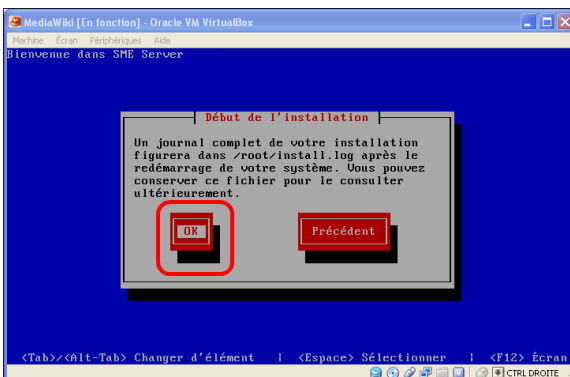
Amérique/Montréal | OK



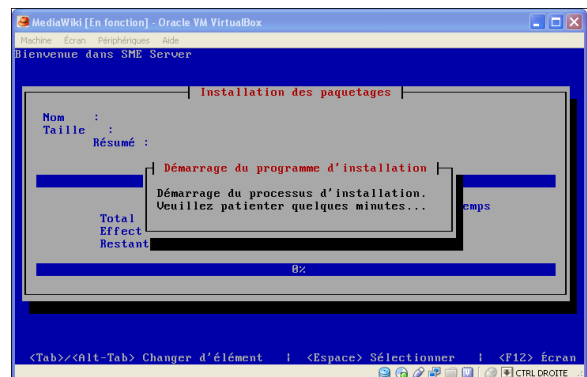
Oui.



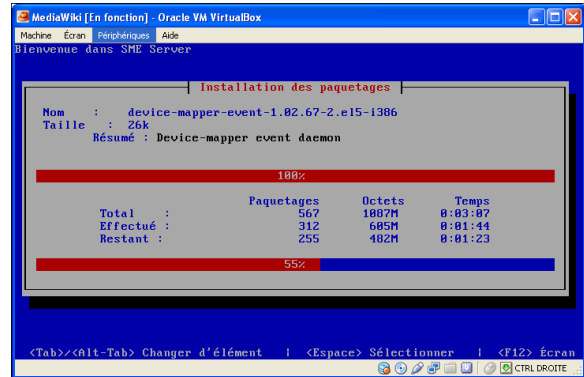
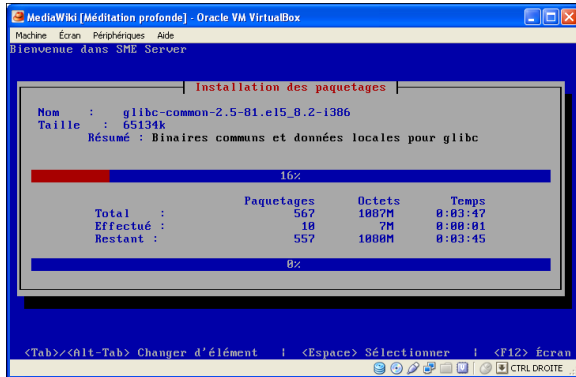
OK.



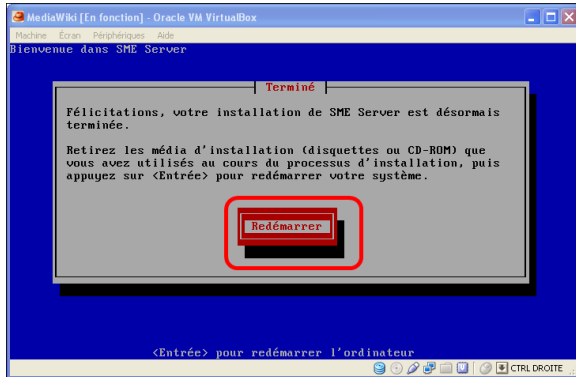
L'installation débute.



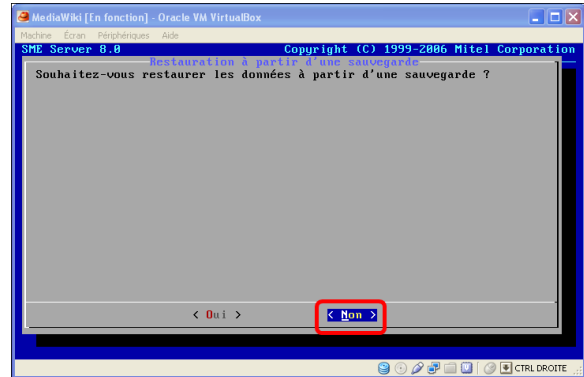
Les paquetages s'installent.



