Linux Installation

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Language Selection

Choose the language you would like to use during this Red Hat Linux installation.

- Chinese (Simplified)
- Chinese (Traditional)
- Czech
- Danish
- English
- French
- German
- Hungarian
- Icelandic
- Italian
- Japanese
- Korean
- Norwegian
- Portuguese
- Romanian
- Russian
- Serbian
- Slovak
- Slovenian
- Spanish
- Swedish
- Turkish
- Ukrainian

- Online Help
- Language Selection

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

Choose your exact keyboard model if it is listed. If you cannot find an exact match, choose the closest Generic match (for example, Generic 101-key PC).

Hint: A 101-key keyboard is a generic keyboard. A 104-key or 105-key keyboard is a keyboard designed to work with MS Windows 95 and features keys such as Home, End, Page Up, and Page Down.

Choose the layout type for your keyboard (for example, U.S. English).

Entering special characters (such as ¿, Ö, and Ç) is done using "dead keys" (or compose key sequences). If you wish to use special characters requiring the

Dead Keys

Disable dead keys
Enable dead keys
Mouse Configuration

Choose the correct mouse type for your system.

Do you have a PS/2, Bus or serial mouse? (Hint: if the connector your mouse plugs into is round, it is a PS/2 or a Bus mouse; if rectangular, it is a serial mouse.)

Try to find an exact match. If an exact match cannot be found, choose one which is compatible with yours. Otherwise, choose the appropriate Generic mouse type.

If you have a serial mouse, pick the device and port it is connected to in the next box.

In Red Hat Linux, the graphical environment (X Window System) is designed to make use of a three-button mouse. If you have a
Installation Type

**Install Options**

Choose whether you would like to perform a full installation or an upgrade.

A full installation will destroy any previously saved information on the selected partitions.

An upgrade will preserve existing Red Hat Linux system data.

If you want to perform a full installation, you must choose the class (or type) of the installation. Your options (Workstation, Server, Laptop, or Custom) are discussed briefly below.

A workstation installation will create a system for your home or desktop use. A graphical, Windows-like environment will be installed.

If you want your system to function
Partitioning Strategy

Choosing Your Partitioning Strategy

One of the largest obstacles for a new user during a Linux installation is partitioning. Red Hat Linux makes this process much simpler by providing an option for automatic partitioning.

By selecting automatic partitioning, you will not have to use partitioning tools to assign mount points, create partitions, or allocate space for your installation.

To partition manually, choose either the Disk Druid or fdisk (recommended for experts only) partitioning tool.

Use the Back button to choose a different installation, or choose Next if you want to proceed with:

- Have the installer automatically partition for you
- Manually partition with Disk Druid
- Manually partition with fdisk (experts only)
Automatic Partitioning

Before automatic partitioning can be set up by the installation program, you must choose how to use the space on hard drives.

I want to have automatic partitioning:

- Remove all Linux partitions on this system
- Remove all partitions on this system
- Keep all partitions and use existing free space

Which drive(s) do you want to use for this installation?

硬盘: WDC AC34000L - 3815 MB

[ ] Review (allows you to see and change the automatic partitioning results)
Disk Druid

### Partitions

Choose where you would like Red Hat Linux to be installed.

If you do not know how to partition your system, please read the section on partitioning in the Red Hat Linux Installation Guide.

If you used automatic partitioning, you can either accept the current partition settings (click **Next**), or modify the setup using Disk Druid, the manual partitioning tool.

If you just finished partitioning with `fdisk`, you must define **mount points** for your partitions. Use the **Edit** button, once you have chosen a partition, to define its mount point.

If you are manually partitioning your system (using Disk Druid), you will see your current hard drive(s) and partitions displayed below. Use the partitioning tools to:

<table>
<thead>
<tr>
<th>Device</th>
<th>Start</th>
<th>End</th>
<th>Size (MB)</th>
<th>Type</th>
<th>Mount Point</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>/dev/hda1</td>
<td>1</td>
<td>13</td>
<td>51</td>
<td>ext3</td>
<td>/boot</td>
<td>Yes</td>
</tr>
<tr>
<td>/dev/hda2</td>
<td>14</td>
<td>333</td>
<td>3022</td>
<td>ext3</td>
<td>/</td>
<td>Yes</td>
</tr>
<tr>
<td>/dev/hda3</td>
<td>334</td>
<td>903</td>
<td>142</td>
<td>swap</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>
fdisk

- It is manually
- m : print help
- n : create new partition
- d : delete new partition
- t : changes a partition system id
- l : list known partition types
- p : print partition table
- q : quit without saving changes
- w : write table to disk and exit
Mounting Partitions

![Configuration window for mounting partitions](Image)
Boot Loader Installation

New to Red Hat Linux 7.2, GRUB is a software boot loader that can be used to start Red Hat Linux on your computer. It can also start other operating systems, such as Windows 9x. Here, you’ll be asked how (or whether) you want to configure a boot loader and which one (GRUB or LILO).

