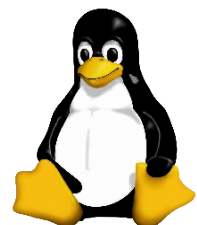
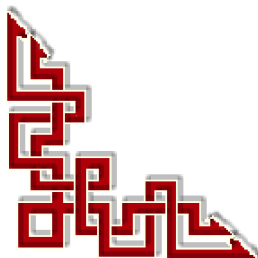


RF-232

Micronator

TuteurWeb

Apprenez *Linux SME & WordPress* par internet



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I- Introduction

1. Description générale

Vous voulez apprendre la distribution Linux de **SME** à l'aide d'un tuteur compétent à travers l'Internet? Ce document vous explique comment contacter **TuteurWeb** et ce qu'il vous faut pour débiter ce cours.

2. Ce que vous apprendrez

- L'installation et la configuration d'un serveur **SME**.
- Comment communiquer avec le serveur **SME** à l'aide de **PuTTY**.
- Comment transférer des fichiers depuis/vers le serveur **SME** avec **WinSCP**.
- Comment installer et configurer un site **WordPress** sur le serveur **SME**.
- Si vous n'avez qu'un seul ordinateur de disponible, **TuteurWeb** vous montre comment installer et configurer **VirtualBox** puis, comment créer et configurer une **machine virtuelle** pour y installer **SME**.
- Et encore plus...

3. 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.

4. 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'embaras.



Une recommandation ou astuce.



Une note.



Une étape, note ou procédure à surveiller.



Paragraphe non complété ou non vérifié.

II- Linux SME

1. Fonctionnalités

Voici, de façon simplifiée, les fonctionnalités les plus intéressantes qu'apporte cette distribution.

- Installation et configuration d'une simplicité exemplaire.
- Mises à jour aisées grâce à **server-manager**.
- Personnalisations du système faites à partir de gabarits (**templates**) simples à créer ou à modifier.
- Possibilité d'administrer complètement le serveur à distance à partir de la console locale (en passant par **SSH**) et de la console distante (depuis n'importe quel navigateur).
- Connexion et reconnexion automatique à Internet, que ce soit en **ADSL** (protocole **PPPoE** intégré) ou avec certaines lignes spécialisées.
- Possibilité d'utiliser certains serveurs **DNS** dynamiques quand on héberge soi-même un site sur une connexion avec adresse **IP** dynamique.
- Règles de pare-feu (firewall) pré-configurées pour bloquer certaines attaques extérieures. Globalement, l'aspect sécurité est pris en compte à tous les niveaux.
- Serveur de messagerie sécurisée pour envoyer et recevoir des courriels directement depuis chez soi, avec possibilité d'accéder à distance (via Internet, par exemple) à son compte de messagerie depuis une interface **WebMail** sécurisée.
- Un système d'analyse de logs permettant parfois de se sortir de situations délicates.
- Le système des **i-bays** (concept facilitant la création de serveurs virtuels) apporte une souplesse d'utilisation et une solution à de nombreux problèmes pour des réseaux ayant beaucoup d'utilisateurs ou hébergeant des sites Internet.
- Redirection de certains ports entrants vers des machines spécifiques.
- Possibilité de faire des sauvegardes sur bandes.
- etc...

2. Avantages

- Permet à plusieurs machines du réseau local de se connecter simultanément à Internet avec une connexion unique et **sécurisée**.
- Permet aux machines du réseau local d'être **invisibles** depuis Internet.
- Offre de nombreux services dont: serveur de fichier, serveur **DHCP**, serveur **FTP**, serveur **Web** (avec **PHP/MySQL**), serveur **Samba**, serveur **SSH**, serveur **mandataire**, client **NTP**, client **AppleShare (AppleTalk)**, etc...
- Peut être administré à distance depuis n'importe quel navigateur **Web** ou via **SSH** (crypté).
- Permet d'ajouter facilement de nombreuses fonctionnalités grâce à l'installation de nouveaux packages au format **RPM**.