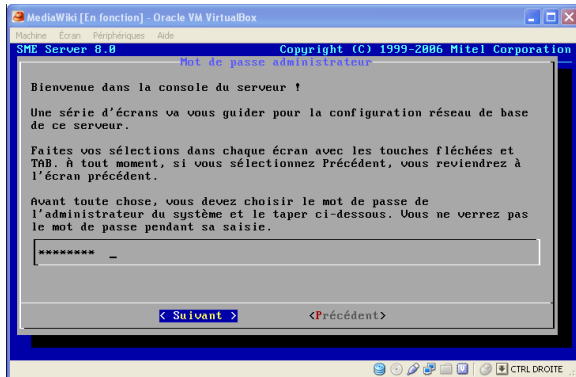
Redémarrer



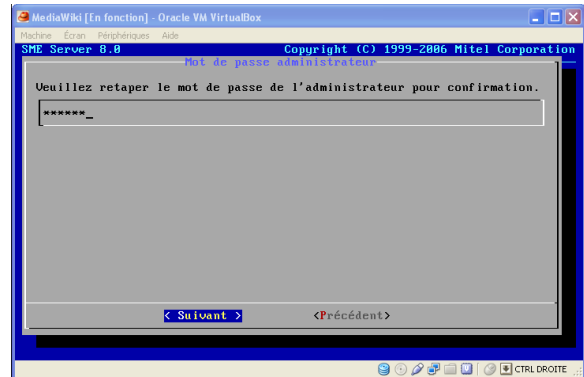
Non



Entrer un mot de passe pour admin | Suivant

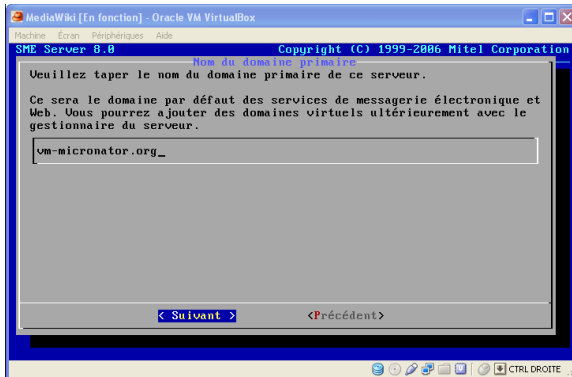


Retaper le mot de passe | Suivant.

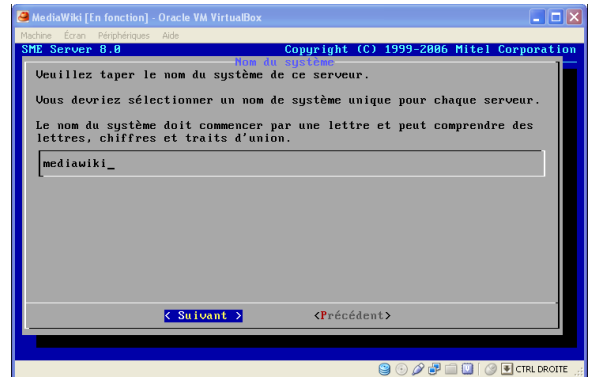


Installation du système d'exploitation

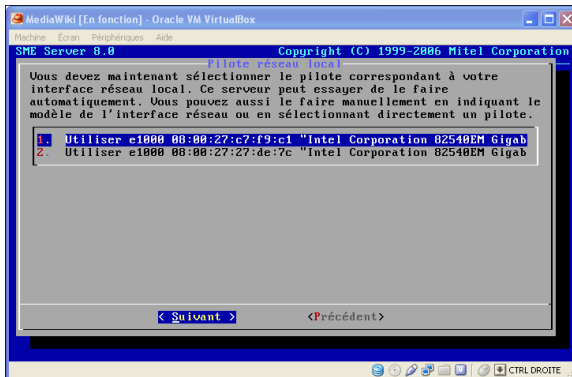
Entrer le nom du domaine: **vm-micronator.org**



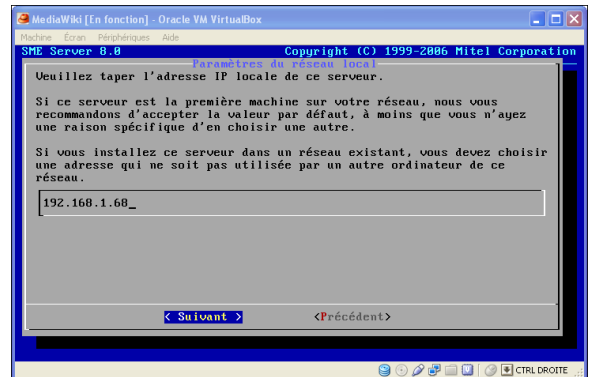
Entrer le nom du système **mediawiki**.



