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# Installing and Setting up WEBppliance™ 3.1 for Linux® (LS) - Manual Installation

December 28, 2002

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*WEBpliance for Linux[LS]\_Installation Guide - Version 3.1.3*





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# About this guide

## Introduction

This guide contains instructions for installing and setting up WEBppliance™ 3.1 for Linux® (LS) on a Red Hat® Linux® 7.2 server. The guide also contains instructions for manually installing Red Hat Linux 7.2, the requisite Red Hat Linux 7.2 updates, and troubleshooting common installation issues.

Chapters in this guide include:

- [Chapter 1, “Preparing for the installation”](#)
- [Chapter 2, “Installing WEBppliance 3.1 for Linux \(LS\)”](#)
- [Chapter 3, “Setting up WEBppliance 3.1 for Linux \(LS\)”](#)
- [Chapter 4, “Troubleshooting installation issues”](#)
- [Appendix A, “Installing Red Hat Linux 7.2”](#)
- [Appendix B, “Customizing disk partitioning”](#)



**Note:** WEBppliance 3.1 for Linux (LS) can be installed only on a Red Hat Linux 7.2 server. [Chapter 2, “Installing WEBppliance 3.1 for Linux \(LS\)”](#) provides a brief overview and basic instructions on installing Red Hat Linux 7.2 and Red Hat Linux 7.2 updates on your server (prior to installing WEBppliance 3.1 for Linux); [Appendix A, “Installing Red Hat Linux 7.2”](#) provides more detailed, step-by-step instructions for the same installation procedures.

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## Intended audience

This document is intended as a complete resource for Service Providers and Appliance Administrators for manually installing and setting up WEBppliance 3.1 for Linux (LS) on Red Hat Linux 7.2 servers.

## Printer-friendly version

This document is presented in HTML and PDF formats. If you are viewing it in HTML and want to print it in a book style, use the PDF version.

## Required skills

To use this guide, you need to be familiar with the Red Hat Linux platform as well as general Internet applications. In addition, you should have some or all of the following skills.

- Experience with networking applications
- Understanding of system security
- Database management experience
- Understanding of DNS

## Related documentation

The following documents provide additional information about WEBppliance 3.1 for Linux. You can find them on the Web at <http://www.ensim.com/support/wpls/index.html>.

- *WEBppliance 3.1.3 for Linux Release Notes*
- *WEBppliance 3.1 for Linux (LS) Technical Reference Guide*

## Additional resources

The following Online Help documents provide additional information about WEBppliance 3.1 for Linux. You can find them on the Web at <http://www.ensim.com/support/wpls/index.html>.

- *WEBppliance 3.1 for Linux Appliance Administrator's Online Help*
- *WEBppliance 3.1 for Linux Reseller Administrator's Online Help*
- *WEBppliance 3.1 for Linux Site Administrator's Online Help*
- *WEBppliance 3.1 for Linux User Administrator's Online Help*

## Document conventions

Throughout this guide, specific fonts are used to identify computer input, output, and interface elements.

Table 1 lists the typographic conventions used in this guide.

**Table 1. Typographic conventions**

Appearance of text	How it is used
Narrow bold text (sans serif font)	Used for button names, column names, field names, file names, keystrokes, menu items, and path names. <i>Example:</i> From the <b>File</b> menu, choose <b>Delete</b> , then click <b>OK</b> .
Bold, italic text (serif font)	Used for information you type. <i>Example:</i> Type <b>cd &lt;directory name&gt;</b> on the command line.
Courier (typewriter-style) font	Used for system messages and screen text. <i>Example:</i> The following message is displayed: The server has been added.

Key information is sometimes displayed using special headings and formats to make it stand out from regular text. The following special headings are used in this guide:



**Tip:** Information to help you perform procedures



**Note:** Supplemental information about tasks or concepts



**Important:** Supplemental information that is more important than a note



**Caution:** Warnings about potential damage to data or systems

## Feedback and support

You can help improve the quality of Ensim documentation.

To take advantage of Ensim's support services or to find technical information quickly, visit the Ensim support page at <http://support.ensim.com>

To obtain the latest product documentation or to utilize Ensim's self-help resources, visit the Ensim product support page at <http://www.ensim.com/support/wpls/index.html>

If you need additional online support or if you would like to provide feedback about Ensim documentation, please enter a CaseConnect ticket at <https://onlinesupport.ensim.com>

# Preparing for the installation

## Introduction

This section describes how to prepare your environment for the installation of WEBppliance 3.1 for Linux (LS).

Topics in this chapter include:

- [“Minimum system requirements” on page 1-1](#)
- [“Web browser requirements” on page 1-2](#)
- [“License requirements” on page 1-2](#)

## About WEBppliance 3.1 for Linux (LS)

WEBppliance 3.1 for Linux is a software appliance designed to automate Web hosting for service providers and their resellers. WEBppliance 3.1 for Linux has four tiers of role-based self-administration control panels. Each tier targets the needs of service providers, resellers, site managers, or end users, providing each role with an easy-to-use interface that streamlines their most common configuration and administration tasks.

## Minimum system requirements

To install WEBppliance 3.1 for Linux (LS) on a Linux server, you must meet the following minimum system requirements.

- Access to the physical server
- Operating system - Red Hat Linux 7.2 operating system with the required packages. See [“Installing Red Hat Linux 7.2 updates” on page 2-4](#) for the list of requisite packages.  
See [“Installing Red Hat Linux 7.2” on page 2-3](#) (Chapter 2), and [Appendix A, “Installing Red Hat Linux 7.2”](#) for more information.
- Red Hat Linux 7.2 updates  
See [“Installing Red Hat Linux 7.2 updates” on page 2-4](#) (Chapter 2) for more information.
- Processor – Pentium® II or III, Class 500 MHz or above or any Intel-compatible CPU of Class 500 MHz or above
- Hard Disk – Minimum 20 GB

- 
- Memory – 128 MB of RAM (we recommend 256 MB)



**Important:** If you install this release with less memory (less than 128 MB RAM), then the WEBppliance 3.1 for Linux installation will fail. If you are planning to run Tomcat as well, you should provision at least 512 MB RAM.

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- Swap partition size – 256 MB or more
- CD-ROM drive
- “root” user access
- Network connectivity

## Web browser requirements

In order to administer the installed WEBppliance 3.1 for Linux, it is recommended that you use any of the following browsers.

- Microsoft® Internet Explorer, version 5.0 or later



**Important:** If you are using Internet Explorer, version 6.0, please verify that you have set your security settings (under Internet Options) to **medium**; otherwise some pages may not display properly.

---

- Netscape® 4.7x or 6.2

Netscape 6.0 and 6.1 are not recommended since performance and functional problems have been experienced in these releases.

## License requirements

If you purchase from our storefront, Ensim will send you your license in a separate email. Each license is valid for a single server only. Save a copy of this license on your local system. You will need the license to reinstall or upgrade WEBppliance 3.1 for Linux (LS) on your server.

# Installing WEBppliance 3.1 for Linux (LS)

## Introduction

This chapter provides instructions for manually installing WEBppliance 3.1 for Linux (LS). The installation of WEBppliance 3.1 for Linux (LS) must be preceded by manual installation of the Red Hat Linux 7.2 operating system and the requisite Red Hat Linux 7.2 updates.

Topics in this section include:

- [“An overview of the installation process” on page 2-1](#)
- [“Installing Red Hat Linux 7.2” on page 2-3](#)
- [“Installing Red Hat Linux 7.2 updates” on page 2-4](#)
- [“Installing WEBppliance 3.1 for Linux \(LS\)” on page 2-8](#)

## An overview of the installation process

The following are the steps involved in installing WEBppliance 3.1 for Linux (LS).

**Step 1:** [Installing Red Hat Linux 7.2](#)

**Step 2:** [Installing Red Hat Linux 7.2 updates](#)

**Step 3:** [Installing WEBppliance 3.1 for Linux \(LS\)](#)

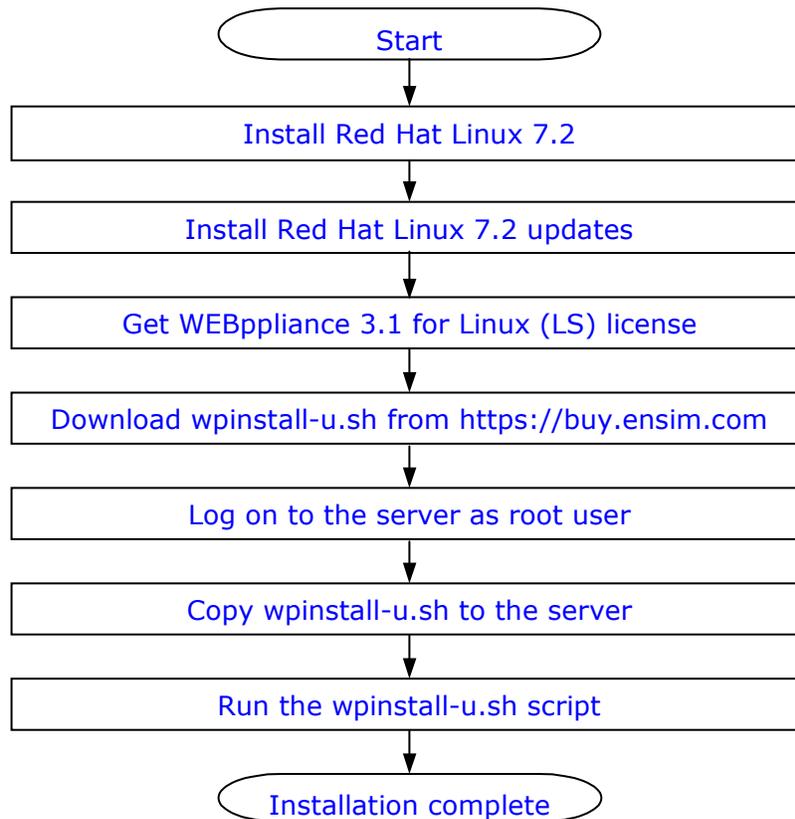
---

The following flow chart provides an overview of the steps involved in installing WEBppliance 3.1 for Linux (LS).



**Note:** The file `wpinstall.sh` refers to the WEBppliance installer for a non-upgradable WEBppliance license. It means, if you have a license for 10 domains and want to upgrade it to 250 or more domains, you will have to re-install WEBppliance with the installer for WEBppliance that supports upgradable WEBppliance license. The file `wpinstall-u.sh` refers to WEBppliance installer for an upgradable WEBppliance license.