- Étant un système dédié, il fonctionne parfaitement sur des configurations matérielles "légères".

Le serveur **SME** est souple d'utilisation, vous pouvez choisir un mode serveur et passerelle, et obtenir les services suivants:

- Serveurs **SMTP** de **Qmail** et de sécurité **NAT (IP masquerading)**.
- **IMAP4** et **POP3** (service de E-mail).
- Serveur **Web d'Apache**.
- i-bays (compartimentage).
- Gestion des utilisateurs.
- Annuaire automatisé.
- Service **DHCP** vers le réseau local.
- Supporte le **DHCP** sur l'interface externe (pour l'**IP** dynamique - Connexions **DSL** ou autres...).
- Supporte les services de **DNS** dynamiques.
- Serveur **FTP** de **ProFTPD**.
- Serveur **mandataire** (proxy server).
- Serveur **DNS**.

3. Le serveur SME, c'est quoi?

Le serveur **SME** est un serveur réseau simple d'utilisation, fiable, robuste et extensible.

- Le serveur **SME** est un **Logiciel libre** qui, une fois installé sur un ordinateur **PC**, le transforme en serveur de communications facile à utiliser, basé sur **Linux**.
- Quand vous reliez le serveur **SME** à l'Internet et à votre réseau local, il vous fournit une suite complète de services essentiels de gestion de réseau pour les communications et la collaboration internes et externes.
- Le serveur **SME** est réellement une version modifiée de 'chapeau rouge' (**RedHat**) **Linux**, un des systèmes d'exploitation les plus connus au monde.
- Cette distribution de **Linux** a été simplifiée en pré-configurant tous ses éléments, la sécurité, le disque dur, les modules etc...
- La procédure d'installation a été automatisée et facilitée au maximum ne posant qu'un nombre minimal de questions.
- De plus, extrêmement facile à utiliser et à administrer grâce à son interface intégrée il est également disponible en français.
- En quelques minutes vous aurez un serveur **Linux** parfaitement configuré que vous pouvez administrer à partir de votre explorateur Internet.
- Vous n'avez besoin d'aucune formation spécialisée; vous serez plus rapidement opérationnel que ce que vous avez imaginé.
- Le serveur **SME** peut être ajouté à n'importe quel réseau existant compatible avec les machines **Microsoft Windows**, **Macintosh** ou **Linux/Unix**.
- Le choix du système d'exploitation de vos stations de travail vous reste entier.
- Ce logiciel fonctionne sur n'importe quel **PC** de classe '**Pentium**' nouveau ou vieux.
- Le serveur **SME** est basé sur la même technologie de gestion de réseau que celle utilisée par les plus grandes sociétés du monde.
- C'est un produit robuste et fiable qui peut soutenir cinq utilisateurs ou 500.

4. Comment fonctionne-t-il?

Le serveur **SME** s'installe automatiquement sur un **PC**, le convertissant en serveur de communications d'un niveau industriel.

Il fournit de façon standard les fonctionnalités suivantes:

- Un serveur de courriels à rendement élevé qui gère les courriels de vos utilisateurs.
- Un haut niveau de sécurité qui réduit les risques d'intrusion.
- Un serveur central de fichiers permettant l'échange d'informations entre des machines **Windows**, **Macintosh**, **Linux** ou **Unix**.
- Un serveur **Web** complet supportant **CGI** et **PHP**.
- Une gestion administrative simple et cohérente pour ajouter de nouveaux comptes utilisateurs, gérer les accès à distance, configurer des imprimantes, gérer des groupes de travail, relier des réseaux additionnels, etc...
- Des services spéciaux qui gèrent les droits et l'accès à Internet améliorant le contrôle de votre réseau.
- Un concept de **i-bays** permettant un compartimentage qui rend facile la gestion des groupes de travail.

III- Prérequis

1. Entente

Contactez **TuteurWeb** par courriel à: TuteurWeb@micronator.org pour discuter d'une entente pour débiter ce cours.

