

1 Instalación de Servidor Linux con CentOS

1.1 Sumario

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1.2 Instalación de CentOS 5.2 parte I

Arrancar có CD-ROM ou DVD do CentOS e presionar ENTER cando apareza o o prompt:



Pode levar un pouco o testear o medio onde está o CentOS polo que saltaremos esa opción:

Welcome to CentOS





<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

A pantalla de bienvenida do instalador aparecerá, pulsamos en Next:

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A continuación escollemos o linguaxe:

CentOS 5



What language would you like to use during the installation process?

Chinese(Simplified) (简体中文)

Chinese(Traditional) (繁體中文)

Croatian (Hrvatski)

Czech (Čeština)

Danish (Dansk)

Dutch (Nederlands)

English (English)

Estonian (eesti keel)


Finnish (suomi)


French (Français)

German (Deutsch)

Greek (Ελληνικά)

Gujarati (ગુજરાતી)

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Seleccionamos o tipo de teclado:



Select the appropriate keyboard for the system.

French (latin9)

French (pc)

French Canadian

German

German (latin1 w/ no deadkeys)

German (latin1)

Greek

Gujarati (Inscript)

Hungarian

Hungarian (101 key)

Icelandic

Italian

Italian (IBM)

Italian (it2)



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Estamos instalando CentOS 5.2 nun sistema novo, polo que responderemos Yes a cuestión sobre si queremos inicializar o disco e tódolos seus datos.



Select the appropriate keyboard for the system.

- French (latin9)
- French (pc)
- French Canadian
- German
- German (latin1 w/ n)
- German (latin1)
- Greek
- Gujarati (Inscript)
- Hungarian
- Hungarian (101 key)
- Icelandic
- Italian
- Italian (IBM)
- Italian (it2)


Warning


 The partition table on device sda was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on this drive.

This operation will override any previous installation choices about which drives to ignore.

Would you like to initialize this drive, erasing ALL DATA?


No Yes

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Agora temos que seleccionar un esquema de particións para a instalación. Para simplificar o proceso seleccionamos a opción de eliminar as particións de linux e instalar coa plantilla por defecto. Isto resultará nun pequeno /boot e unha partición máis longa / así como a partición de swap. Dende logo que tamén teremos a liberdade de particionar o disco duro como queiramos.

Installation requires partitioning of your hard drive. By default, a partitioning layout is chosen which is reasonable for most users. You can either choose to use this or create your own.


Remove linux partitions on selected drives and create default layout. 


Select the drive(s) to use for this installation.

sda 30718 MB VMware, VMware Virtual S

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Respondemos con Yes a pregunta de si queremos hacer iso:

Installation requires partitioning of your hard drive. By default, a partitioning layout is chosen which is reasonable for most users. You can either choose to use this or create

Remove linux partit

Select the drive

<input checked="" type="checkbox"/>	sda	307
-------------------------------------	-----	-----



Warning



You have chosen to remove all Linux partitions (and ALL DATA on them) on the following drives:

/dev/sda

Are you sure you want to do this?

No

Yes

Review and modify partitioning layout

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Na configuración de rede. A configuración por defecto é configurar as interfaces de rede por DHCP, pero estamos instalando un servidor, polo que a configuración estática de direccións IP non é unha mala idea. Pulsaremos na opción Edit na parte superior dereita.

Network Devices

Active on Boot	Device	IPv4/Netmask	IPv6/Prefix
<input checked="" type="checkbox"/>	eth0	DHCP	Auto

Edit

Hostname

Set the hostname:

automatically via DHCP


manually (e.g., host.domain.com)


Miscellaneous Settings

Gateway:

Primary DNS:

Secondary DNS:

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Na ventana que se amosa desmarcamos a opción de Usar Configuración IP dinámica (DHCP) , habilitamos si o desexamos soporte IPV6 e dámoslle á tarxeta de rede unha dirección IP estática (neste caso imos a empregar a dirección 192.168.0.100) e unha máscara clase C (255.255.255.0). Si non estamos seguros da máscara a empregar na páxina <http://www.subnetmask.info>