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## Installing Red Hat Linux 7.2



1  
Installing Red Hat  
Linux 7.2.

WEBppliance 3.1 for Linux (LS) requires you to install the Red Hat Linux 7.2 operating system on your target server (the server where you will install WEBppliance 3.1 for Linux).



**Note:** The locale for Red Hat Linux 7.2 must be set to **English (US)** ONLY. WEBppliance installation will fail if you set your server to any other locale or select multiple locales. Also, once installed the locale should not be changed, as WEBppliance 3.1 for Linux does not support any operating system locale other than English (US).

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When installing the Red Hat Linux 7.2 operating system, we recommend that you select *only* the following packages.

- Network Support
- Messaging and Web Tools
- DNS Name Server
- Network Managed Workstation
- Software Development



**Important:** The installation of the Red Hat Linux 7.2 operating system must not have the firewall option turned on. When installing the operating system, please verify that you have selected the **No Firewall** option in the firewall configuration page of the Red Hat Linux 7.2 installer.

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Refer to [Appendix A, “Installing Red Hat Linux 7.2”](#) for detailed instructions on manually installing Red Hat Linux 7.2.

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## Installing Red Hat Linux 7.2 updates



After you install Red Hat Linux 7.2 and **before** you begin to install WEBppliance 3.1 for Linux (LS), you must install some additional RPMs.



**Important:** We recommend you install the RPM updates listed in [Table 2-1](#) (or higher). If you attempt to install WEBppliance 3.1 for Linux (LS) without the 'cyrus-sasl' and 'ucd-snmp' updates, the installation will fail.

WEBppliance 3.1 for Linux (LS) does not support Perl 5.6.1. DO NOT update to the latest Red Hat Linux 7.2 release of Perl.

We recommend that you take advantage of all Red Hat published updates by periodically checking the Red Hat Web site (<http://www.redhat.com/>).

If you choose not to install **kernel-2.4.9-34.i386.rpm** or **kernel-smp-2.4.9-34.i686.rpm**, or any of its higher versions, then quotas will not work on WEBppliance 3.1 for Linux. Also, if your server uses Promise IDE RAID cards, then do not download these kernel versions, as these cards support only the 2.4.7-10 kernel version.

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Follow the instructions as given in the procedure below to download the RPM updates.



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### Procedure: To download RPM updates

- 1 Access the Ensim® FTP site:  
[ftp://lwp311\\_install:updates@ftp.ensim.com/resources/webppliance/linux/3.1/rh72\\_updates](ftp://lwp311_install:updates@ftp.ensim.com/resources/webppliance/linux/3.1/rh72_updates)
- 2 Create an empty directory on your local system, and download all the RPMs found at the FTP URL mentioned above.
- 3 Go to the local directory once the download is complete.



**Table 2-1. List of updates tested by Ensim (continued)**

<b>Red Hat Linux 7.2 updates</b>
cyrus-sasl-devel-1.5.24-23.i386.rpm -- -- -- -- -->(REQUIRED)
cyrus-sasl-md5-1.5.24-23.i386.rpm -- -- -- -- -->(REQUIRED)
cyrus-sasl-plain-1.5.24-23.i386.rpm -- -- -- -- -->(REQUIRED)
e2fsprogs-1.26-1.72.i386.rpm
e2fsprogs-devel-1.26-1.72.i386.rpm
gdb-5.1-1.i386.rpm
glibc-2.2.4-24.i386.rpm
glibc-common-2.2.4-24.i386.rpm
glibc-devel-2.2.4-24.i386.rpm
groff-1.17.2-7.0.2.i386.rpm
imap-2001a-1.72.0.i386.rpm
initscripts-6.43-1.i386.rpm
iptables-1.2.4-2.i386.rpm
<i>one of the following kernel rpms</i>
kernel-2.4.9-34.i386.rpm
kernel-smp-2.4.9-34.i686.rpm
<b>Important:</b> If you choose not to install this kernel or any of its higher versions, then quotas will not work on WEBppliance 3.1 for Linux. Also, if your server uses Promise IDE RAID cards, then do not download these kernel versions, as these cards support only the 2.4.7-10 kernel version.
kernel-headers-2.4.9-34.i386.rpm
modutils-2.4.13-0.7.1.i386.rpm -- -- -- -- -->(REQUIRED)
mutt-1.2.5.1-1.i386.rpm
nfs-utils-0.3.1-13.7.2.1.i386.rpm
nscd-2.2.4-19.3.i386.rpm
openldap-2.0.21-1.i386.rpm
openldap-clients-2.0.21-1.i386.rpm
openldap-devel-2.0.21-1.i386.rpm
openssh-3.1p1-2.i386.rpm
openssh-clients-3.1p1-2.i386.rpm

**Table 2-1. List of updates tested by Ensim (continued)**

<b>Red Hat Linux 7.2 updates</b>
openssh-server-3.1p1-2.i386.rpm
pam-0.75-19.i386.rpm
pam-devel-0.75-19.i386.rpm
pine-4.44-1.72.0.i386.rpm
popt-1.6.4-7x.i386.rpm
python-popt-0.8.7-7.x.2.i386.rpm
python-xmlrpc-1.5.1-7.x.3.i386.rpm
raidtools-0.90-24.i386.rpm
rhn_register-2.7.9-7.x.2.i386.rpm
rmt-0.4b25-1.72.0.i386.rpm
rpm-4.0.4-7x.i386.rpm
rpm-build-4.0.4-7x.i386.rpm
rpm-devel-4.0.4-7x.i386.rpm
rpm-python-4.0.4-7x.i386.rpm
stunnel-3.22-1.i386.rpm
tmpwatch-2.8.1-1.i386.rpm
ucd-snmp-4.2.3-1.7.2.3.i386.rpm -- - - - - ->(REQUIRED)
ucd-snmp-utils-4.2.3-1.7.2.3.i386.rpm -- - - - ->(REQUIRED)
up2date-2.7.46-7.x.2.i386.rpm
util-linux-2.11f-17.i386.rpm
vim-common-6.0-7.13.i386.rpm
vim-minimal-6.0-7.13.i386.rpm
XFree86-libs-4.1.0-15.i386.rpm
zlib-1.1.3-25.7.i386.rpm
zlib-devel-1.1.3-25.7.i386.rpm

On completion of the installation of these RPMs, proceed to install WEBppliance 3.1 for Linux (LS).

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## Installing WEBppliance 3.1 for Linux (LS)



Installation of WEBppliance 3.1 for Linux (LS) requires the `wpinstall-u.sh` or `wpinstall.sh` file.



**Important:** The `wpinstall-u.sh/wpinstall.sh` file can be acquired by downloading from <https://buy.ensim.com>. You must copy the downloaded file onto your server in any temporary directory, for example, `/tmp` before you can begin installing the application.

Once you have copied the installation file, you are ready to install WEBppliance 3.1 for Linux on your server.



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### Procedure: To install WEBppliance 3.1 for Linux (LS)

- 1 Go to the Linux server on which you want to install WEBppliance 3.1 for Linux (LS).
- 2 Log on to the server as the root user.



**Important:** In the following set of commands, you must enter the installation file name based on the installation program that you have - either `wpinstall.sh` or `wpinstall-u.sh`.

Please make sure that the scripts have executable attributes. Use the following command to make the scripts executable:

**`chmod +x wpinstall-u.sh/wpinstall.sh`**

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- 
- 3** Enter the following commands on the command line.

```
mkdir /tmp/ensim
cp /tmp/wpinstall.sh (or wpinstall-u.sh) /tmp/ensim
cd /tmp/ensim
./wpinstall.sh (or wpinstall-u.sh)
```

The setup program installs WEBppliance 3.1 for Linux (LS) on your server.

- 4** If the setup is successful, you can clean up /tmp:

```
cd /tmp
rm -rf ensim
```

As soon as the program finishes installing WEBppliance 3.1 for Linux (LS) on your server, you can set up WEBppliance 3.1 for Linux (LS) to suit your server environment. See [Chapter 3, “Setting up WEBppliance 3.1 for Linux \(LS\)”](#) for instructions on setting up WEBppliance 3.1 for Linux (LS).



# Setting up WEBppliance 3.1 for Linux (LS)

## Introduction

This chapter explains how to set up WEBppliance 3.1 for Linux (LS).

Topics in this section include:

- “Setting up WEBppliance 3.1 for Linux (LS)” on page 3-1
- “Opening WEBppliance 3.1 for Linux (LS) as the Appliance Administrator” on page 3-6

## Setting up WEBppliance 3.1 for Linux (LS)

After you install WEBppliance 3.1 for Linux, you can set up it up by registering your license with Ensim, then choosing an Appliance Administrator user name and password.



### Procedure: To set up WEBppliance 3.1 for Linux

- 1 Start a Web browser.
- 2 In the **Address** field of the browser, enter the following URL.

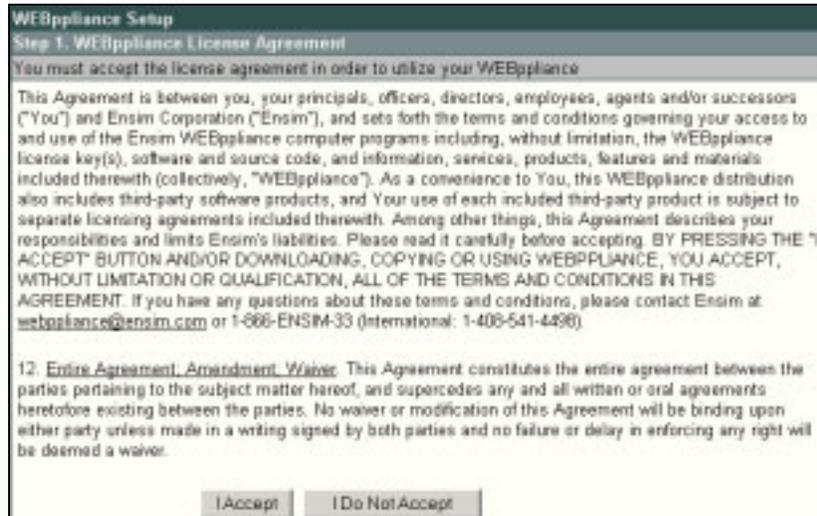
**http://<server host name (or IP address)>**

where *<server host name (or IP address)>* is the host name of the Private Server or Dedicated Server on which you installed WEBppliance 3.1 for Linux.

- 3 On the *WEBppliance Manager* welcome page, click **here**.



- 
- 4 On the *Step 1: License Agreement* page, click **I Accept**.