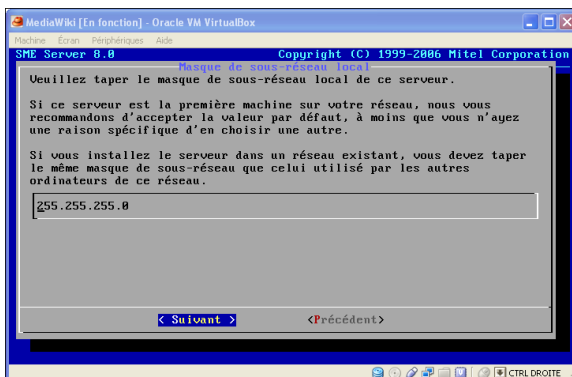
Suivant.



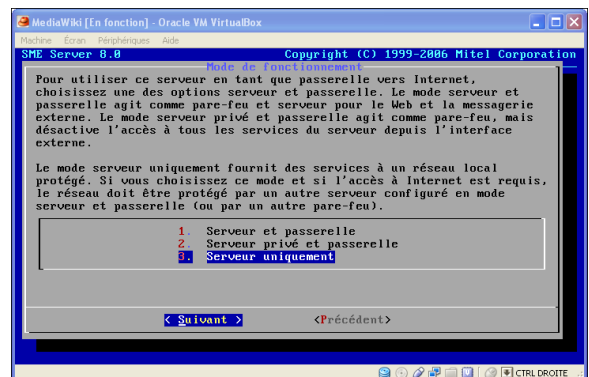
Entrer l'adresse **IP** locale du serveur: **192.168.1.68**



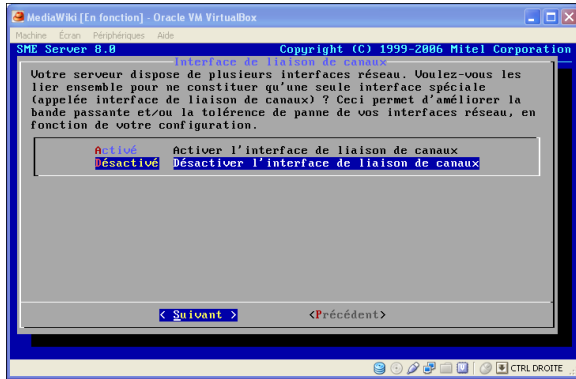
Le masque est bon, Suivant.



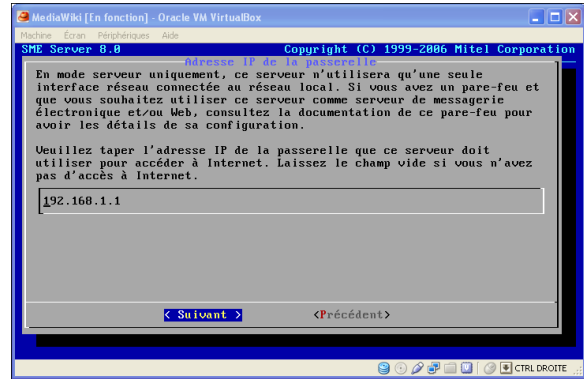
Serveur uniquement | Suivant.



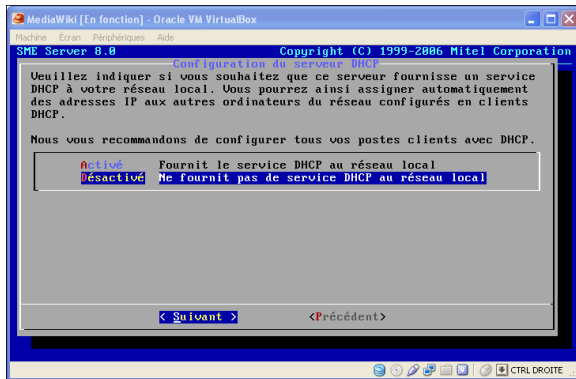
Désactivé | Suivant.



