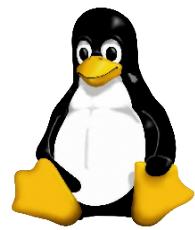
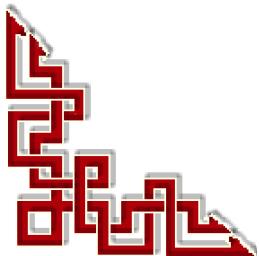


**RF-232**

# **Micronator**

**CentOS-6.3**



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**Avertissement**

*Bien que nous utilisions 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 un système minimum **CentOS-6.3**.

**CentOS** (Community enterprise Operating System) est une distribution GNU/Linux principalement destinée aux serveurs. Tous ses paquets, à l'exception du logo, sont des paquets compilés à partir des sources de la distribution RHEL (**Red Hat Enterprise Linux**), éditée par la société **Red Hat**. Elle est donc quasiment identique et se veut 100 % compatible d'un point de vue binaire.

Avec 30 % des serveurs web Linux l'utilisant, cela fait de cette dernière l'une des distributions linux les plus populaires pour les serveurs web. Depuis janvier 2012 elle est la seconde distribution la plus utilisée sur les serveurs avec en décembre 2012 27.5 %, derrière **Debian** (32,6 %) et devant **Ubuntu**.

Référence: <http://fr.wikipedia.org/wiki/CentOS>

## 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.



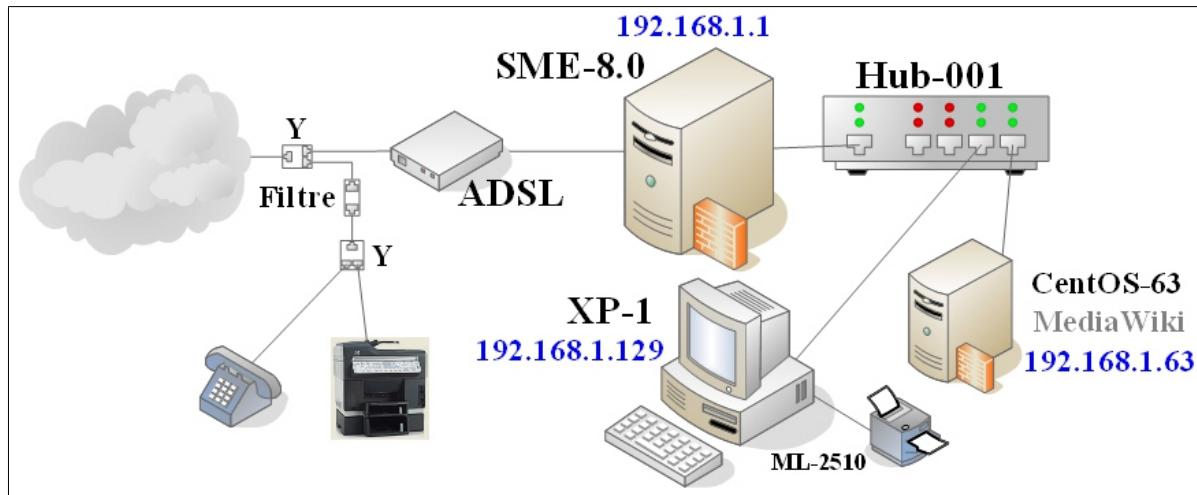
Un site de téléchargement **FTP**.



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

## II- À savoir

### 1. Diagramme réseau



### 2. Matériel utilisé

#### 2.1. Station XP-1

Windows XP/SP3.

C'est sur cette station qu'est installé **VirtualBox-4.2.6**. On utilise aussi cette station pour tous les tests.

Adresse: **192.168.1.129**.

#### 2.2. Serveur SME-8.0

Serveur passerelle pour connexion à **Internet**.

Serveur DNS/DHCP pour tout le réseau.

Adresse: **192.168.1.1**.

Nom réel du serveur: **dorgee**.

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

#### 2.3. Serveur CentOS-6.3

Serveur minimum CentOS-6.3.

Adresse: **192.168.1.63**.

Nom réel du serveur: **centos-63**.

Le nom complet du serveur est: **.centos-63.micronator.org**.

### **3. Nom du domaine**

Le nom du domaine est **micronator.org**.

### **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. Serveur SME**

Version: 8.0.

Référence: [http://wiki.contribs.org/Main\\_Page/fr](http://wiki.contribs.org/Main_Page/fr)

#### **6.3. Serveur CentOS**

Version minimum: 6.3.

Référence: <http://www.centos.org/>

#### **6.4. MediaWiki**

1.21alpha.

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

#### **6.5. PuTTY**

Téléchargement: <http://www.commentcamarche.net/download/telecharger-90-putty>

#### **6.6. WinSCP**

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

#### **6.7. DigestIT 2004**

Téléchargement: <http://www.colonywest.us/digestit/>

# III- Prérequis

## 1. CentOS

### 1.1. Téléchargement

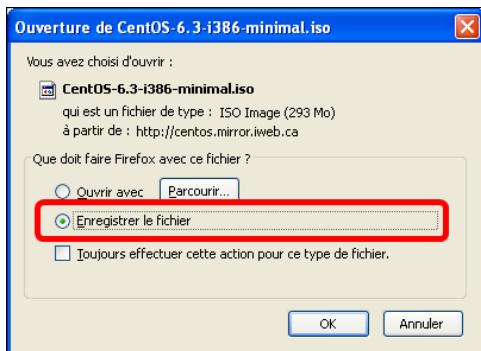
On se rend à l'adresse suivante pour le téléchargement:

<http://www.centos.org/modules/tinycontent/index.php?id=30>.

Choisir et cliquer un site **http** ou **ftp**.

Nous avons choisi:

<http://centos.mirror.iweb.ca/6.3/isos/i386/>



Index of /6.3/isos/i386 - Mozilla Firefox

Name	Last modified	Size	Description
Parent Directory		-	
<a href="#">0_README.txt</a>	06-Jul-2012 08:37	2.0K	
<a href="#">CentOS-6.3-i386-bin-DVD1.iso</a>	07-Jul-2012 04:46	3.5G	
<a href="#">CentOS-6.3-i386-bin-DVD1to2.torrent</a>	09-Jul-2012 14:24	182K	
<a href="#">CentOS-6.3-i386-bin-DVD2.iso</a>	07-Jul-2012 04:47	1.1G	
<a href="#">CentOS-6.3-i386-LiveCD.iso</a>	07-Jul-2012 13:14	690M	
<a href="#">CentOS-6.3-i386-LiveCD.torrent</a>	09-Jul-2012 14:31	216K	
<a href="#">CentOS-6.3-i386-LiveDVD.iso</a>	07-Jul-2012 05:03	1.6G	
<a href="#">CentOS-6.3-i386-LiveDVD.torrent</a>	09-Jul-2012 14:31	259K	
<a href="#">CentOS-6.3-i386-minimal.iso</a>	07-Jul-2012 04:49	293M	
<a href="#">CentOS-6.3-i386-netinstall.iso</a>	07-Jul-2012 04:36	194M	
<a href="#">md5sum.txt</a>	28-Jul-2012 14:48	577	
<a href="#">md5sum.txt.asc</a>	28-Jul-2012 14:50	1.4K	
<a href="#">sha1sum.txt</a>	28-Jul-2012 14:49	649	
<a href="#">sha1sum.txt.asc</a>	28-Jul-2012 14:51	1.5K	
<a href="#">sha256sum.txt</a>	28-Jul-2012 14:50	865	
<a href="#">sha256sum.txt.asc</a>	28-Jul-2012 14:51	1.7K	

Enregistrer le fichier.