**Important:** The installation will abort if you do not accept the license agreement.

If you purchase WEBpliance 3.1 for Linux from our Ensim Online Store, Ensim will send your license in a separate email. Each license is valid for a single server only. Save a copy of this license on your local system. You will need the license to reinstall or upgrade WEBpliance for Linux on your server.

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- 
- 5 On the *Step 2: WEBppliance License File* page, register your WEBppliance license using one of the following options: **Upload License File** or **Copy and Paste License File**.



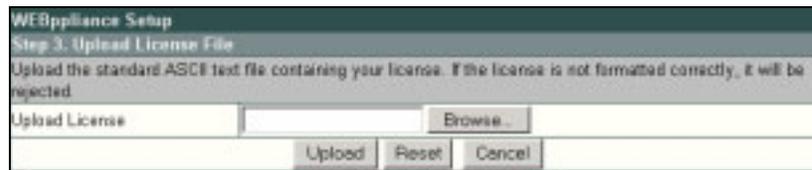
- **Upload License File:** This option allows you to upload your license to WEBppliance 3.1 for Linux (LS).



**Important:** If you are using FTP to transfer the license file from one system to another, make sure the original license text is not modified in any way since modified licenses do not work. We recommend that you transfer the license file in binary mode.

- **Copy and Paste License File:** This option allows you to copy and paste the text from your license file onto WEBppliance 3.1 for Linux.

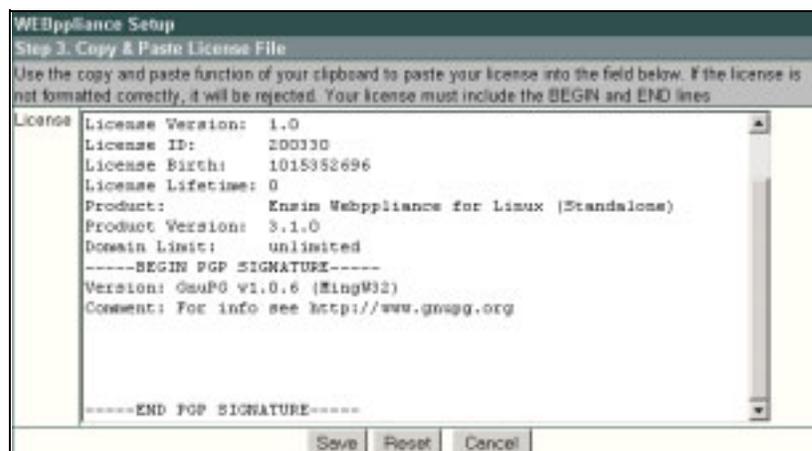
- a To **upload** your license file:
  - On the *Step 2: WEBppliance License File* page, click **Upload License File**.  
The Step 3: Upload License File page opens.



- On the **Upload License** field, click **Browse** to find your license file on your local system, then click **Upload**.

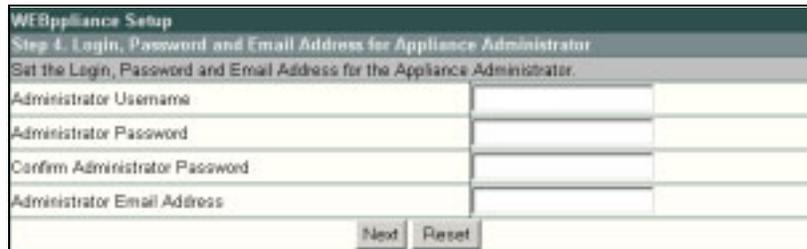
Your license is registered with Ensim Corporation. You are now ready to specify a user name and password for the Appliance Administrator.

- b To **copy and paste** your license file:
  - Save your license file to your local system.
  - Using a text editor, open your license file.
  - Copy the entire text to your system clipboard.
  - Return to the WEBppliance Setup pages.
  - On the *Step 3: Copy and Paste License File* page, paste the license text in the WEBppliance Setup license text box, then click **Save**.



Your license is registered with Ensim Corporation.

- 
- 6 On the *Step 4: Login and Password for Appliance Administrator* page, in the **Administrator Username** field, enter a user name for the Appliance Administrator.



WEBppliance Setup  
Step 4: Login, Password and Email Address for Appliance Administrator  
Set the Login, Password and Email Address for the Appliance Administrator.

Administrator Username	<input type="text"/>
Administrator Password	<input type="password"/>
Confirm Administrator Password	<input type="password"/>
Administrator Email Address	<input type="text"/>

Next Reset

- 7 In the **Administrator Password** fields, enter a password for the Appliance Administrator.
- 8 Confirm the password in the **Confirm Administrator Password** field.
- 9 Enter an email address for the Appliance Administrator in the **Administrator Email Address** field.
- 10 Click **Next**.

The *Setup Complete* page opens.



WEBppliance Setup  
Setup Complete!

Please remember to set your timezone (click **Appliance** from navigation bar) and disable any services (click **Services** from navigation bar).  
Bookmark the link <http://ip:82/admin/> (right click on the hyperlink and select **Add to Favorites** or **Add Bookmark for Link**) so that you may reach the appliance admin page later.  
Setup has been successfully completed.  
Please click this link to go to [WEBppliance Welcome Page](#)

Congratulations! You have successfully set up WEBppliance 3.1 for Linux (LS).

If you want to go directly to the Appliance Administrator home page, click **WEBppliance Start Page**. If you want to open WEBppliance 3.1 for Linux and log on as the Appliance Administrator during another WEBppliance 3.1 for Linux session, see [“Opening WEBppliance 3.1 for Linux \(LS\) as the Appliance Administrator”](#) on page 3-6 for instructions.

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## Opening WEBppliance 3.1 for Linux (LS) as the Appliance Administrator

Once you have set up WEBppliance 3.1 for Linux (LS), you can log in to WEBppliance as the Appliance Administrator.



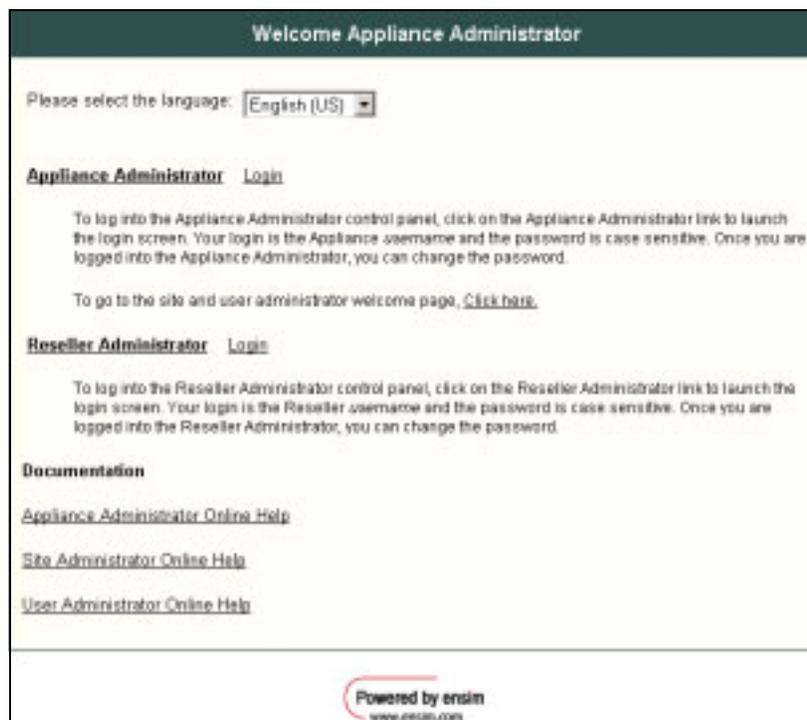
---

### Procedure: To log in as the Appliance Administrator

- 1 Open your Web browser.
- 2 In the **Address** field of your browser, enter the following URL.

**http://<server host name (or IP address)>/admin**

The WEBppliance welcome page opens.



- 3 Click the arrow in the **Please select the language** field to select the language.

- 
- 4 Click the **CLICK HERE** link.

The Appliance Administrator Login window opens.



The screenshot shows a web form titled "Appliance Administrator Login:". Below the title, it states "Your Login is the Appliance username. These fields are case sensitive." The form contains three input fields: a dropdown menu for "Language" set to "English (US)", a text input field for "Login", and a text input field for "Password". A "Login" button is positioned below the password field.

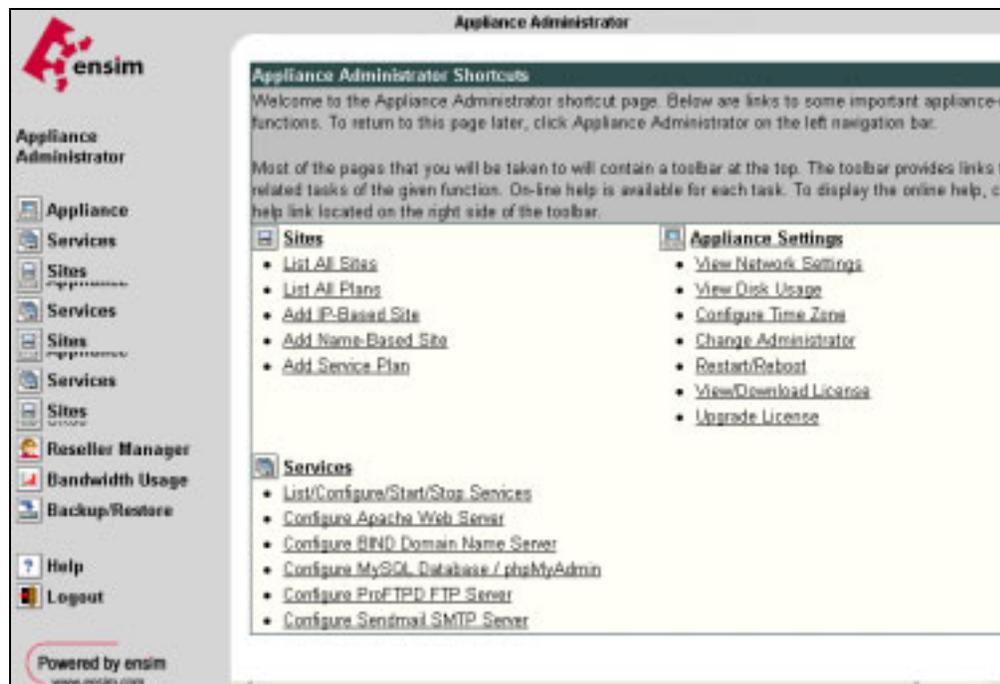
- 5 In the **Login** field, enter your Appliance Administrator user name.