Network Devl

Active on Boot

Hostname

Set the hostname

automatica

manually

Miscellaneous

Gateway:

Primary DNS:

Secondary DNS:

Edit Interface

Advanced Micro Devices [AMD] 79c970 [PCnet32 LANCE]
Hardware address: 00:0C:29:B1:97:E1

Enable IPv4 support

- Dynamic IP configuration (DHCP)
- Manual configuration

IP Address: / Prefix (Netmask):

Enable IPv6 support

- Automatic neighbor discovery
- Dynamic IP configuration (DHCPv6)
- Manual configuration

IP Address: / Prefix:

Pomos o nome do host manualmente, exemplo server1.example.com, e introducimos o gateway (192.168.0.1) e ata dous servidores DNS (exemplo 213.191.92.86 e 145.253.2.75):

Network Devices

Active on Boot	Device	IPv4/Netmask	IPv6/Prefix
<input checked="" type="checkbox"/>	eth0	192.168.0.100/24	Disabled

[Edit](#)

Hostname

Set the hostname:

automatically via DHCP

manually (e.g., host.domain.com)

Miscellaneous Settings

Gateway:

Primary DNS:

Secondary DNS:

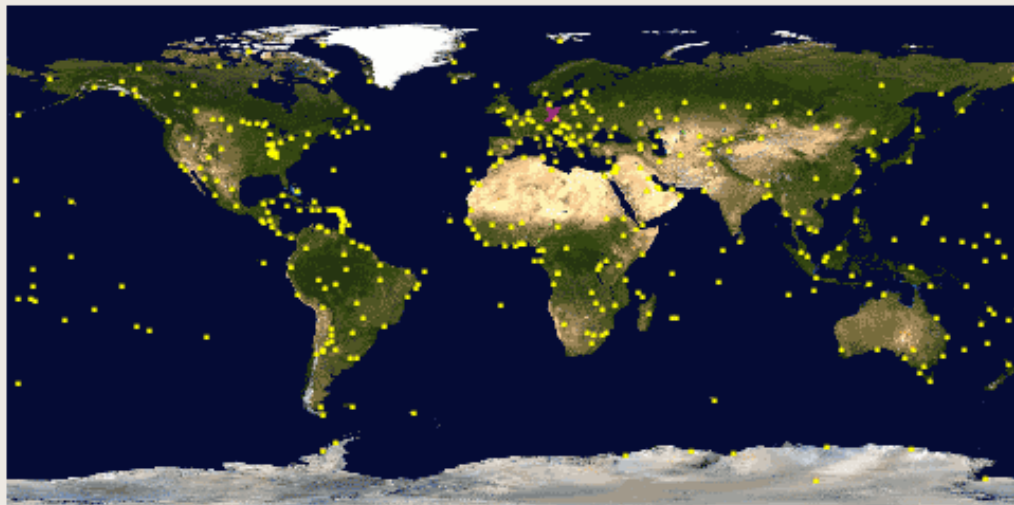
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Eleximos a zona horaria:


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Please click into the map to choose a region:



Europe/Berlin

System clock uses UTC

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Introducimos unha clave de root:



The root account is used for administering the system. Enter a password for the root user.

Root Password:

Confirm:



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1.3 Instalación de CentOS 5.2 parte II

Agora seleccionamos os paquetes de software que desexamos instalar. Desmarcamos todo e deixamos soamente a opción Server. Marcamos a continuación a opción de Customize Now e pulsamos en Next:

The default installation of CentOS includes a set of software applicable for general internet usage. What additional tasks would you like your system to include support for?

- Desktop - Gnome
- Desktop - KDE
- Server
- Server - GUI

Please select any additional repositories that you want to use for software installation.

- Packages from CentOS Extras

[+ Add additional software repositories](#)

You can further customize the software selection now, or after install via the software management application.