### 1.2. Somme de contrôle

Sur la même page, on clique **md5sum.txt** pour voir la somme de contrôle. On peut noter cette **somme de contrôle** pour vérifier, plus tard, l'intégrité du téléchargement.

0285160d8ba3cfc720ea55e98e464eac 4ac7ee9196cbe7d229152cf35d990658 <b>081ce8ba3e9f761a35d47f1c345562c1</b> 0fd7660aa5eb1e3cae19f010db438f3 8d3c71b419761ff70d7291d9848bf10 62b58079dfc5a112758d0934153919ba df2cb287f85a789e25dde78160459fd4 4236764feed177d790dfe2c1234de9ee 259bdf8fece0fccb987fbcc1eff43f420	CentOS-6.3-i386-bin-DVD1.iso CentOS-6.3-i386-bin-DVD2.iso <b>CentOS-6.3-i386-minimal.iso</b> CentOS-6.3-i386-netinstall.iso CentOS-6.3-i386-LiveCD.iso CentOS-6.3-i386-LiveDVD.iso CentOS-6.3-i386-bin-DVD1to2.torrent CentOS-6.3-i386-LiveCD.torrent CentOS-6.3-i386-LiveDVD.torrent
--	---

<a href="#">CentOS-6.3-i386-netinstall.iso</a>
<b><a href="#">md5sum.txt</a></b>
<a href="#">md5sum.txt.asc</a>

## 2. Somme de contrôle



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

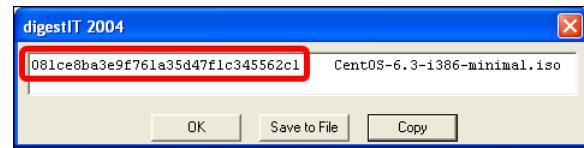
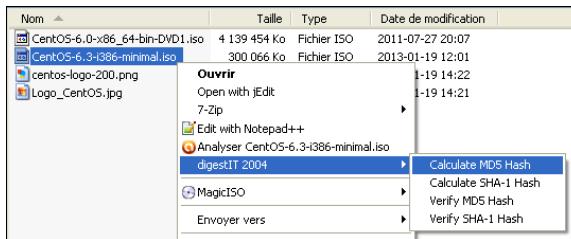
On peut descendre et installer **DigestIT 2004** pour XP pour calculer la **somme de contrôle**. Le site de téléchargement de **DigestIT 2004** est:

[http://www.colonywest.us/index.php?option=com\\_content&view=article&id=46&Itemid=56](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**.

Lancer **DigestIT 2004**.

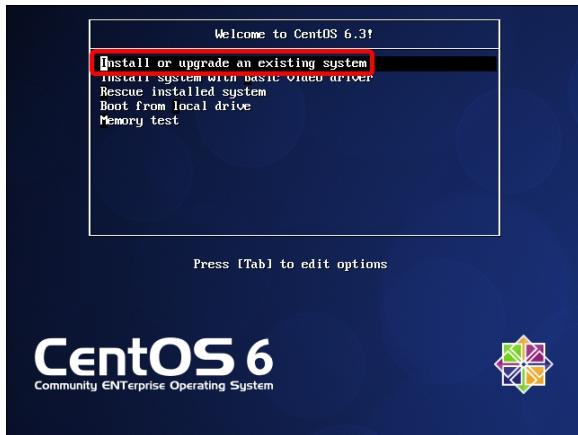
La **somme de contrôle** correspond.



## IV- CentOS-6.3

### 1. Installation

Install or upgrade an existing system.



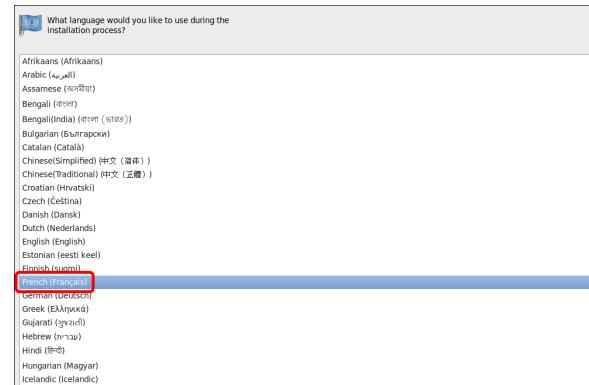
Skip.



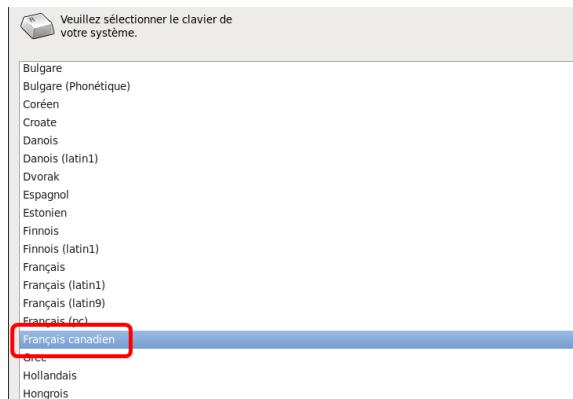
Next.



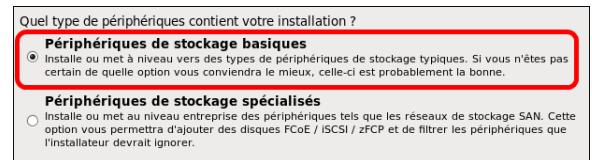
Français | Next.