- 
- 6 In the **Password** field, enter your Appliance Administrator password, then click **Login**.



**Note:** The password is case-sensitive. To protect your account, it is recommended that you change your password after you log in.

The Appliance Administrator Shortcuts page opens. This page provides links to important tasks that you will perform at the appliance level. Use the Shortcuts page to quickly view and perform these tasks.



**Note:** The Appliance Administrator Shortcuts page automatically displays when you log on as an Appliance Administrator, but you can also access these tasks from the Appliance Administrator left navigation bar.

For instructions or help in completing tasks, click the help icon . To view the complete online Help, click **Help** on the left navigation bar.

# Troubleshooting installation issues

## Introduction

This chapter describes common WEBppliance 3.1 for Linux (LS) installation issues and solutions. If you have problems installing WEBppliance 3.1 for Linux (LS) and cannot troubleshoot your problem using the information provided in [Table 5](#), contact Ensim for online support at <https://onlinesupport.ensim.com>.

## Troubleshooting WEBppliance 3.1 for Linux (LS) installation issues

[Table 5](#) tabulates some common installation issues and solutions.

**Table 5. Troubleshooting WEBppliance installation issues**

Problem	Solution
You could not extract the installation file as the root user on an NFS mounted file system.	Extract the installation file on a local file system.
You want to know if you have all required RPM packages.	To check if an RPM package is installed, use the following command: <b>rpm -q &lt;rpm name&gt;</b> If the package is installed on the server, the system response is: <i>&lt;rpm name&gt;-&lt;version number&gt;</i>

**Table 5. Troubleshooting WEBppliance installation issues (continued)**

Problem	Solution
When installing the Linux operating system, the pre-installation check shows that some required RPMS are missing.	<p>When installing the operating system, we recommend that you select <i>only</i> the following packages.</p> <ul style="list-style-type: none"><li>• Network Support</li><li>• Messaging and Web Tools</li><li>• DNS Name Server</li><li>• Network Managed Workstation</li><li>• Software Development</li></ul> <p>Additionally, we strongly recommend that you take advantage of all Red Hat published updates by periodically checking the Red Hat Web site.</p>
The host name of the server is incorrect.	<p>Check the files /etc/HOSTNAME and /etc/sysconfig/network. The host name must be the full name. See the following example.</p> <p><b>Incorrect:</b> myhost <b>Correct:</b> myhost.mydomain.com</p>
The license is invalid.	<p>This can happen due to the following reasons.</p> <ul style="list-style-type: none"><li>• The system time has changed</li><li>• The trial period has expired</li></ul> <p>The license is valid for a period of 30 days from download.</p>
The host file is incorrect.	<p>The file /etc/hosts should contain the host name and IP address of your server. The file should look like the example. If it does not, try the solution.</p> <p><b>Example</b></p> <pre>---/etc/hosts begin file-- 127.0.0.1 localhost.localdomain localhost 1.2.3.4 myhost.mydomain.com myhost ---/etc/hosts end file-- where myhost.mydomain.com maps to the IP address 1.2.3.4.</pre> <p><b>Solution</b></p> <p>We recommend using netconfig to change your host file. In the Basic Host Information window, make sure the <b>Host name</b> field contains the full host name of your server, for example <i>myhost.mydomain.com</i>, and the <b>Primary name + domain</b> field value matches the <b>Host name</b> field value.</p>

# Installing Red Hat Linux 7.2

## Introduction

This appendix provides instructions for manually installing and configuring the Red Hat Linux 7.2 operating system before installing WEBppliance 3.1 for Linux (LS).



**Important:** WEBppliance 3.1 for Linux (LS) can be installed only on a Red Hat Linux 7.2 server. Other versions of Red Hat Linux are not supported.

Topics in this section include:

- “Minimum system requirements” on page A-1
- “Installing the Red Hat Linux 7.2 operating system” on page A-2
- “Checking the host name and network settings” on page A-21
- “Updating the Red Hat Linux 7.2 kernel and configuring lilo” on page A-24

## Minimum system requirements

To install Red Hat Linux 7.2, you must have:

- An Intel Pentium® II or III processor, Class 500 MHz or above or any Intel-compatible CPU of Class 500 MHz or above.
- At least 20 GB of hard disk space; 20 GB space is recommended. For instructions on partitioning your disk, see step 9 on page -7. For more details, refer to [Appendix B, “Customizing disk partitioning”](#).
- At least 128 MB of RAM (256 MB or above is recommended).
- A swap partition size of 256 MB.
- A CD-ROM drive.
- Red Hat Linux 7.2 installation CD-ROMs (disc 1 and disc 2).
- “root” user access.
- Network connectivity.

---

## Installing the Red Hat Linux 7.2 operating system

You must install the Red Hat Linux 7.2 operating system before you can install and set up WEBppliance 3.1 for Linux.



---

### Procedure: To install the Red Hat Linux 7.2 operating system

- 1 Insert the first Red Hat Linux 7.2 installation CD-ROM (disc 1) in the CD-ROM drive of your server and restart the server.
- 2 At the **boot:** prompt, type **text** and press the **Enter** key. This starts the installation process.

```
      Welcome to Red Hat Linux 7.2!

- To install or upgrade Red Hat Linux in graphical mode,
  press the <ENTER> key.

- To install or upgrade Red Hat Linux in text mode, type: text <ENTER>.

- To enable low resolution mode, type: lowres <ENTER>.
  Press <F2> for more information about low resolution mode.

- To disable framebuffer mode, type: nofb <ENTER>.
  Press <F2> for more information about disabling framebuffer mode.

- To enable expert mode, type: expert <ENTER>.
  Press <F3> for more information about expert mode.

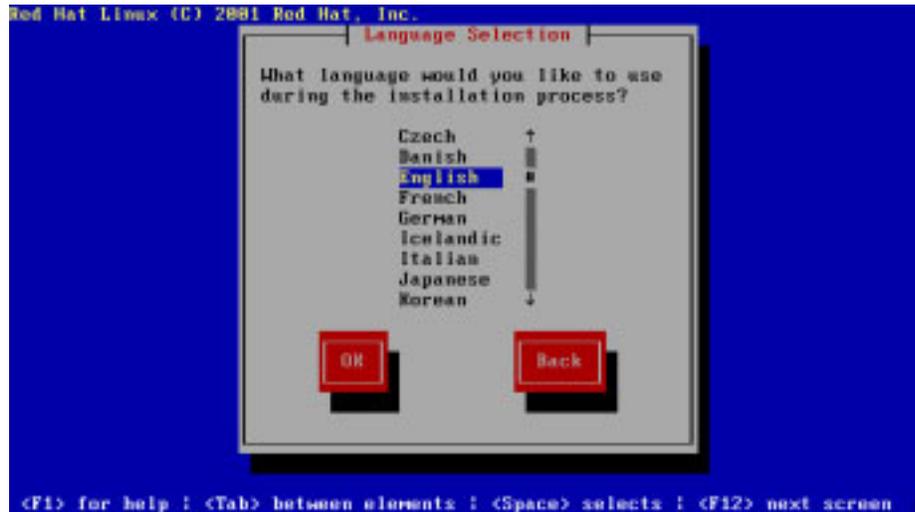
- To enable rescue mode, type: linux rescue <ENTER>.
  Press <F5> for more information about rescue mode.

- If you have a driver disk, type: linux dd <ENTER>.

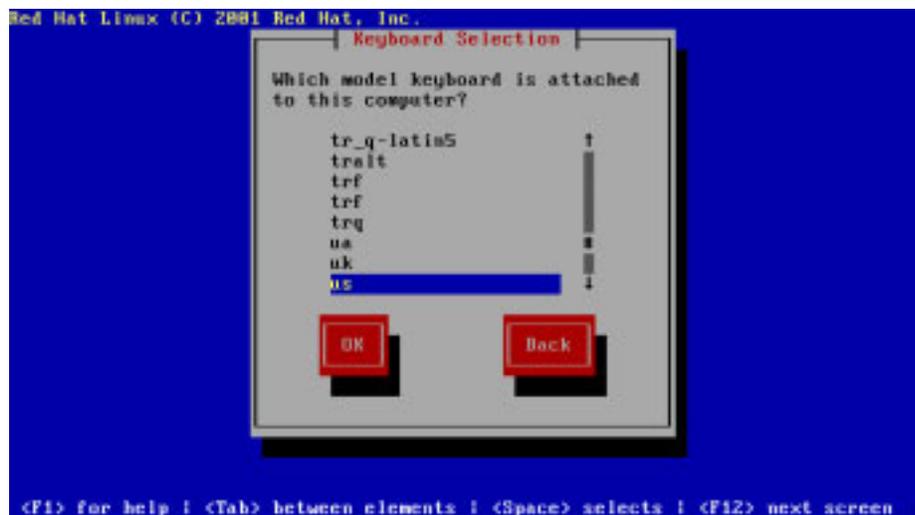
- Use the function keys listed below for more information.

(F1-Main) (F2-General) (F3-Expert) (F4-Kernel) (F5-Rescue)
boot: _
```

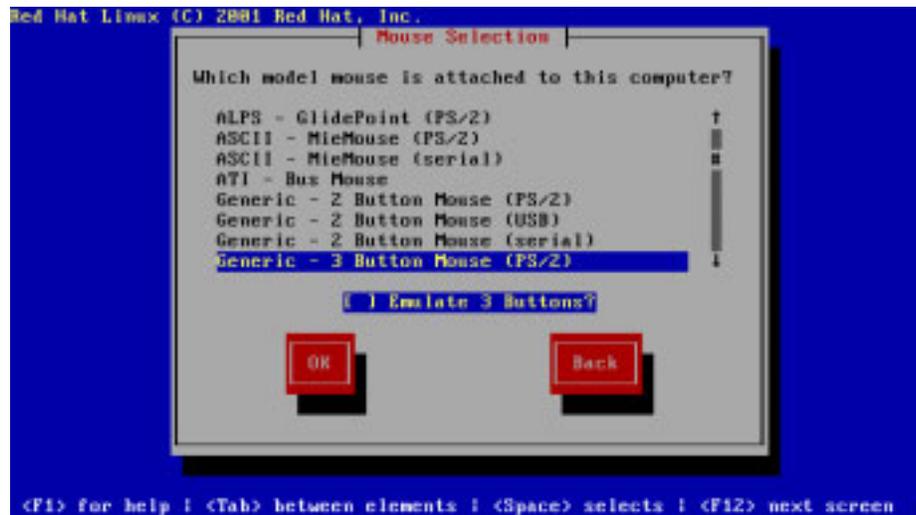
- 3 On the Language Selection screen, select English as the language that you want to run the installation program in, then click **OK**.