- Customize later Customize now

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Agora deberemos seleccionar o grupo de paquetes que desexamos instalar. Seleccionamos Editors, Text-based Internet, Development Libraries, Development Tools, DNS Name Server, FTP Server, Mail Server, MySQL Database, Server Configuration Tools, Web Server, Administration Tools, Base, e System Tools (desmarcamos o resto de paquetes) e pulsamos en Next:

Desktop Environments

Applications

Development

Servers

Base System

Virtualization

Clustering

Cluster Storage

DNS Name Server

FTP Server

Legacy Network Server

Mail Server

MySQL Database


Network Servers


News Server

This package group allows you to run a DNS name server (BIND) on the system.

1 of 1 optional package selected

Optional packages

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O instalador chequeará as dependências entre os diferentes pacotes:

Desktop Environments

Applications

Development

Servers

Base System

Virtualization

Clustering

Cluster Storage

DNS Name Server

FTP Server

Legacy Network Server

Mail Server

Database

Servers

ver


Checking dependencies in packages selected for installation...




This package group allows you to run a DNS name server (BIND) on the system.

1 of 1 optional package selected

Optional packages

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Pulsamos en Next para comenzar a instalación:


CentOS 5




Click next to begin installation of CentOS.

A complete log of the installation can be found in the file `'/root/install.log'` after rebooting your system.

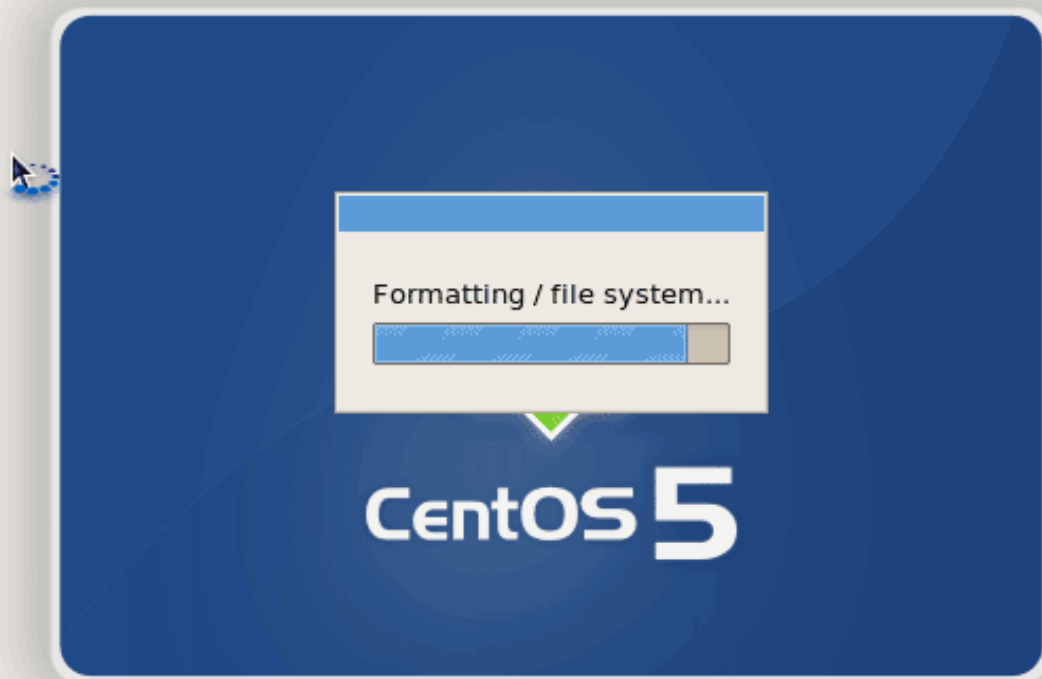
A kickstart file containing the installation options selected can be found in the file `'/root/anaconda-ks.cfg'` after rebooting the system.


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O disco duro está sendo formatado:

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A instalación comenza, tardará uns minutos:



CentOS Repositories


The following repositories exist in CentOS to install software from:


[base] (aka **[os]**) - The RPMS released on a CentOS ISO.
[updates] - Updates to the [base] repository.
[extras] - Items by CentOS that are not upstream (does upgrade [base]).
[centosplus] - Items by CentOS that are not upstream (does upgrade [base]).
[testing] - Items in testing, beta quality packages.