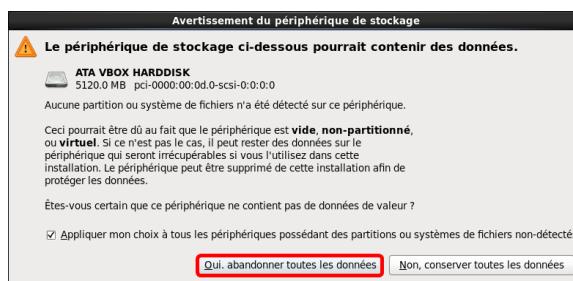
Français Canadien | Suivant



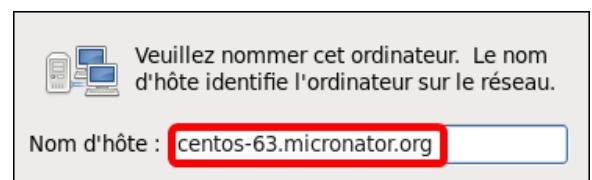
Pérophériques de stockage basiques | Suivant.



Oui, Abandonner toutes les données.

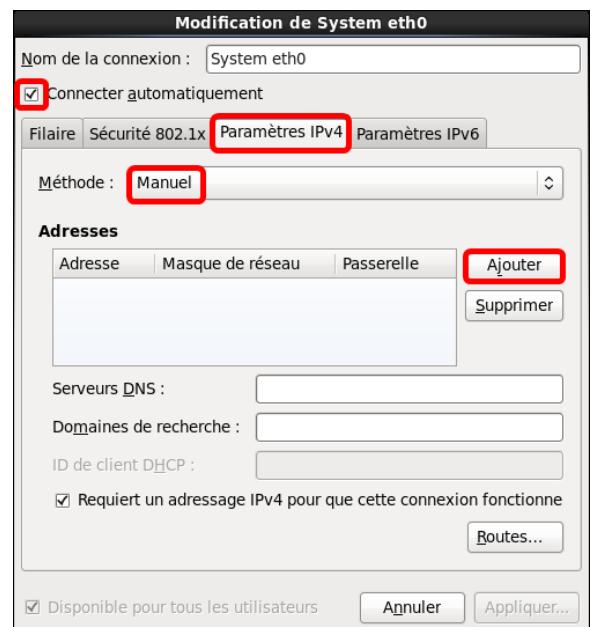
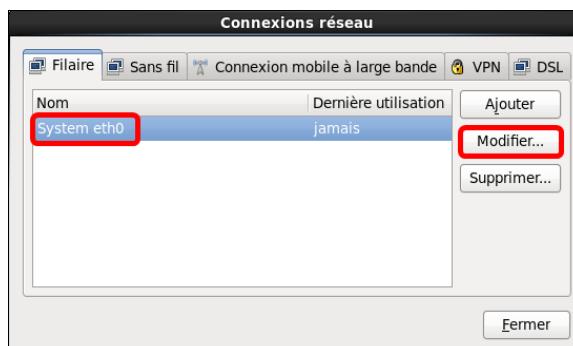


centos-63.micronator.org | Configurer le réseau.



[Configurer le réseau](#)

System eth0 | Modifier... | cocher Connecter automatiquement | Paramètres IPv4 | Manuel | Ajouter.



Adresse: 192.168.1.63 | Masque de réseau: 255.255.255.0 | Passerelle: 192.168.1.1 | Serveur DNS: 192.168.1.1 | Domaine de recherche: micronator.org | Appliquer... | Fermer | Suivant.

The left window shows the configuration for interface 'System eth0'. It includes fields for 'Nom de la connexion' (System eth0), 'Connecter automatiquement' (checked), 'Méthode' (Manuel), 'Adresses' (IP 192.168.1.63, Mask 255.255.255.0, Gateway 192.168.1.1), 'Serveurs DNS' (192.168.1.1), 'Domaines de recherche' (micronator.org), and a checkbox for 'Requiert un adressage IPv4 pour que cette connexion fonctionne'. Buttons for 'Annuler' and 'Appliquer...' are at the bottom. The right window shows the 'Connexions réseau' list with 'System eth0' selected. A red box highlights the 'Fermer' button in the bottom right corner of the right window. A large red box highlights the 'Suivant' button in the bottom right corner of the main window.

Amérique/Montréal | décocher Horloge système en UTC | mot de passe | mot de passe | Suivant.

The left window shows a map of North America with a red 'X' marking 'Montréal'. Below it, the text 'Ville sélectionnée : Montréal, Amérique (Heure de l'Est - Québec - lieux divers)' and a dropdown menu showing 'Amérique/Montréal' are visible. A red box highlights the dropdown menu. The right window shows a checkbox for 'Horloge système en UTC' (unchecked) and a note about using the 'root' account. Below are fields for 'Mot de passe « root »' and 'Confirmation' (both containing five dots). A red box highlights the 'Mot de passe « root »' field.

### Utiliser tout l'espace.

This window lists several options for partitioning existing Linux systems:

- Utiliser tout l'espace**: Selects all partitions on the selected device. A note says it removes all partitions, including those from other operating systems. An 'Astuce' note says it removes all data on the selected device.
- Remplacement du (ou des) système(s) Linux existant(s)**: Deletes all Linux partitions (from previous installations). It notes it won't affect other partitions or the file system type (VFS or FAT32).
- Réduire la taille du système actuel**: Reduces the size of the current system's partitions to create space for new ones.
- Utiliser l'espace libre**: Preserves existing data and partitions, only using non-partitioned space.
- Créer un partitionnement personnalisé**: Manually creates a custom partitioning scheme.

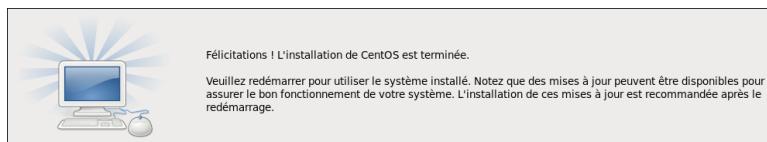
### Écrire les modifications sur le disque.

This window contains a warning message: 'Les options de partitionnement que vous avez sélectionné vont maintenant être écrites sur le disque. Toutes les données sur les partitions supprimées ou reformatées seront perdues.' It has two buttons: 'Revenir en arrière' and 'Écrire les modifications sur le disque'. A red box highlights the 'Écrire les modifications sur le disque' button.

L'installation se poursuit.