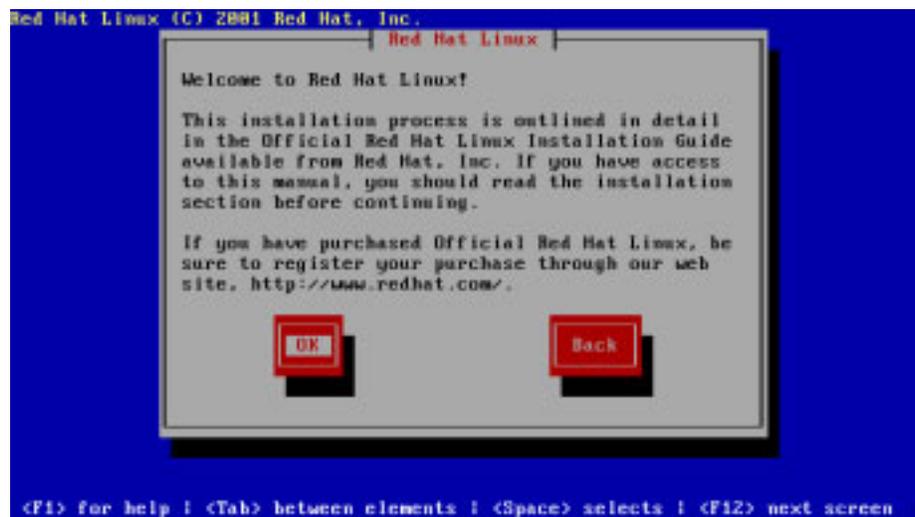
- 4 On the Keyboard Selection screen, select the keyboard attached to your server, then click **OK**.



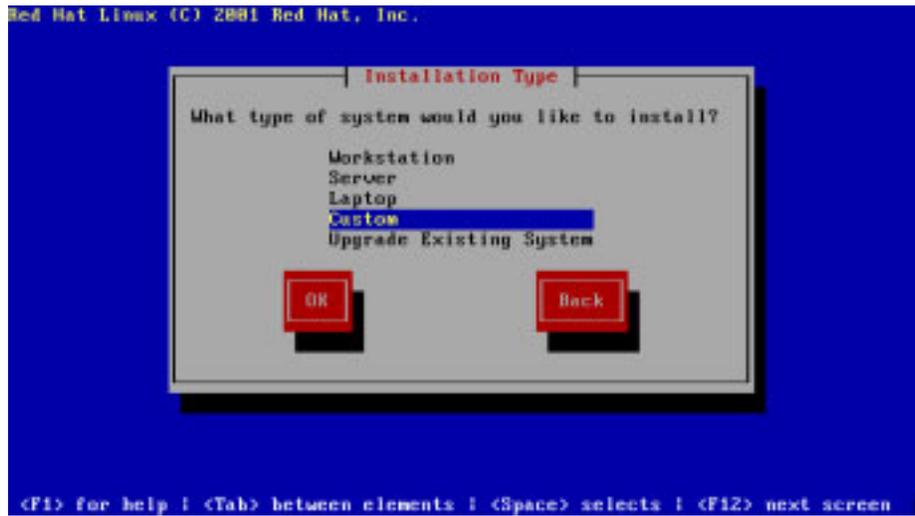
- 5 On the Mouse Selection screen, select the mouse attached to your server, then click **OK**.



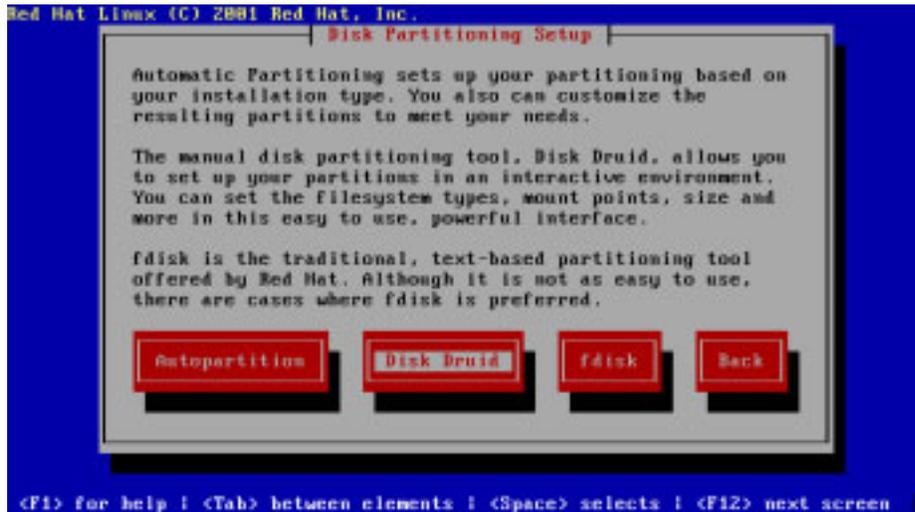
- 6 On the Welcome screen, review the installation information, then click **OK**.



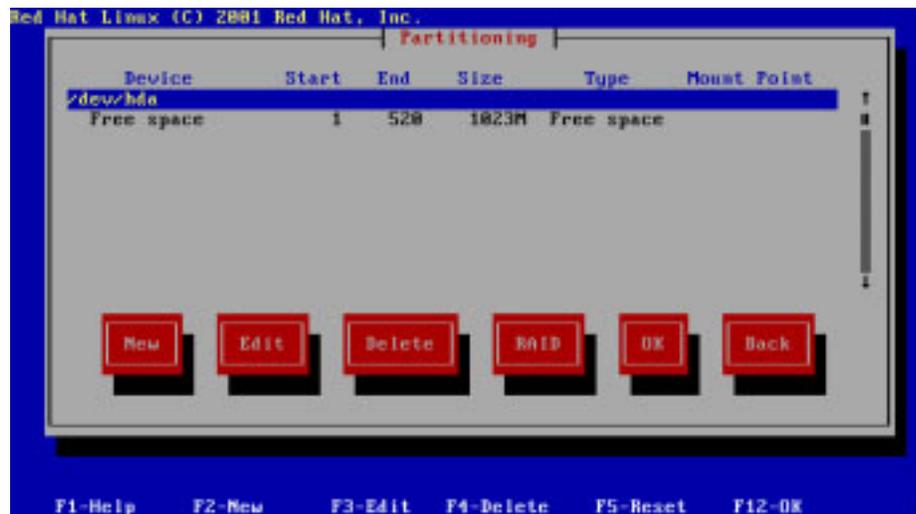
- 
- 7 On the Installation Type screen, select **Custom**, then click **OK**.



- 8 On the Disk Partitioning Setup screen, select **Disk Druid**.



Your hard disk should look somewhat like this, if it is not partitioned.



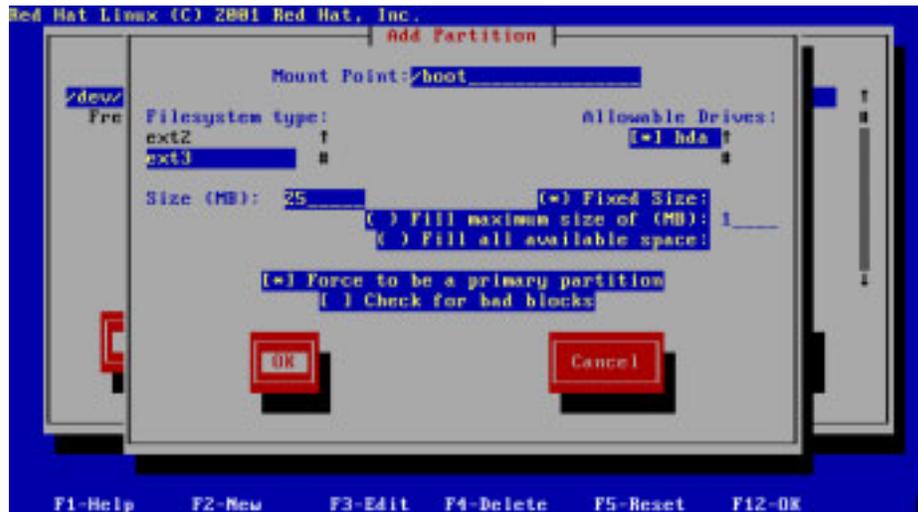
If your disk has existing partitions screen, select a partition, and click **Delete**. Delete each partition this way.

**9** Create the following three disk partitions:

- **/boot** - The primary partition of your disk.
- **swap** - The swap-space partition of your disk.
- **/** - The root partition of your disk.

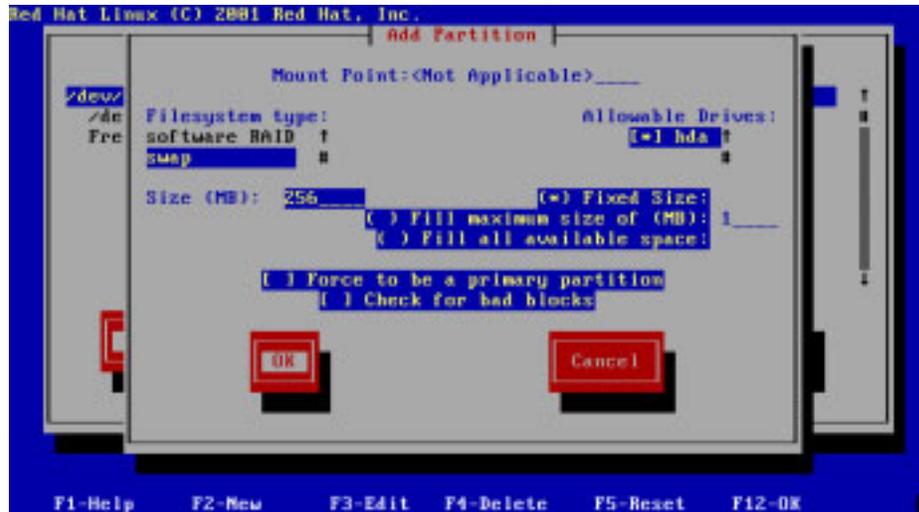
To create the **/boot** partition:

- a** On the Partitioning screen (see step 8 on page -6), click **New**. The Add Partition screen displays.
- b** In the **Mount Point** field, type **/boot**.
- c** For the **Filesystem type** select an option, either **ext2** or **ext3**.
- d** In the **Size (MB)** field, type **25**, then click **OK**.