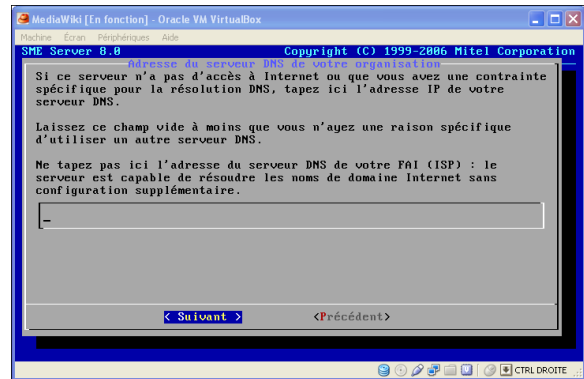
Adresse IP de la passerelle: 192.168.1.1



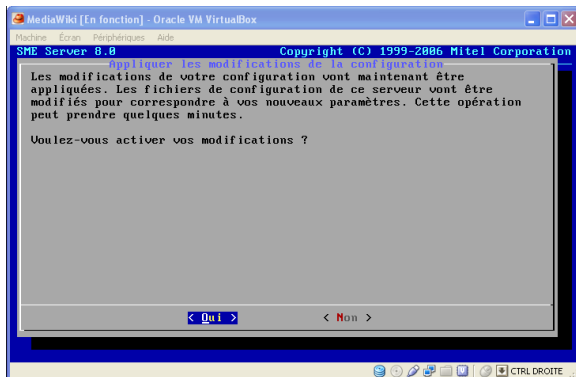
Désactivé | Suivant.



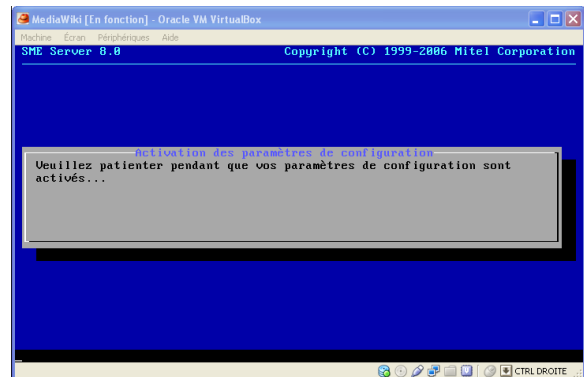
Suivant.



Oui.



Être patient.



Installation du système d'exploitation

Le serveur réamorçe.

```
MediaWiki [En fonction] - Oracle VM VirtualBox
MediaWiki [En fonction] - 2016
Arrêt de l'enregistreur chronologique du noyau : [ OK ]
Arrêt de l'enregistreur chronologique du système : [ OK ]
Démarrage de l'enregistreur chronologique du système : [ OK ]
Démarrage de l'enregistreur chronologique du noyau : [ OK ]
Démarrage de rai8monitor : [ OK ]
Enabling IP masquerading: done
Activation de l'interface loopback : [ OK ]
Activation de l'interface eth0 : [ OK ]
Démarrage de irqbalance : [ OK ]
Démarrage de cron8 : [ OK ]
Démarrage du démon acpi : [ OK ]
Démarrage de ldap : [ OK ]
Waiting for slapd to startup
Running bootstrap-ldap-save [ OK ]
Démarrage de mysqld : [ OK ]
Démarrage de dnscache : [ OK ]
Démarrage de imap : [ OK ]
Démarrage de imaps : [ OK ]
Démarrage de pop3 : [ OK ]
Démarrage de pop3s : [ OK ]
Démarrage de tinymce : [ OK ]
Démarrage de lpd : [ OK ]
Démarrage de clamd : [ OK ]
Démarrage de freshclam : [ OK ]
```

On se logue et on vérifie l'adresse IP.

```
MediaWiki [En fonction] - Oracle VM VirtualBox
MediaWiki login: root
Password:
SME Server release 8.0
[root@mediawiki ~]# ifconfig eth0
eth0      link encap:Ethernet HWaddr 08:00:27:C7:F9:C1
          inet addr:192.168.1.68 Bcast:192.168.1.255 Masque:255.255.255.0
          adr inet6: fe80::a00:27ff:fec7:f9c1/64 Scope:Lien
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
          RX packets:11500 errors:0 dropped:0 overruns:0 frame:0
          TX packets:6768 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 lg file transmission:1000
          RX bytes:16032015 (15.2 MiB) TX bytes:477272 (466.0 KiB)

[root@mediawiki ~]# _
```

On vérifie l'adresse du serveur virtuel avec un fureteur sur la station XP-1. Tout fonctionne.



Victoire totale, hissons la bannière de la victoire.

Crédits

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Auteur: **Michel-André Robillard CLP**

Remerciement: **Tous les contributeurs GNU/GPL.**

Intégré par: **Michel-André Robillard CLP**

Contact: **michelandre at micronator.org**

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Historique des modifications:

<i>Version</i>	<i>Date</i>	<i>Commentaire</i>	<i>Auteur</i>
0.0.1	2013-01-11	Début.	M.-A. Robillard

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