*L'installation est terminée | Redémarrer.*



On se logue.

```
login as: root
root@192.168.1.63's password:
Last login: Sun Jan 20 15:07:36 2013
[root@centos-63 ~]#
```

La carte réseau fonctionne et elle a la bonne adresse et le bon masque.

```
[root@centos-63 ~]# ifconfig
eth0      Link encap:Ethernet HWaddr 08:00:27:19:2A:A4
          inet adr:192.168.1.63 Bcast:192.168.1.255 Masque:255.255.255.0
          adr inet6: fe80::a00:27ff:fe19:2aa4/64 Scope:Lien
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
          RX packets:74 errors:0 dropped:0 overruns:0 frame:0
          TX packets:77 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 lg file transmission:1000
          RX bytes:8093 (7.9 KiB) TX bytes:8771 (8.5 KiB)

lo       Link encap:Boucle locale
          inet adr:127.0.0.1 Masque:255.0.0.0
          adr inet6: ::1/128 Scope:Hôte
          UP LOOPBACK RUNNING MTU:16436 Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 lg file transmission:0
          RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)

[root@centos-63 ~]#
```

La passerelle et le service DNS fonctionnent car on peut faire un ping de google.com.

```
[root@centos-63 ~]# ping google.com
PING google.com (74.125.226.34) 56(84) bytes of data.
64 bytes from yyz06s06-in-f2.1e100.net (74.125.226.34): icmp_seq=1 ttl=58 time=50.9 ms
64 bytes from yyz06s06-in-f2.1e100.net (74.125.226.34): icmp_seq=2 ttl=58 time=52.2 ms
^C
--- google.com ping statistics ---
3 packets transmitted, 2 received, 33% packet loss, time 2013ms
rtt min/avg/max/mdev = 50.914/51.587/52.261/0.710 ms
[root@centos-63 ~]#
```

## 2. Configuration

### 2.1. Réseau

Si on n'a pas configuré le réseau lors de l'installation, on peut le faire maintenant en suivant la procédure suivante.

#### 2.1.1. Adresse IP

On configure **eth0** pour avoir une adresse **IP statique**.

On édite le fichier **/etc/sysconfig/network-scripts/ifcfg-eth0**.

```
vi /etc/sysconfig/network-scripts/ifcfg-eth0
```

Fichier original avec **IP DHCP**.

```
DEVICE="eth0"
BOOTPROTO="dhcp"
HWADDR="00:0C:29:32:E3:70"
NM_CONTROLLED="yes"
ONBOOT="no"
TYPE="Ethernet"
UUID="1ed56d4e-88fe-4c8f-ab85-7d9ad2261439"
```

Nouveau fichier avec **IP statique**.

```
DEVICE="eth0"
BOOTPROTO="static"
HWADDR="00:0C:29:32:E3:70"
NM_CONTROLLED="yes"
ONBOOT="yes"
TYPE="Ethernet"
IPADDR=192.168.1.63
NETMASK=255.255.255.0
```

#### 2.1.2. Passerelle

On édite le fichier **/etc/sysconfig/network**.

```
vi /etc/sysconfig/network
```

```
NETWORKING=yes
HOSTNAME=centos-63.micronator.org
GATEWAY=192.168.1.1
```

#### 2.1.3. DNS

On édite le fichier **/etc/resolv.conf**.

```
vi /etc/resolv.conf
```

```
search micronator.org
nameserver 192.168.1.1
```

Pour que tous les changements soient effectifs, on repart le service réseau.

```
[root@centos-63 ~]# /etc/init.d/network restart
Arrêt de l'interface eth0 :                                     [  OK  ]
Arrêt de l'interface loopback :                                [  OK  ]
Activation de l'interface loopback :                            [  OK  ]
Activation de l'interface eth0 :                                     [  OK  ]
[root@centos-63 ~]#
```

## 2.2. /etc/hosts

On édite le fichier **/etc/hosts**.

```
vi /etc/hosts
```

Fichier **/etc/hosts original**.

```
127.0.0.1      localhost localhost.localdomain localhost4 localhost4.localdomain4
::1            localhost localhost.localdomain localhost6 localhost6.localdomain6
```

Nouveau fichier **/etc/hosts**.

```
127.0.0.1      localhost
192.168.1.63   centos-63.micronator.org    centos-63
```

On vérifie.

```
[root@centos-63 ~]# cat /etc/hosts
127.0.0.1      localhost
192.168.1.63   centos-63.micronator.org    centos-63
[root@centos-63 ~]#
```

## 3. Mise à jour

La commande suivante permet de vérifier la liste de tous les composants qui seront mis à jour.

```
[root@centos-63 ~]# yum list updates
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: centos.mirrors.atwab.net
 * extras: centos.mirrors.atwab.net
 * updates: mirror.csclub.uwaterloo.ca
...
...
util-linux-ng.i686                               2.17.2-12.7.el6_3                         updates
[root@centos-63 ~]#
```

On lance la mise à jour du système.

```
[root@centos-63 ~]# yum update
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: centos.mirrors.atwab.net
 * extras: centos.mirrors.atwab.net
 * updates: mirror.csclub.uwaterloo.ca
Setting up Update Process
Resolving Dependencies
--> Running transaction check
```

```
...
...
...
Install      1 Package(s)
Upgrade     47 Package(s)

Total download size: 87 M
Is this ok [y/N]: y
Downloading Packages:
Setting up and reading Presto delta metadata
...
...
...
selinux-policy-targeted.noarch 0:3.7.19-155.el6_3.14      tzdata.noarch 0:2012i-2.el6
udev.i686 0:147-2.42.el6                                upstart.i686 0:0.6.5-12.el6
util-linux-ng.i686 0:2.17.2-12.7.el6_3

Complete!
[root@centos-63 ~] #
```

Une fois le processus de mise à jour terminé, on réamorce.

```
[root@centos-63 ~]# reboot

Broadcast message from root@centos-63
(/dev/pts/0) at 11:37 ...

The system is going down for reboot NOW!
[root@centos-63 ~] #
```

## 4. Installation de vim

On installe **vim** qui améliore la visibilité lors de l'édition de fichiers.

```
[root@centos-63 ~]# yum -y install vim
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
...
...
...
Installed:
  vim-enhanced.i686 2:7.2.411-1.8.el6

Dependency Installed:
  gpm-libs.i686 0:1.20.6-12.el6                      vim-common.i686 2:7.2.411-1.8.el6

Complete!
[root@centos-63 ~] #
```

## 5. Installation de mlocate

Pour la recherche de fichiers.

```
[root@centos-63 html]# yum -y install mlocate

Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: centos.mirrors.atwab.net
 * extras: centos.mirrors.atwab.net
 * updates: mirror.csclub.uwaterloo.ca
Setting up Install Process
Resolving Dependencies
--> Running transaction check
```

```
...
...
...
Installed:
  mlocate.i686 0:0.22.2-3.el6

Complete!
[root@centos-63 html]#
```

On met à jour la base de données pour la recherche.

```
[root@centos-63 ~]# updatedb
[root@centos-63 ~]#
```