More info: <http://mirror.centos.org/centos/5/Readme.txt>

Installing xorg-x11-xauth-1.0.1-2.1.i386 (48 KB)
X.Org X11 X authority utilities

Remaining time: 1

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Finalmente, a instalación está completada e xa podemos sacar o CD ou DVD de ordenador e reiniciar:



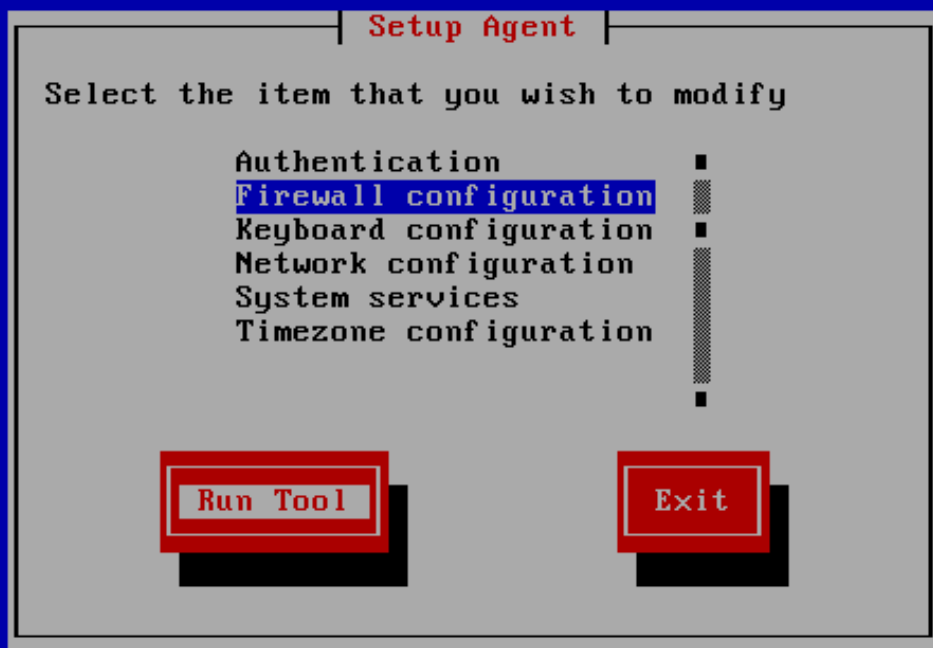
Congratulations, the installation is complete.

Remove any media used during the installation process and press "Reboot" button to reboot your system.

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Despois do reboot veremos a seguinte pantalla. Seleccionaremos configuración do Firewall e executaremos a ferramenta:

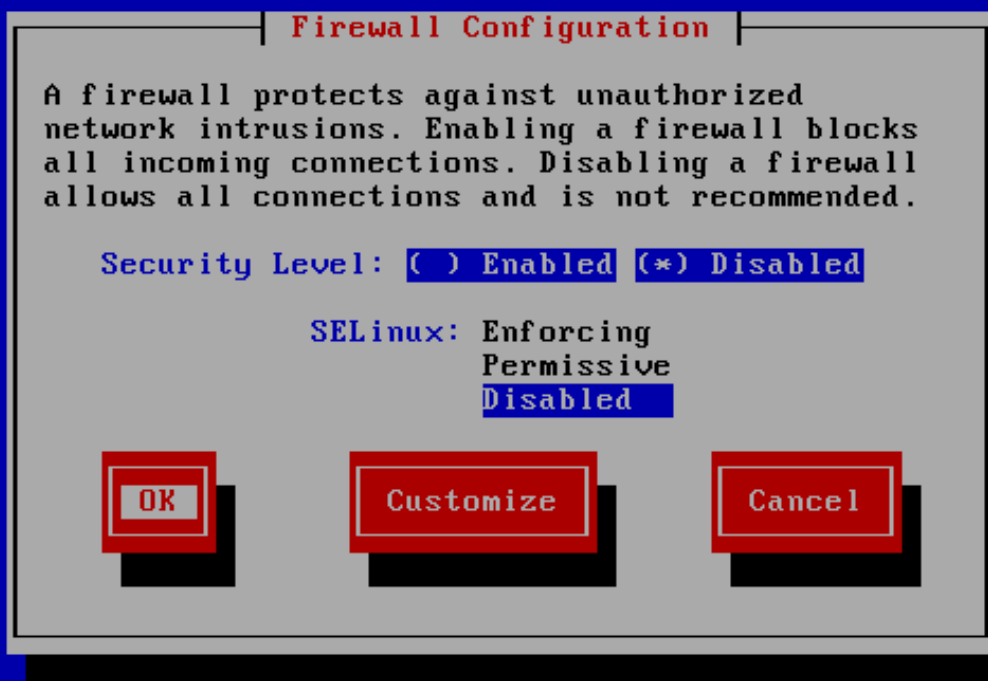


<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

Deshabilitaremos o firewall do CentOS e tamén SELinux o cal proporciona seguridade estendida.