To create the **swap** partition:

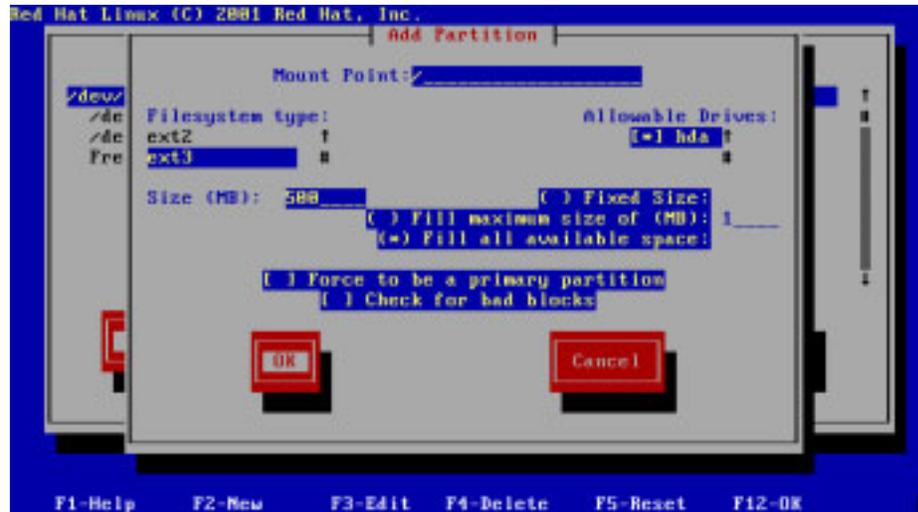
- a** On the Partitioning screen (see step 8 on [page -6](#)), click **New**. The Add Partition screen displays.
- b** For the **Filesystem type** field, select **swap**.
- c** In the **Size (MB)** field, enter a number that is twice the current RAM, then click **OK**.



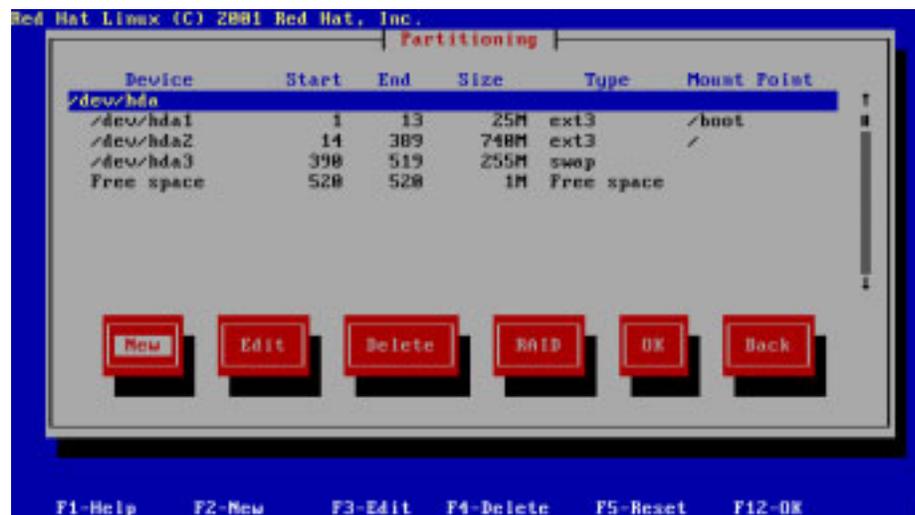
To create the **/** partition:

- a** On the Partitioning screen (see step 8 on [page -6](#)), click **New**. The Add Partition screen displays.
- b** In the **Mount Point** field, type **/**.
- c** For the **Filesystem type** select an option, either **ext2** or **ext3**.

- d In the **Size (MB)** field, select **Fill all available space**, then click **OK**.



Your hard disk (after the partitioning) should look somewhat like this.



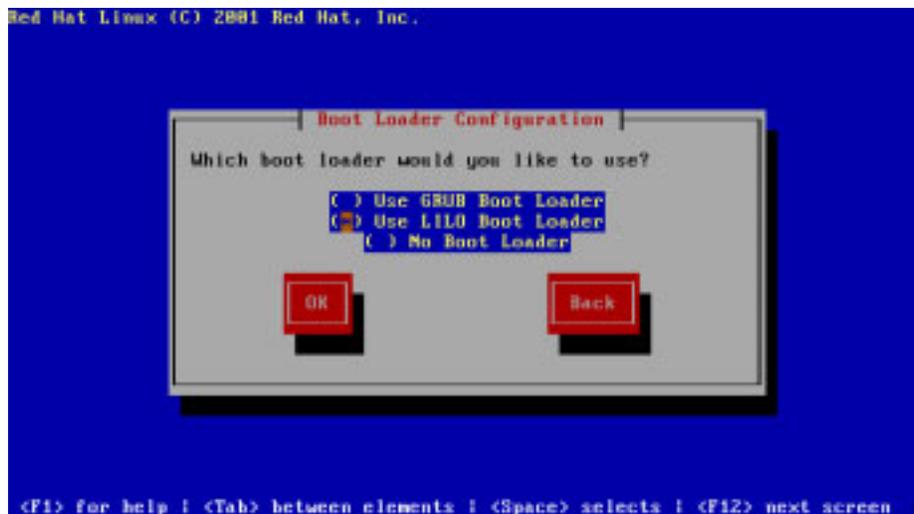
- 10 Click **OK**.

- 
- 11 On the Boot Loader Configuration screen, select an option, either **GRUB Boot Loader** or **LILO Boot Loader**.
  - 12 Click **OK**.

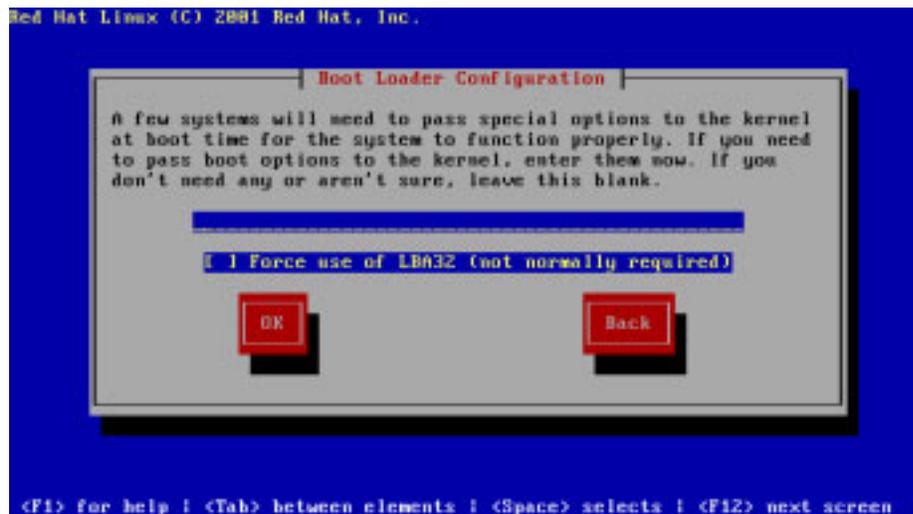
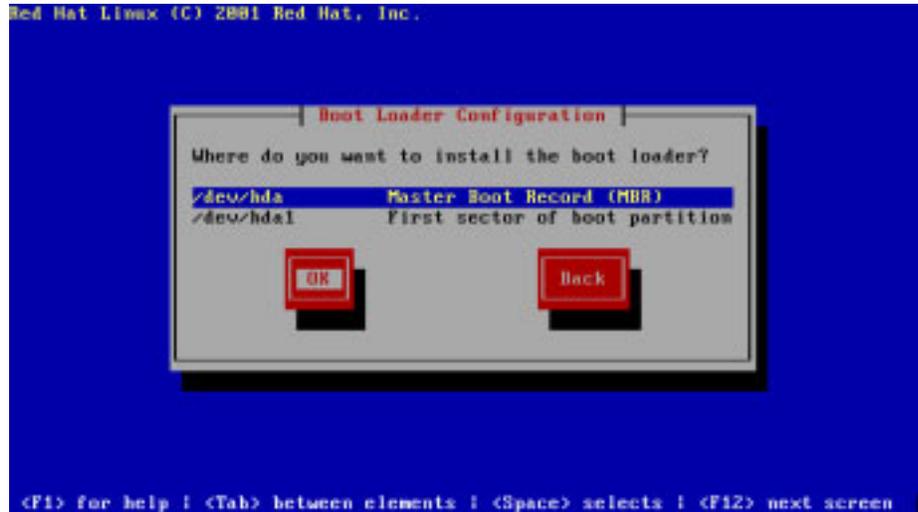


**Note:** If you selected **LILO**, see “[Updating the Red Hat Linux 7.2 kernel and configuring lilo](#)” on page A-24. If you selected **GRUB**, you do not need to configure lilo.