2. Quincaillerie

- Posséder une station de travail ou un portable roulant préférablement **Windows-7** ou **Linux**.
- Posséder un deuxième ordinateur: 32 ou 64 bits, de moyenne puissance, dans lequel vous pouvez ajouter une deuxième carte réseau et qui possède un disque dur d'au moins **10 GB**. Cet ordinateur deviendra complètement dédié à **SME**.
- Une carte réseau supplémentaire pour le branchement du serveur **SME** à Internet à travers un **modem ADSL**.
- Un casque d'écoute avec microphone intégré pour **Skype**.



Si vous ne possédez pas un deuxième ordinateur, vous pouvez utiliser seulement votre station de travail.

- **TuteurWeb** vous montrera comment installer le logiciel libre **VirtualBox** d'**Oracle** et créer une machine virtuelle pour y installer **SME**.
- Votre station de travail devra avoir au moins **4GB** de mémoire pour pouvoir opérer convenablement.
- **VirtualBox** demande environ **180 MB** pour son installation.
- Une machine virtuelle **SME** demande, au minimum, environ **6 GB**.

3. Logiciels

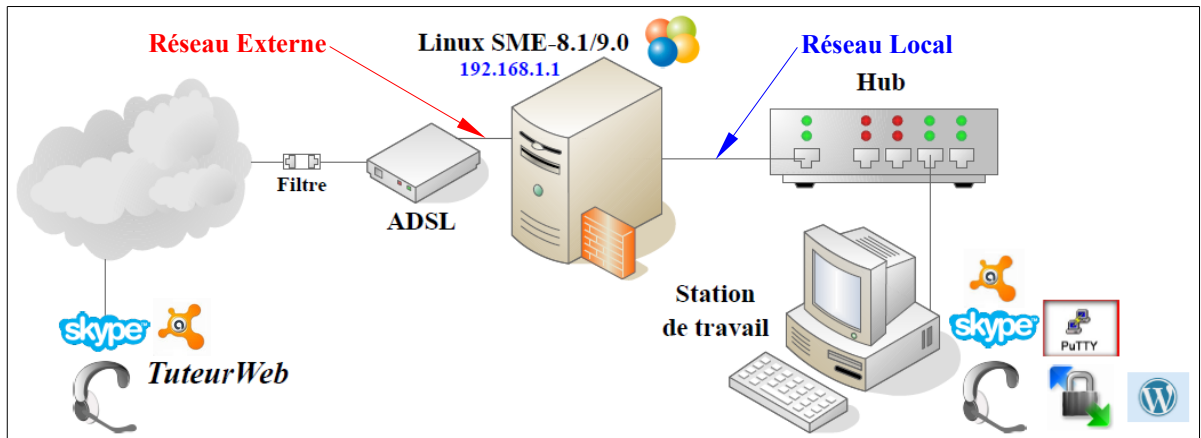
Ces logiciels sont tous gratuits et faciles d'installation.

- **Skype** pour communiquer avec **TuteurWeb**.
- **Avast** pour que **TuteurWeb** puisse voir le bureau de votre station.
- **PuTTY** pour ouvrir un session de commandes à la ligne avec le serveur **SME**.
- **WinSCP** pour transférer des fichiers depuis/vers le serveur **SME**.
- **SME** version 32 ou 64 bits pour l'installation du serveur.
- **VirtualBox** si vous utiliser uniquement votre station de travail.
- **WordPress** si vous voulez installer un site Internet plus élaboré sur le serveur **SME**.