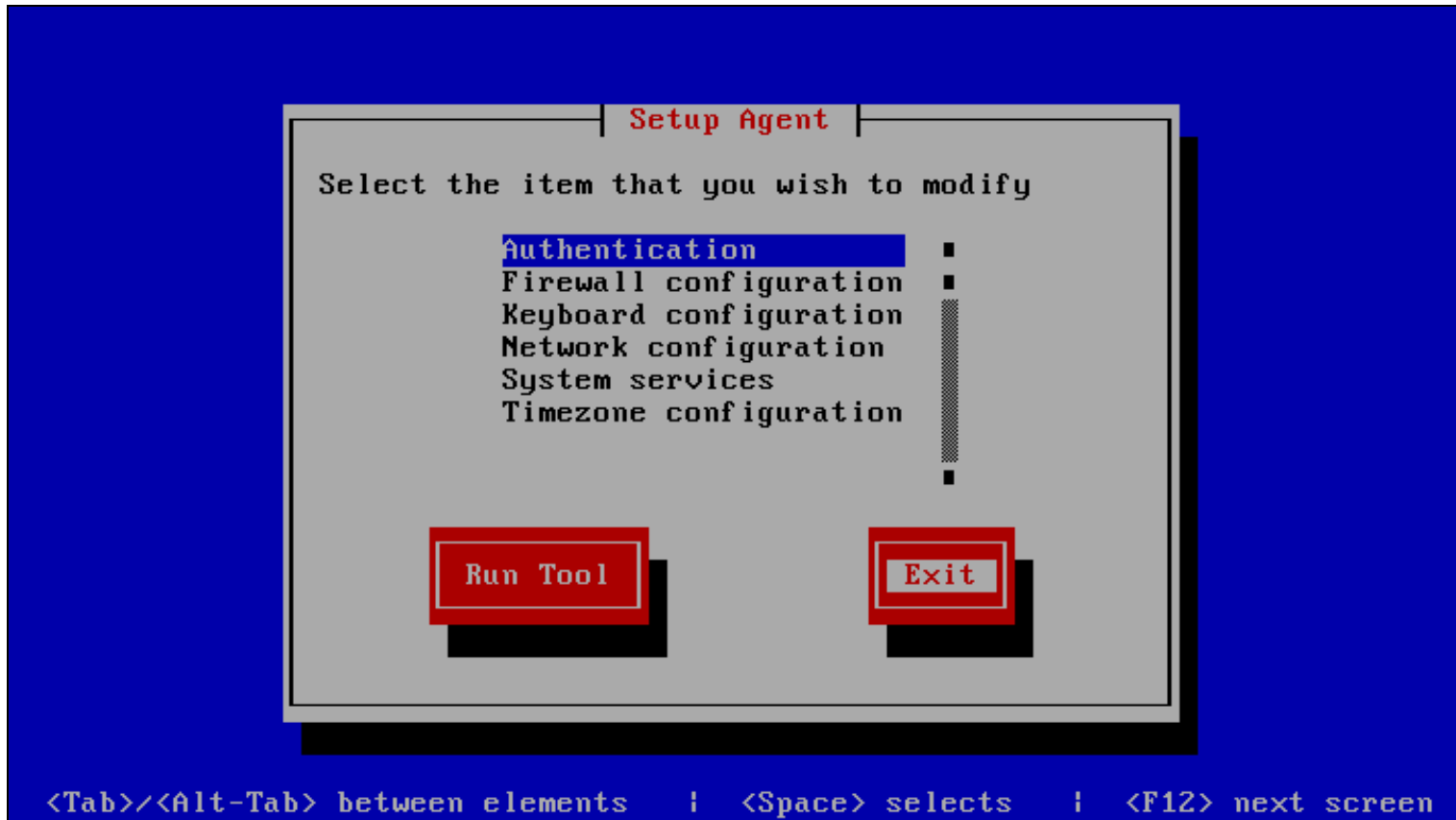
system-config-securitylevel

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<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen

Pulsaremos Exit para salir do axente de configuración:



A continuación entramos como root e reiniciaremos o sistema para que se apliquen os cambios:

```
reboot
```

Imos agora á configuración....

1.4 Instalación de CentOS 5.2 parte III

Axustamos /etc/hosts

Editamos o arquivo /etc/hosts para que sexa semellante ó seguinte:

```
vi /etc/hosts
```

```
# Do not remove the following line, or various programs
# that require network functionality will fail.
127.0.0.1          localhost.localdomain localhost
192.168.0.100     server1.example.com server1
::1               localhost6.localdomain6 localhost6
```

Configuramos direccións IP adicionais.

(Esta sección é opcional. Soamente amosa como engadir direccións IP adicionais á interface de rede eth0 no caso que necesitamos máis de unha dirección IP. Si non necesitamos máis direccións IP podemos saltar esta sección.)

Asumimos que a nosa interface de rede é eth0. Polo tanto hai un arquivo /etc/sysconfig/network-scripts/ifcfg-eth0 o cal contén as configuracións para eth0. Podemos usar este arquivo para configurar unha nova interface de rede virtual eth0:0:

```
cp /etc/sysconfig/network-scripts/ifcfg-eth0 /etc/sysconfig/network-scripts/ifcfg-eth0:0
```

Agora queremos usar a dirección IP 192.168.0.101 na interface virtual eth0:0. Polo tanto abriremos ese arquivo /etc/sysconfig/network-scripts/ifcfg-eth0:0 e o modificamos do seguinte xeito (podemos deixar o apartado HWADDR xa que é a mesma dirección física da tarxeta):

```
vi /etc/sysconfig/network-scripts/ifcfg-eth0:0

# Advanced Micro Devices [AMD] 79c970 [PCnet32 LANCE]
DEVICE=eth0:0
BOOTPROTO=static
BROADCAST=192.168.0.255
IPADDR=192.168.0.101
NETMASK=255.255.255.0
NETWORK=192.168.0.0
ONBOOT=yes
```

Despois disto temos que reiniciar os servicios de rede:

```
/etc/init.d/network restart
```

Tamén podemos axustar o arquivo /etc/hosts despois de engadir a nova dirección IP, aínda que isto non é necesario.

Agora executamos

```
ifconfig
```

Deberíamos ver a nova dirección IP na saída:

```
[root@server1 ~]# ifconfig
eth0      Link encap:Ethernet  HWaddr 00:0C:29:B1:97:E1
          inet addr:192.168.0.100  Bcast:192.168.0.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:febl:97e1/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:310 errors:0 dropped:0 overruns:0 frame:0
          TX packets:337 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:28475 (27.8 KiB)  TX bytes:72116 (70.4 KiB)
          Interrupt:177 Base address:0x1400

eth0:0    Link encap:Ethernet  HWaddr 00:0C:29:B1:97:E1
          inet addr:192.168.0.101  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          Interrupt:177 Base address:0x1400

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:8 errors:0 dropped:0 overruns:0 frame:0
          TX packets:8 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:560 (560.0 b)  TX bytes:560 (560.0 b)

[root@server1 ~]#
```