---

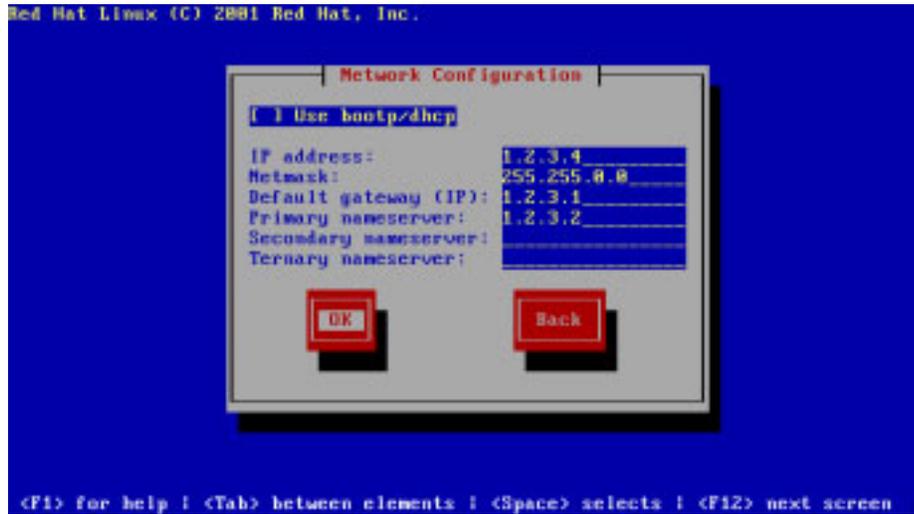


13 On each of the following three screens, click **OK**.





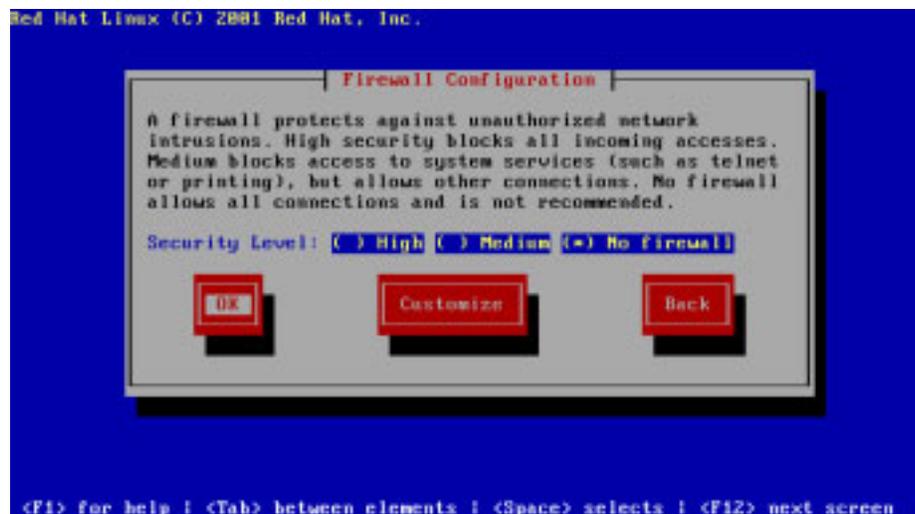
- 14 On the Network Configuration screen, clear **Use bootp/dhcp**, enter your server network configuration, then click **OK**.



- 15 On the Hostname Configuration screen, enter the fully qualified host name of your server, then click **OK**.



- 16 On the Firewall Configuration screen, select **No firewall**, then click **OK**.



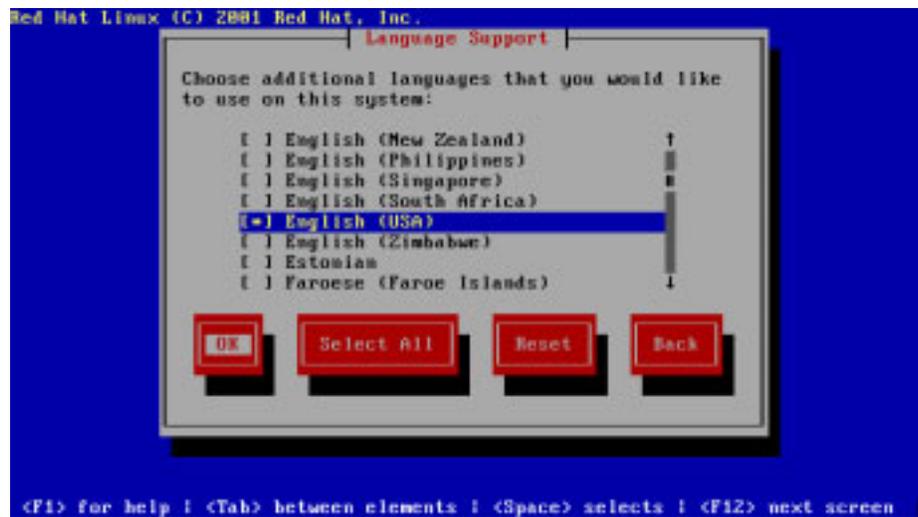
---

**17** On the Language Support screen, select **English (USA)**, then click **OK**.



**Note:** The locale for Red Hat Linux 7.2 must be set to **English (US)** ONLY. WEBppliance installation will fail if you set your server to any other locale or select multiple locales. Also, once installed the locale should not be changed, as WEBppliance 3.1 for Linux does not support any operating system locale other than English (US).

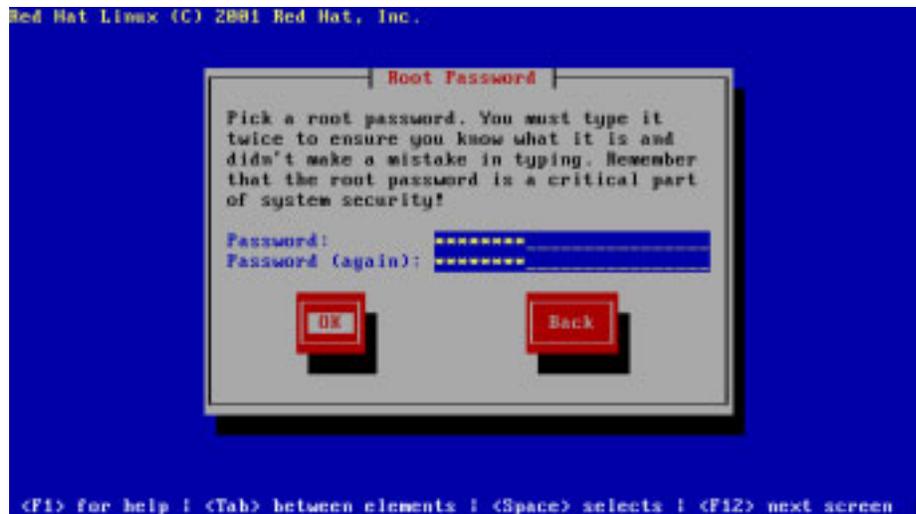
---



- 18 On the Time Zone Selection screen, select the location, then click **OK**.



- 19 On the Root Password screen, enter in the root password for your server, re-enter the password to confirm it, then click **OK**.



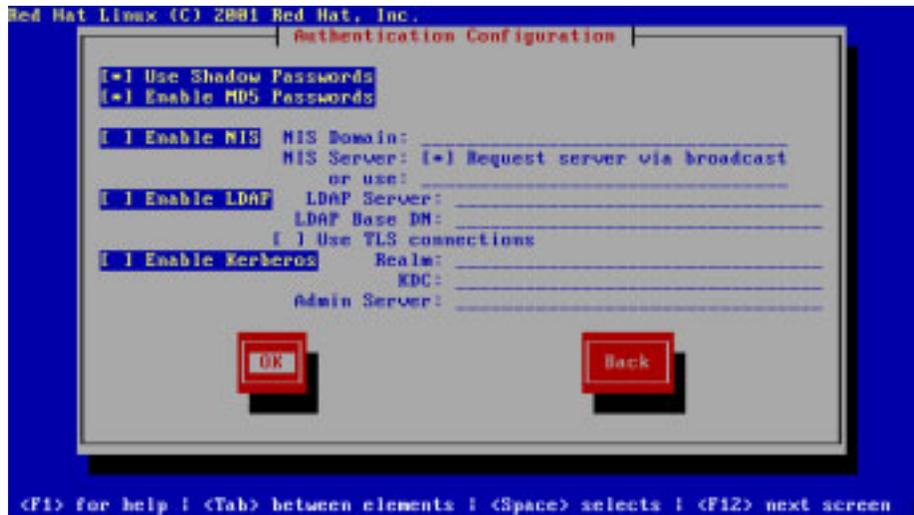
- 20 If you want to create an account that you can use to remotely log on to your server using Telnet or FTP, click **Add**. Provide the login name and password, then click **OK**.



- 21 Review the information on the User Account Setup screen, then click **OK**.



22 Review the information on the Authentication Configuration screen, then click **OK**.



---

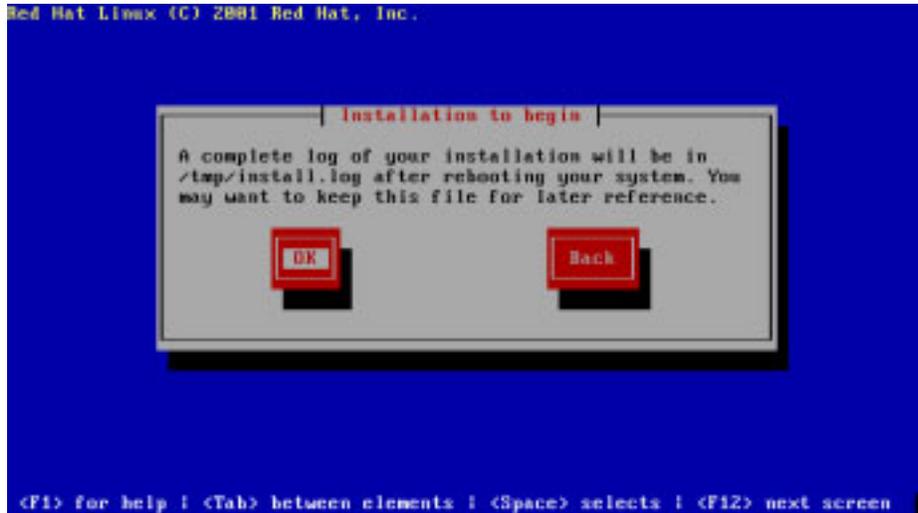
**23** On the Package Group Selection screen, verify that only the following packages are selected. Clear all other check boxes.