## 6. Installation de lynx

Lynx est un fureteur utilisé en ligne de commandes.

```
[root@centos-63 ~]# yum -y install lynx
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: less.cogeco.net
 * extras: less.cogeco.net
 * updates: mirror.agmn.ca
Setting up Install Process
Resolving Dependencies
--> Running transaction check
--> Package lynx.i686 0:2.8.6-27.el6 will be installed
--> Processing Dependency: redhat-indexhtml for package: lynx-2.8.6-27.el6.i686
--> Running transaction check
--> Package centos-indexhtml.noarch 0:6-1.el6.centos will be installed
--> Finished Dependency Resolution
...
...
...
Installed:
  lynx.i686 0:2.8.6-27.el6

Dependency Installed:
  centos-indexhtml.noarch 0:6-1.el6.centos

Complete!
[root@centos-63 ~]#
```

## 7. Installation de MySQL5

Référence:

<http://www.howtoforge.com/installing-apache2-with-php5-and-mysql-support-on-centos-6.3-lamp>

On installe MySQL.

```
yum -y install mysql mysql-server
```

On active MySQL pour les niveau 23.

```
chkconfig --levels 23 mysqld on
```

On vérifie.

```
[root@centos-63 ~]# chkconfig --list | grep mysql
mysqld           0:arrêt 1:arrêt 2:marche          3:marche          4:arrêt 5:arrêt 6:arrêt
[root@centos-63 ~]#
```

On démarre MySQL.

```
[root@centos-63 ~]# /etc/init.d/mysqld start

Initialisation de la base de données MySQL : WARNING: The host 'centos-63.micronator.org'
could not be looked up with resolveip.
This probably means that your libc libraries are not 100 % compatible
with this binary MySQL version. The MySQL daemon, mysqld, should work
normally with the exception that host name resolving will not work.
This means that you should use IP addresses instead of hostnames
when specifying MySQL privileges !
Installing MySQL system tables...
OK
Filling help tables...
OK

To start mysqld at boot time you have to copy
support-files/mysql.server to the right place for your system

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:

/usr/bin/mysqladmin -u root password 'new-password'
/usr/bin/mysqladmin -u root -h centos-63.micronator.org password 'new-password'

Alternatively you can run:
/usr/bin/mysql_secure_installation

which will also give you the option of removing the test
databases and anonymous user created by default. This is
strongly recommended for production servers.

See the manual for more instructions.

You can start the MySQL daemon with:
cd /usr ; /usr/bin/mysqld_safe &

You can test the MySQL daemon with mysql-test-run.pl
cd /usr/mysql-test ; perl mysql-test-run.pl

Please report any problems with the /usr/bin/mysqlbug script!

[ OK ]
[Démarrage de mysqld :]
[ OK ]
[root@centos-63 ~]#
```

On active un mot de passe pour le compte **root** de MySQL.

```
[root@centos-63 ~]# mysql_secure_installation

NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MySQL
SERVERS IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!

In order to log into MySQL to secure it, we'll need the current
password for the root user. If you've just installed MySQL, and
you haven't set the root password yet, the password will be blank,
```

```
so you should just press enter here.

Enter current password for root (enter for none):.....<RETOUR>
OK, successfully used password, moving on...

Setting the root password ensures that nobody can log into the MySQL
root user without the proper authorisation.

Set root password? [Y/n].....<RETOUR>
New password: .....mot-de-passe-de-root & <RETOUR>
Re-enter new password: .....mot-de-passe-de-root & <RETOUR>
Password updated successfully!
Reloading privilege tables..
... Success!

By default, a MySQL installation has an anonymous user, allowing anyone
to log into MySQL without having to have a user account created for
them. This is intended only for testing, and to make the installation
go a bit smoother. You should remove them before moving into a
production environment.

Remove anonymous users? [Y/n].....<RETOUR>
... Success!

Normally, root should only be allowed to connect from 'localhost'. This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n].....<RETOUR>
... Success!

By default, MySQL comes with a database named 'test' that anyone can
access. This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n].....<RETOUR>
- Dropping test database...
... Success!
- Removing privileges on test database...
... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n].....<RETOUR>
... Success!

Cleaning up...

All done! If you've completed all of the above steps, your MySQL
installation should now be secure.

Thanks for using MySQL!

[root@centos-63 ~]#
```

## 8. Installation d'Apache2

```
[root@centos-63 ~]# yum -y install httpd
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: less.cogeco.net
 * extras: less.cogeco.net
```

```
* updates: mirror.agmn.ca
Setting up Install Process
Resolving Dependencies
--> Running transaction check
...
...
...
Installed:
  httpd.i686 0:2.2.15-15.el6.centos.1

Dependency Installed:
  apr.i686 0:1.3.9-5.el6_2           apr-util.i686 0:1.3.9-3.el6_0.1
  apr-util-ldap.i686 0:1.3.9-3.el6_0.1  httpd-tools.i686 0:2.2.15-15.el6.centos.1
  mailcap.noarch 0:2.1.31-2.el6

Complete!
[root@centos-63 ~]#
```

On active **httpd** pour les niveau **23**.

```
chkconfig --levels 23 httpd on
```

On vérifie.

```
[root@centos-63 ~]# chkconfig --list | grep httpd
httpd          0:arrêt 1:arrêt 2:marche            3:marche            4:arrêt 5:arrêt 6:arrêt
[root@centos-63 ~]#
```

On démarre **Apache**.

```
[root@centos-63 ~]# /etc/init.d/httpd start
Démarrage de httpd :
[root@centos-63 ~]#
```

## 9. iptables

Arrêt des services **iptables**.

```
[root@centos-63 ~]# service iptables stop
iptables : Suppression des règles du pare-feu :          [  OK  ]
iptables : Configuration des chaînes sur la politique ACCEP[  OK  ]ter
iptables : Déchargement des modules :                  [  OK  ]
[root@centos-63 ~]#
```

```
[root@centos-63 ~]# service ip6tables stop
ip6tables : Suppression des règles du pare-feu :          [  OK  ]
ip6tables : Configuration des chaînes sur la politique ACCEP[  OK  ]ter
ip6tables : Déchargement des modules :                  [  OK  ]
[root@centos-63 ~]#
```