Instalación de algún software

Primeiro importamos as claves CPG para os paquetes de software:

```
rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY*
```

A continuación actualizamos os paquetes actuais do sistema:

```
yum update
```

Instalamos os seguintes paquetes que necesitaremos máis adiante:

```
yum install fetchmail wget bzip2 unzip zip nmap openssl lynx fileutils ncftp gcc gcc-c++
```

Install A Chrooted DNS Server (BIND9)

Para instalar BIND9 chrooted faremos o seguinte:

```
yum install bind-chroot
```

A continuación:

```
chmod 755 /var/named/  
chmod 775 /var/named/chroot/  
chmod 775 /var/named/chroot/var/  
chmod 775 /var/named/chroot/var/named/  
chmod 775 /var/named/chroot/var/run/  
chmod 777 /var/named/chroot/var/run/named/  
cd /var/named/chroot/var/named/  
ln -s ../../ chroot  
cp /usr/share/doc/bind-9.3.4/sample/var/named/named.local /var/named/chroot/var/named/named.local  
cp /usr/share/doc/bind-9.3.4/sample/var/named/named.root /var/named/chroot/var/named/named.root  
touch /var/named/chroot/etc/named.conf  
chkconfig --levels 235 named on  
/etc/init.d/named start
```

BIND se executará a continuación baixo `/var/named/chroot/var/named/`.

MySQL (5.0)

Para instalar MySQL faremos o seguinte:

```
yum install mysql mysql-devel mysql-server
```

A continuación creamos o enlace para que arranque có sistema:

```
chkconfig --levels 235 mysqld on  
/etc/init.d/mysqld start
```

Agora chequeamos que a rede está habilitada e executamos:

```
netstat -tap | grep mysql  
</source>
```

E debería aparecer algo como:

```
<source lang=bash>  
[root@server1 ~]# netstat -tap | grep mysql  
tcp        0      0 *:mysql      *:*          LISTEN     2584/mysqld  
[root@server1 ~]#
```

Si non aparece, editaremos `/etc/my.cnf` e comentamos a opción `skip-networking`:

```
vi /etc/my.cnf  
  
[...]  
#skip-networking  
[...]
```

e reiniciamos o servidor de MySQL:

```
/etc/init.d/mysqld restart
```

Executamos:

```
mysqladmin -u root password yourrootsqlpassword  
mysqladmin -h server1.example.com -u root password yourrootsqlpassword
```


para modificar a password do user root (noutro caso calqueira podería acceder á base de datos MySQL).

1.5 Instalación de CentOS 5.2 parte IV

Apache2 con PHP

Agora instalamos Apache con PHP (PHP 5.1.6):

```
yum install php php-devel php-gd php-imap php-ldap php-mysql php-odbc  
php-pear php-xml php-xmlrpc curl curl-devel perl-libwww-perl  
ImageMagick libxml2 libxml2-devel
```

A continuación editamos /etc/httpd/conf/httpd.conf:

```
vi /etc/httpd/conf/httpd.conf
```

e modificamos DirectoryIndex a

```
[...]  
DirectoryIndex index.html index.htm index.shtml index.cgi index.php index.php3 index.pl  
[...]
```

Configuramos a continuación o sistema para que o Apache arranque no inicio:

```
chkconfig --levels 235 httpd on
```

Arrancamos Apache:

```
/etc/init.d/httpd start
```

Sincronizamos o reloxo do sistema

Si queremos deixar o reloxo do sistema sincronizado cun servidor de hora NTP faremos o seguinte:

```
yum install ntp  
  
chkconfig --levels 235 ntpd on  
ntpdate 0.pool.ntp.org  
/etc/init.d/ntpd start
```

Instalaremos algúns módulos Perl adicionais

```
yum install perl-HTML-Parser perl-DBI perl-Net-DNS perl-Digest-SHA1
```