Choose which boot loader you want to install. If you would rather use the legacy boot loader, LILO, make sure it is selected instead of GRUB. If you choose not to install a boot loader, make sure you create a boot disk or have another way to boot your Red Hat Linux system.

To install a boot loader, select where you want to install it. If your system will use only Red Hat Linux...

partition: /dev/hda2  type: ext3

default device partition type boot label

/dev/hda2  ext3  Red Hat Linux
GRUB Password

Now that you have chosen to install GRUB as your boot loader, you should create a password to protect your system. Users can pass options to the kernel which can compromise your system security.

To enhance your system security, you should select Use a Grub Password.

Once selected, enter in a password and then confirm it.

A GRUB password prevents users from passing arbitrary options to the kernel. For highest security, we recommend setting a password, but this is not necessary for more casual users.

Password: [*****]
Confirm: [*****]

Password accepted.
# Network Configuration

Choose your network card and whether you would like to configure using DHCP. If you have multiple Ethernet devices, each device will have its own configuration screen. You can switch between device screens, (for example eth0 and eth1), the information you give will be specific to each screen. If you select *Activate on boot*, your network card will be started when you boot.

If you do not have DHCP client access or are unsure as to what this information is, please contact your Network Administrator.

Next enter, where applicable, the IP Address, Netmask, Network, and Broadcast addresses. If you are unsure about any of these.

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Address</td>
<td>192.168.0.1</td>
</tr>
<tr>
<td>Netmask</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td>Network</td>
<td>192.168.0.254</td>
</tr>
<tr>
<td>Broadcast</td>
<td>192.168.0.1</td>
</tr>
<tr>
<td>Hostname</td>
<td>sparky.redhat.com</td>
</tr>
<tr>
<td>Gateway</td>
<td>192.168.0.1</td>
</tr>
<tr>
<td>Primary DNS</td>
<td>207.175.42.153</td>
</tr>
<tr>
<td>Secondary DNS</td>
<td></td>
</tr>
<tr>
<td>Tertiary DNS</td>
<td></td>
</tr>
</tbody>
</table>
Firewall Configuration

Red Hat Linux also offers you firewall protection for enhanced system security. A firewall sits between your computer and the network, and determines which resources on your computer remote users on the network are able to access. A properly configured firewall can greatly increase the out-of-the-box security of your system.

Choose the appropriate security level for your system.

**High Security** By choosing High Security, your system will not accept connections that are not explicitly defined by you. By default, only the following connections are allowed:

- DNS replies
- DHCP
- SSH
- Telnet
- WWW (HTTP)
- Mail (SMTP)
- FTP
Language Support

Language Support Selection

Select a language to use as the default language. The default language will be the language used on your Red Hat Linux system once installation is complete. If you choose to install other languages, it is possible to change the default language after the installation.

Red Hat Linux can alternately install and support several languages. To use more than one language on your system, choose specific languages to be installed, or select all languages to have all available languages installed on your Red Hat Linux system.

Use the Reset button to cancel your selections.
Time Zone Configuration

Time Zone Selection

You can set your time zone either by selecting your computer's physical location, or by your time zone's offset from Universal Coordinated Time (also known as UTC).

Notice the two tabs at the top of the screen. The first tab offers you the ability to configure by location. With this option, you can choose your view. In choosing View, your options are: World, North America, South America, Pacific Rim, Europe, Africa, and Asia.

From the interactive map, you can click on a specific city, as indicated by the yellow dots, and a red X will appear at your selection.

You can also scroll through the city list and choose your desired time.
Account Configuration

**Note:** Setting up a root account and password is one of the most important steps during your installation. Your root account enables you to install packages, upgrade RPMs and do most system maintenance. Logging in as root gives you complete control over your system and is very powerful.

Use the root account only for administration. Create a non-root account for your general use and `su` to gain root access when you need to fix something quickly. These basic rules will minimize the chances of a typo or incorrect command doing damage to your system.

Enter a password for the root account. The password must be at least six characters in length.

Enter the password for the root user (administrator) of this system.