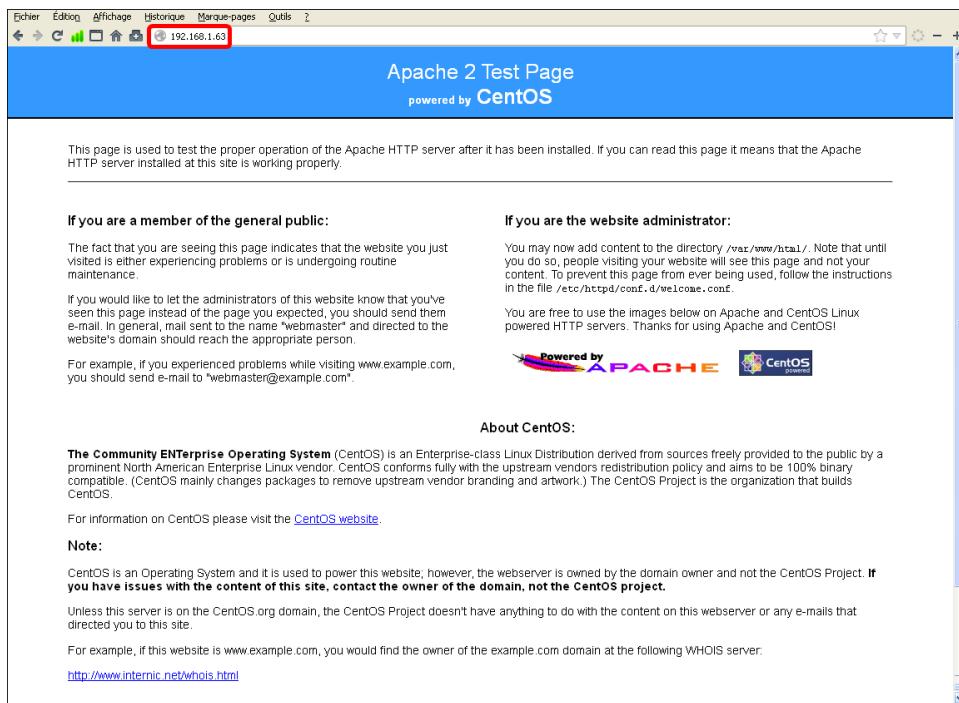
Désactivation d'**iptables** du démarrage automatique.

```
chkconfig iptables off ; chkconfig ip6tables off
```

```
[root@centos-63 ~]# chkconfig --list |grep table
ip6tables      0:arrêt 1:arrêt 2:arrêt 3:arrêt 4:arrêt 5:arrêt 6:arrêt
iptables      0:arrêt 1:arrêt 2:arrêt 3:arrêt 4:arrêt 5:arrêt 6:arrêt
[root@centos-63 ~]#
```

## 10. Vérification du fonctionnement d'Apache

On se rend à l'adresse de notre serveur.



## 11. Installation de PHP5

```
[root@centos-63 ~]# yum -y install php
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: less.cogeco.net
 * extras: less.cogeco.net
 * updates: less.cogeco.net
Setting up Install Process
...
...
...
Installed:
  php.i686 0:5.3.3-14.el6_3

Dependency Installed:
  php-cli.i686 0:5.3.3-14.el6_3                      php-common.i686 0:5.3.3-14.el6_3

Complete!
[root@centos-63 ~]#
```

On doit redémarrer Apache.

```
[root@centos-63 ~]# /etc/init.d/httpd restart
Arrêt de httpd :                                         [   OK   ]
Démarrage de httpd :                                     [   OK   ]
[root@centos-63 ~]#
```

## 12. Vérification de PHP5

Nous allons vérifier si l'installation de **PHP5** s'est bien déroulé.

Le répertoire racine du site est **/var/www/html/**. Nous allons créer un petit fichier (**info.php**) dans ce répertoire et l'appeler à l'aide d'un fureteur. Le fichier devrait afficher les détails concernant l'installation de **PHP** tel que sa version, etc...

```
vim /var/www/html/info.php
```

```
<?php  
phpinfo();  
?>
```

On vérifie.

```
[root@centos-63 ~]# cat /var/www/html/info.php  
<?php  
phpinfo();  
?>  
[root@centos-63 ~]#
```

Nous exécutons ce fichier en pointant un fureteur sur **http://192.168.1.63/info.php**.

System	Linux centos-63.micronator.org 2.6.32-279.19.1.el6.i686 #1 SMP Wed Dec 19 04:30:58 UTC 2012 i686
Build Date	Jul 3 2012 16:41:09
Configuration Command	'/configure' --build=i386-redhat-linux-gnu' --host=i386-redhat-linux-gnu' --target=i686-redhat-linux-gnu' --program-prefix=' --prefix=/usr' --exec-prefix=/usr' --bindir=/usr/bin' --sbindir=/usr/sbin' --sysconfdir=/etc' --datadir=/usr/share' --includedir=/usr/include' --libdir=/usr/lib' --libexecdir=/usr/libexec' --localstatedir=/var' --sharedstatedir=/var/lib' --mandir=/usr/share/man' --infodir=/usr/share/info' --cache-file= ./config.cache' --with-libdir=/ --with-config-file-path=/etc' --with-config-file-scan-dir=/etc/php.d' --disable-debug' --with-pic' --disable-rpath' --without-pear' --with-bz2' --with-exec-dir=/usr/bin' --with-freetype-dir=/usr' --with-onig-dir=/usr' --with-expm-dir=/usr' --enable-gd-native-ttf' --without-gdbm' --with-gettext' --with-gmp' --with-iconv' --with-jpeg-dir=/usr' --with-openssl' --with-pcre-regex=/usr' --with-zlib' --with-layout=GNU' --enable-exit' --enable-fp' --enable-magic-quotes' --enable-sockets' --enable-sysvsem' --enable-sysvshm' --enable-sysvmsg' --with-kerberos' --enable-ucd-snmp-hack' --enable-shmop' --enable-calendar' --without-sqlite' --with-libxml-dir=/usr' --enable-xml' --with-system-zdata' --with-apxs2=/usr/sbin/apxs' --without-mysql' --without-gd' --enable-dom' --enable-dba' --without-unixODBC' --disable-pdo' --disable-xmfreader' --enable-xmlwriter' --without-sqlite3' --disable-phar' --disable-fileinfo' --enable-json' --without-pspell' --enable-wddx' --without-curl' --disable-posix' --enable-sysvmsg' --enable-sysvshm' --enable-sysvsem'
Server API	Apache 2.0 Handler

Comme on peut le voir, **PHP5** est fonctionnel à travers le gestionnaire d'**Apache-2.0** tel que démontré par la ligne **Server API**.

Si on descend sur la page, on voit tous les modules qui sont déjà activés dans **PHP5**. **MySQL** n'y est pas mentionné sous-entendant que nous ne disposons pas encore du support **MySQL** de **PHP5**.

## 13. Support MySQL de PHP5

Pour profiter du support **MySQL** de **PHP5**, on doit installer le paquetage **php-mysql**.

Il serait aussi avantageux d'installer quelques autres modules **PHP5** qui pourraient s'avérer nécessaires pour nos futures applications.