4. Diagramme d'une classe virtuelle

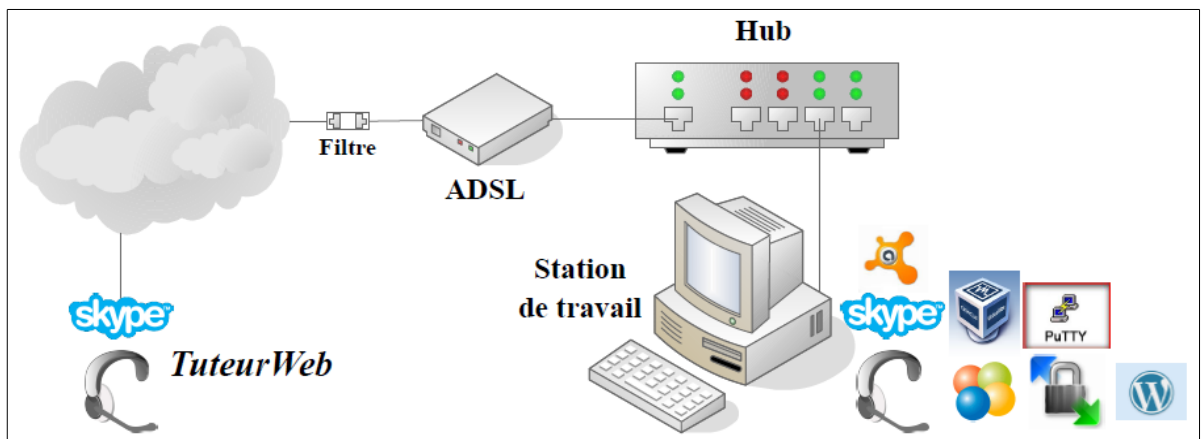
4.1. SME sur un serveur dédié

Voici une représentation de votre classe virtuelle si vous installez SME sur un ordinateur dédié.



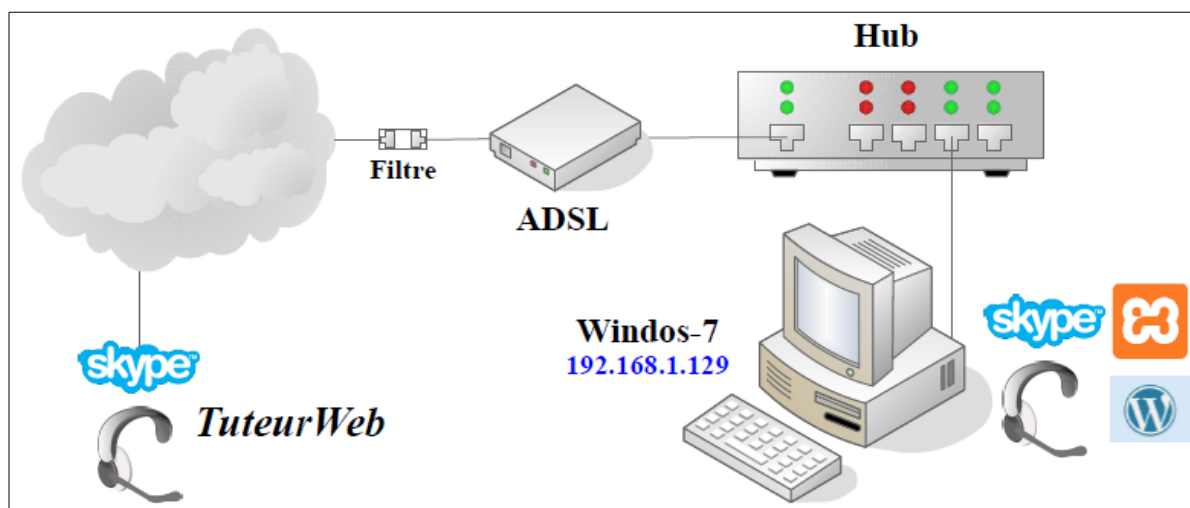
4.2. SME sur une machine virtuelle

Voici une représentation de votre classe virtuelle si vous installez SME sur une machine virtuelle située sur votre station de travail.



5. Site Internet sur station Windows 7

Comment se familiariser avec **WordPress** sur une station de travail **Windows 7** en utilisant **XAMPP**.



6. Configurations différentes

N'hésitez pas à communiquer avec **TuteurWeb** si vous utilisez une configuration différente.

Courriel: TuteurWeb@micronator.org



Victoire totale.

Crédits

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

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