**Root Password:** ********

**Confirm:** ********

Root password accepted.

Additional accounts can be created for other users of this system. Such accounts could be for a personal login account, or for other non-administrative users who need to use this system. Use the `Add` button to enter additional user accounts.

<table>
<thead>
<tr>
<th>Account Name</th>
<th>Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angel</td>
<td>Angela Webb</td>
</tr>
</tbody>
</table>

Buttons:
- Add
- Edit
- Delete
- Back
- Next
Authentication Configuration

You can skip this section if you will not be setting up network passwords. If you are unsure, ask your system administrator for assistance.

Unless you are setting up an NIS password, you will notice that both MD5 and shadow are selected. Using both will make your system as secure as possible.

- **Enable MD5 Passwords** allows a long password to be used (up to 256 characters).
- **Use Shadow Passwords** provides a very secure method of retaining passwords for you.
- **Enable NIS** allows you to...
Select Package Group

Selecting Package Groups

Select the package (application) groups that you want to install. To select a package group, click on the check box beside it.

To select individual packages, check the Select individual Packages box at the bottom of the screen.
### Individual Packages

#### Red Hat Linux

![Individual Package Selection](image)

**Package** | **Size (MB)**
---|---
`atiword` | 11
`apel` | 1
`emacs` | 24
`emacs-x11` | 7
`emacs-el` | 24
`emacs-leim` | 4
`emacs-nox` | 3
`gecit` | 1
`hexedit` | 1
`jed` | 1
`jed-common` | 3
`jed-xjed` | 1
`joe` | 1
`nedit` | 1
`nvi-m17n` | 2
`nvi-m17n-canna` | 1
`nvi-m17n-nocanna` | 1
`psgmli` | 1
`quanta` | 14
`sed` | 1

*Total install size: 1,021 MB*

**Emacs-X11** includes the Emacs text editor program for use with the X Window System (it provides support for the mouse and other GUI elements). Emacs-X11 will also run Emacs outside of X, but it has a larger memory footprint than the ‘non-X’ Emacs package (`emacs-nox`).

Install emacs-X11 if you're going to use Emacs with the X Window System. You should also install emacs-X11 if you're going to run Emacs both with and without X (it will work fine both ways). You'll also need to install the emacs package in order to run Emacs.
X Configuration

Video Configuration

Although, the installation program probes to determine the best video card for your system, you can choose another video card if needed.

Once you have selected your video card, choose the amount of video RAM present on your card.

If you decide that the values you have selected are incorrect, use the Restore original values button to return to the suggested probed settings.

You can also choose to Skip X Configuration if you would rather configure X after the installation or not at all.
Installing Packages

We have gathered all the information needed to install Red Hat Linux on your system. It may take a while to install everything, depending on how many packages need to be installed.
Boot Disk Creation

Insert a blank, formatted diskette into your floppy drive, and click Next to continue.

The boot disk allows you to boot your Red Hat Linux system from a floppy diskette.

Please remove any diskettes from the floppy drive and insert a blank diskette. All data will be ERASED during creation of the boot disk.

[Check box forSkip boot disk creation]
Monitor Selection

The installation program will now attempt to detect your monitor to determine your machine's best display settings. If the monitor cannot be detected, choose the monitor that best matches the model attached to this computer from the monitors listed.

You may also enter the horizontal and vertical synchronization ranges for your monitor. These values can be found in the documentation for your display. Be careful when entering these values; if you enter values that fall outside the capabilities of your equipment, you can cause damage to your display. Only enter numbers in these fields if the values in your manual do not match selections in the monitor list and you are certain you have the correct values from your documentation.
Custom X Configuration

Choose the correct color depth and resolution for your X configuration. Click Test Setting to try out this configuration. If you do not like what you are presented with while testing, click No to choose another resolution.

Color Depth is the number of distinct colors that can be represented by a piece of hardware or software. Screen Resolution is the number of dots (pixels) on the entire screen.

If you installed both GNOME and KDE, you can choose which one you would like to be your default desktop environment. Otherwise, it will only show GNOME or KDE as the desktop default.
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- /etc/sysconfig/keyboard
Mouse Configuration

- mouseconfig
- /etc/sysconfig/mouse
X Configuration

- xf86config
- Xconfigurator
- /usr/X11R6/lib/X11/XF86Config
Sound Configuration

- sndconfig
Network Configuration

- netconfig
Modem Configuration

- modemconf
- ln –s /dev/ttyS0 /dev/modem
Printer Configuration

- printtool
Useful Command

- setup
Question?