On peut afficher les modules **PHP5** disponibles en lançant la commande suivante.

```
[root@centos-63 ~]# yum search php

Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: less.cogeco.net
 * extras: less.cogeco.net
 * updates: less.cogeco.net
=====
cups-php.i686 : Common Unix Printing System - php module
graphviz-php.i686 : PHP extension for graphviz
php.i686 : PHP scripting language for creating dynamic web sites
php-bcmath.i686 : A module for PHP applications for using the bcmath library
php-cli.i686 : Command-line interface for PHP
php-common.i686 : Common files for PHP
php-dba.i686 : A database abstraction layer module for PHP applications
php-devel.i686 : Files needed for building PHP extensions
php-embedded.i686 : PHP library for embedding in applications
php-gd.i686 : A module for PHP applications for using the gd graphics library
php-imap.i686 : A module for PHP applications that use IMAP
php-intl.i686 : Internationalization extension for PHP applications
php-ldap.i686 : A module for PHP applications that use LDAP
php-mbstring.i686 : A module for PHP applications which need multi-byte string handling
php-mysql.i686 : A module for PHP applications that use MySQL databases
php-odbc.i686 : A module for PHP applications that use ODBC databases
php-pdo.i686 : A database access abstraction module for PHP applications
php-pear.noarch : PHP Extension and Application Repository framework
php-pecl-apc.i686 : APC caches and optimizes PHP intermediate code
php-pgsql.i686 : A PostgreSQL database module for PHP
php-process.i686 : Modules for PHP script using system process interfaces
php-pspell.i686 : A module for PHP applications for using pspell interfaces
php-recode.i686 : A module for PHP applications for using the recode library
php-snmp.i686 : A module for PHP applications that query SNMP-managed devices
php-soap.i686 : A module for PHP applications that use the SOAP protocol
php-tidy.i686 : Standard PHP module provides tidy library support
php-xml.i686 : A module for PHP applications which use XML
php-xmlrpc.i686 : A module for PHP applications which use the XML-RPC protocol
php-zts.i686 : Thread-safe PHP interpreter for use with the Apache HTTP Server
rrdtool-php.i686 : PHP RRDtool bindings
uuid-php.i686 : PHP support for Universally Unique Identifier library
php-enchant.i686 : Human Language and Character Encoding Support
php-pecl-apc-devel.i686 : APC developer files (header)
php-pecl-memcache.i686 : Extension to work with the Memcached caching daemon

Name and summary matches only, use "search all" for everything.
[root@centos-63 ~]#
```

Nous allons installer quelques modules supplémentaires.

```
[root@centos-63 ~]# yum -y install php-mysql php-gd php-imap php-ldap php-mbstring \
php-odbc php-pear php-xml php-xmlrpc

Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: less.cogeco.net
 * extras: less.cogeco.net
 * updates: less.cogeco.net
Setting up Install Process
Resolving Dependencies
--> Running transaction check
...
...
Installed:
  php-gd.i686 0:5.3.3-14.el6_3          php-imap.i686 0:5.3.3-14.el6_3
  php-ldap.i686 0:5.3.3-14.el6_3         php-mbstring.i686 0:5.3.3-14.el6_3
  php-mysql.i686 0:5.3.3-14.el6_3        php-odbc.i686 0:5.3.3-14.el6_3
  php-pear.noarch 1:1.9.4-4.el6            php-xml.i686 0:5.3.3-14.el6_3
```

```

php-xmlrpc.i686 0:5.3.3-14.el6_3

Dependency Installed:
  freetype.i686 0:2.3.11-6.el6_2.9
  libX11-common.noarch 0:1.3-2.el6
  libXpm.i686 0:3.5.8-2.el6
  libjpeg.i686 0:6b-46.el6
  libtool-ltdl.i686 0:2.2.6-15.5.el6
  libxslt.i686 0:1.1.26-2.el6_3.1
  unixODBC.i686 0:2.2.14-12.el6_3

Complete!
[root@centos-63 ~]#

```

**APC** est un module de cache optimisant le code **PHP** intermédiaire. C'est un système similaire à **eAccelerator** et à **Xcache**. Il est fortement recommandé d'installer un de ces modules pour améliorer la vitesse de livraison des pages **PHP**.

Nous allons installer le module de cache **APC**.

```

[root@centos-63 ~]# yum -y install php-pecl-apc
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: less.cogeco.net
 * extras: less.cogeco.net
 * updates: less.cogeco.net
Setting up Install Process
Resolving Dependencies
...
...
...
Installed:
  php-pecl-apc.i686 0:3.1.9-2.el6

Complete!
[root@centos-63 ~]#

```

On redémarre **Apache2**.

```

[root@centos-63 ~]# /etc/init.d/httpd restart
Arrêt de httpd : [ OK ]
Démarrage de httpd : [ OK ]
[root@centos-63 ~]#

```

Nous rechargeons **http://192.168.1.63/info.php** dans le fureteur. Nous descendons dans la page jusqu'à la sections modules. Plusieurs modules **MySQL** sont maintenant présents.

<b>mysql</b>		
MySQL Support	enabled	
Directive	Local Value	Master Value
<b>mysql.allow_local_infile</b>	On	On
<b>mysql.allow_persistent</b>	On	On
<b>mysql.connect_timeout</b>	60	60
<b>mysql.default_host</b>	<i>no value</i>	<i>no value</i>
<b>mysql.default_password</b>	<i>no value</i>	<i>no value</i>
<b>mysql.default_port</b>	<i>no value</i>	<i>no value</i>
<b>mysql.default_socket</b>	/var/lib/mysql/mysql.sock	/var/lib/mysql/mysql.sock
<b>mysql.default_user</b>	<i>no value</i>	<i>no value</i>
<b>mysql.max_links</b>	Unlimited	Unlimited
<b>mysqlmax_persistent</b>	Unlimited	Unlimited
<b>mysql.trace_mode</b>	Off	Off

<b>mysqli</b>		
Mysqli Support	enabled	
Directive	Local Value	Master Value
<b>mysqli.allow_local_infile</b>	On	On
<b>mysqli.allow_persistent</b>	On	On
<b>mysqli.default_host</b>	<i>no value</i>	<i>no value</i>
<b>mysqli.default_port</b>	3306	3306
<b>mysqli.default_pw</b>	<i>no value</i>	<i>no value</i>
<b>mysqli.default_socket</b>	<i>no value</i>	<i>no value</i>
<b>mysqli.default_user</b>	<i>no value</i>	<i>no value</i>
<b>mysqli.max_links</b>	Unlimited	Unlimited
<b>mysqli.max_persistent</b>	Unlimited	Unlimited
<b>mysqli.reconnect</b>	Off	Off

pdo_mysql	
PDO Driver for MySQL	enabled
Client API version	5.1.66

## 14. phpMyAdmin

### 14.1. Prérequis

[phpMyAdmin](#) est un interface web pour la gestion des bases de données **MySQL**.

Nous débutons par activer le dépôt [RPMforge repository](#) car **phpMyAdmin** n'est pas disponible dans le dépôt officiel de **CentOS-6.3**.

#### 14.1.1. Importation de la clé GPG de RPMforge.

```
[root@centos-63 ~]# rpm --import http://dag.wieers.com/rpm/packages/RPM-GPG-KEY.dag.txt
[root@centos-63 ~]#
```

Pour les système **x86\_64**:

```
[root@centos-63 ~]# yum install \
http://pkgs.repoforge.org/rpmforge-release/rpmforge-release-0.5.2-2.el6.rf.x86_64.rpm
```

Pour les systèmes **i386**:

```
[root@centos-63 ~]# yum -y install \
http://pkgs.repoforge.org/rpmforge-release/rpmforge-release-0.5.2-2.el6.rf.i686.rpm

Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: less.cogeco.net
 * extras: less.cogeco.net
 * updates: less.cogeco.net
Setting up Install Process
rpmforge-release-0.5.2-2.el6.rf.i686.rpm | 12 kB     00:00
Examining /var/tmp/yum-root-ncU09Q/rpmforge-release-0.5.2-2.el6.rf.i686.rpm: rpmforge-
release-0.5.2-2.el6.rf.i686
Marking /var/tmp/yum-root-ncU09Q/rpmforge-release-0.5.2-2.el6.rf.i686.rpm to be installed
Resolving Dependencies
--> Running transaction check
--> Package rpmforge-release.i686 0:0.5.2-2.el6.rf will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package           Arch   Version        Repository      Size
=====
Installing:
rpmforge-release i686   0.5.2-2.el6.rf   /rpmforge-release-0.5.2-2.el6.rf.i686 13 k

Transaction Summary
=====
Install       1 Package(s)

Total size: 13 k
Installed size: 13 k
Downloading Packages:
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
```

```

Running Transaction
  Installing : rpmforge-release-0.5.2-2.el6.rf.i686                               1/1
  Verifying  : rpmforge-release-0.5.2-2.el6.rf.i686                               1/1

Installed:
  rpmforge-release.i686 0:0.5.2-2.el6.rf

Complete!
[root@centos-63 ~]#

```

## 14.2. Installation

Maintenant que nous avons la clé GPG de **RPMforge**, **phpMyAdmin** peut être installé.

```

[root@centos-63 ~]# yum -y install phpmyadmin
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: less.cogeco.net
 * extras: less.cogeco.net
 * rpmforge: apt.sw.be
 * updates: less.cogeco.net
rpmforge                                                 | 1.9 kB      00:00
rpmforge/primary_db                                    | 2.6 MB      00:12
Setting up Install Process
Resolving Dependencies
--> Running transaction check
--> Package phpmyadmin.noarch 0:2.11.11.3-2.el6.rf will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package          Arch      Version       Repository      Size
=====
Installing:
phpmyadmin        noarch    2.11.11.3-2.el6.rf      rpmforge      2.7 M

Transaction Summary
=====
Install     1 Package(s)

Total download size: 2.7 M
Installed size: 13 M
Downloading Packages:
Setting up and reading Presto delta metadata
Processing delta metadata
Package(s) data still to download: 2.7 M
phpmyadmin-2.11.11.3-2.el6.rf.noarch.rpm           | 2.7 MB      00:14
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : phpmyadmin-2.11.11.3-2.el6.rf.noarch                               1/1
  Verifying  : phpmyadmin-2.11.11.3-2.el6.rf.noarch                               1/1

Installed:
  phpmyadmin.noarch 0:2.11.11.3-2.el6.rf

Complete!
[root@centos-63 ~]#

```

## 14.3. Configuration

### 14.3.1. phpmyadmin.conf

Nous changeons la configuration d'**Apache** pour que **phpMyAdmin** permette les connections autres que celles depuis l'hôte local.

Pour ce faire, nous mettons en commentaire la section `<Directory /usr/share/phpmyadmin>` au complet.

```
vim /etc/httpd/conf.d/phpmyadmin.conf
```

```
#  
# Web application to manage MySQL  
#  
  
#<Directory "/usr/share/phpmyadmin">  
# Order Deny,Allow  
# Deny from all  
# Allow from 127.0.0.1  
#</Directory>  
  
Alias /phpmyadmin /usr/share/phpmyadmin  
Alias /phpMyAdmin /usr/share/phpmyadmin  
Alias /mysqladmin /usr/share/phpmyadmin
```

On vérifie.

```
[root@centos-63 ~]# cat /etc/httpd/conf.d/phpmyadmin.conf  
#  
# Web application to manage MySQL  
#  
  
#<Directory "/usr/share/phpmyadmin">  
# Order Deny,Allow  
# Deny from all  
# Allow from 127.0.0.1  
#</Directory>  
  
Alias /phpmyadmin /usr/share/phpmyadmin  
Alias /phpMyAdmin /usr/share/phpmyadmin  
Alias /mysqladmin /usr/share/phpmyadmin  
[root@centos-63 ~]#
```

### 14.3.2. config.inc.php

Nous changeons la méthode d'authentification de **cookie** à **http**.

```
vim /usr/share/phpmyadmin/config.inc.php
```

Méthode d'authentification originale.

```
/* Authentication type */  
$cfg['Servers'][$i]['auth_type'] = 'cookie';
```

Nouvelle méthode d'authentification.

```
/* Authentication type */  
$cfg['Servers'][$i]['auth_type'] = 'http';
```

On vérifie.

```
[root@centos-63 ~]# cat /usr/share/phpmyadmin/config.inc.php |grep auth_type
$cfg['Servers'][$i]['auth_type'] = 'http';
[root@centos-63 ~]#
```

### 14.3.3. Apache

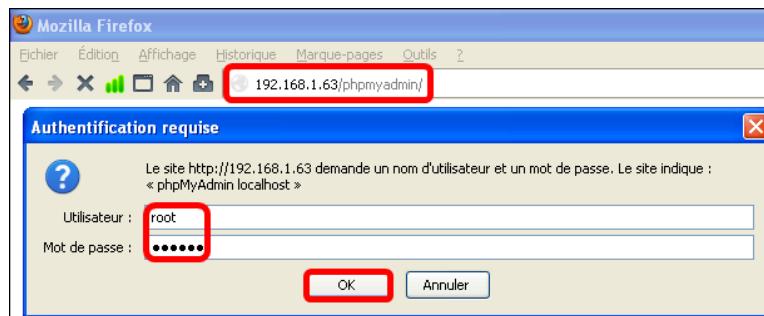
On redémarre Apache.

```
[root@centos-63 ~]# /etc/init.d/httpd restart
Arrêt de httpd : [ OK ]
Démarrage de httpd : [ OK ]
[root@centos-63 ~]#
```

## 14.4. Vérification

On essaie de se loguer en se rendant à <http://192.168.1.63/phpmyadmin/>.

On entre le nom d'usager et son mot de passe.



Nous sommes bien logués.

Voilà, le serveur minimal **CentOS-63** est prêt à être utilisé à son plein potentiel.



*Victoire totale, hissons la bannière de la victoire.*

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

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