- Network Support
- Messaging and Web Tools
- DNS Name Server
- Network Managed Workstation
- Software Development

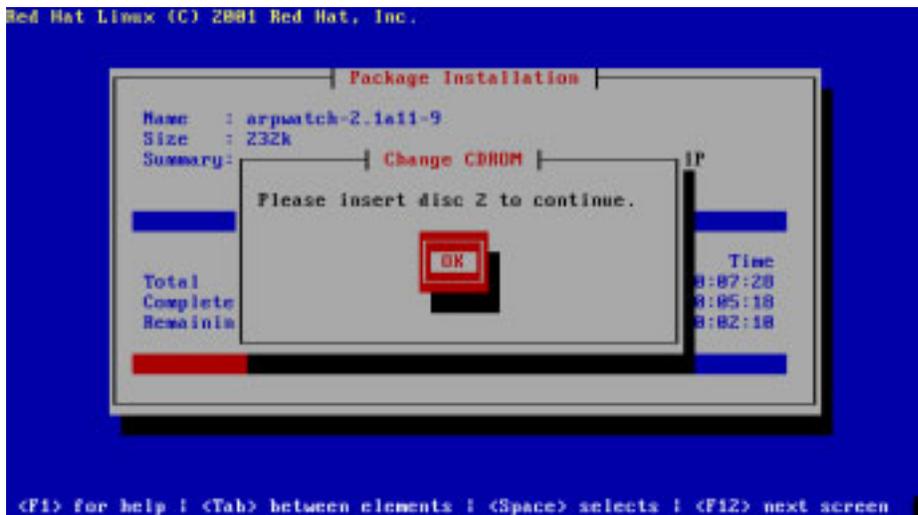


**24** Click **OK**.

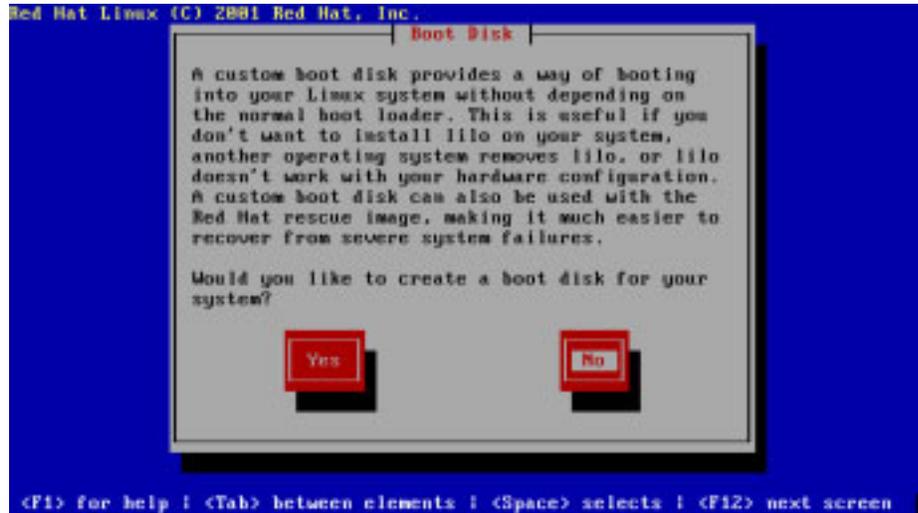
25 Review the Installation to begin screen, then click **OK**.



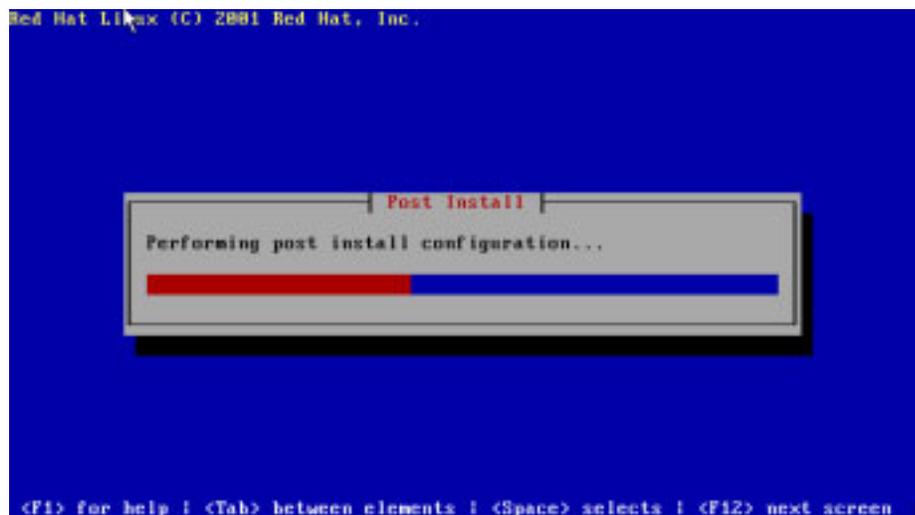
26 Insert the second installation CD-ROM, then click **OK**.



27 To create a boot disk, click **Yes**. Otherwise, click **No**.

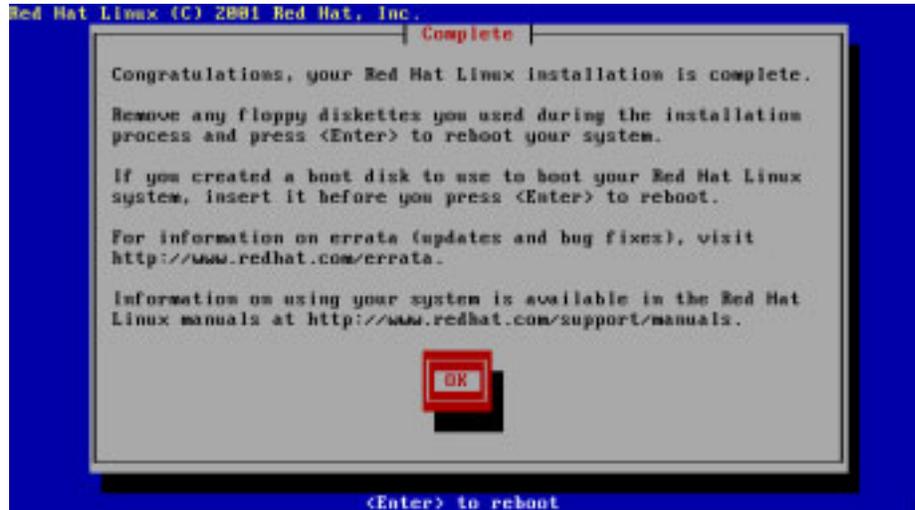


The Post Install screen displays.



---

**28** When done, the installation complete screen displays.



**29** Click **OK**, then press **Enter** to restart.

## Checking the host name and network settings

After you install Red Hat Linux 7.2, you must check your system's host name and network configuration to ensure that they are correct.



---

### **Procedure:** To check your system's host name and network configuration

- 1 Log on to the system as the root user.
- 2 Type `vi /etc/hosts` to open the host file and modify the contents.
- 3 Verify that the file is in the following format:  
*<ip> <fully qualified hostname> <hostname>*

- 
- 4 Verify that the loopback entry (127.0.0.1) appears in the file. A correctly configured file should look like this:



**Note:** The IP addresses used here are for illustration purposes only; they are not valid values.

---

```
# Do not remove the following line, or various programs
# that require network functionality will fail.
127.0.0.1          localhost.localdomain localhost
1.2.3.4           myhost.mydomain.com myhost
```

- 5 Modify the file as needed.
- 6 Type `:wq` to close the file.
- 7 Type `vi /etc/sysconfig/network` to open the network `sysconfig` file and modify the contents.
- 8 Verify the host name. A correctly configured file should look like this:



**Note:** The IP addresses used here are for illustration purposes only; they are not valid values.

---

```
NETWORKING=yes
HOSTNAME=myserver.mydomain.com
GATEWAY=10.100.0.1
```

- 9 Modify the file as needed.
- 10 Type `:wq` to close the file.
- 11 Type `vi /etc/sysconfig/network-scripts/ifcfg-eth0` to open the network scripts file and modify the contents.

---

**12** Verify that network information. A correctly configured file should look like this:



**Note:** The IP addresses used here are for illustration purposes only; they are not valid values.

---

```
Example:  
DEVICE=eth0  
BOOTPROTO=static  
BROADCAST=10.1.1.1  
IPADDR=10.1.1.1  
NETMASK=255.255.0.0  
NETWORK=10.1.0.0  
ONBOOT=yes
```

**13** Modify the file as needed.

**14** To make these changes active, restart the system by typing:

```
shutdown -r now
```

---

## Updating the Red Hat Linux 7.2 kernel and configuring lilo

This section provides instructions on updating the Red Hat Linux 7.2 kernel and configuring lilo.



**Note:** You do **not** need to configure lilo if you selected the **GRUB Boot Loader** option on the Boot Loader Configuration screen. See step 11 on [page -10](#) for more information.

---



**Procedure:** To update the Linux Red Hat 7.2 kernel

- 1 Log on to the system as the root user.
- 2 If your system has a single processor, update the kernel by typing the following command:  

```
rpm -Uvh kernel-2.4.9-34.i386.rpm
```
- 3 If your system has a dual processor, download kernel-smp-2.4.9-34.i686.rpm, then update the kernel by typing the following command  

```
rpm -Uvh kernel-smp-2.4.9-34.i686.rpm
```

To configure lilo:

- 1 Type `vi /etc/lilo.conf` to open the lilo file and modify the contents.
- 2 Verify the contents. A correctly configured file should look like this:



**Note:** The IP addresses used here are for illustration purposes only; they are not valid values.

---

```
prompt
timeout=50
default=linux
boot=/dev/hda
```

---

```
map=/boot/map
install=/boot/boot.b
message=/boot/message
linear
image=/boot/vmlinuz-2.4.7-10
    label=linux_old
    initrd=/boot/initrd-2.4.9.31.img
    read-only
    root=/dev/hda3
image=/boot/vmlinuz-2.4.9-34
    label=linux
    initrd=/boot/initrd-2.4.9-34.img
    read-only
    root=/dev/hda3
```

- 3** Modify the lilo file as needed.
- 4** To make the lilo.conf changes active, run lilo by typing:  
lilo
- 5** To begin using the new kernel, restart the system by typing:  
shutdown -r now
- 6** Download the requisite Red Hat Linux 7.2 updates as detailed in [“Installing Red Hat Linux 7.2 updates” on page 2-4](#) (Chapter 2).

Your server environment is now primed to install WEBppliance 3.1 for Linux (LS). To install WEBppliance 3.1 for Linux (LS), follow the instructions as described in [“Installing WEBppliance 3.1 for Linux \(LS\)” on page 2-8](#) (Chapter 2).



# Customizing disk partitioning

## Introduction

This appendix provides instructions for customizing your disk partitioning.

## The need for disk partitioning

When you install Red Hat Linux 7.2 from a CD-ROM, multiple disk partitions may be created. Since WEBppliance must be able to create temporary files on each disk partition on which it edits files, errors such as “unable to perform cross-device link” might result if you use complex disk partitioning schemes.

Ensim recommends using a simple partition scheme with the following three disk partitions:

- / - The root partition of your disk.
- /boot - The primary partition of your disk.
- swap - The swap-space partition of your disk.

## Customizing your disk partitioning

To allow the server’s root user to configure where WEBppliance temporary files are created, change the path name to the temporary files by editing the file `/etc/virtualhosting/tmpdirs`. WEBppliance essentially makes changes to files located under `/etc` and `/home/virtual`.



**Important:** You must not edit the file `tmpdirs` until you finish installing WEBppliance 3.1 for Linux (LS). If you attempt to create the directories as detailed below prior to installing WEBppliance, the installation will fail. This is because the installation checks for the existence of `/etc/virtualhosting` and `/home/virtual`.

Additionally, any changes made in the file `tmpdirs` are overwritten during the installation process.

---

---

When you change the path name to the temporary files, each line in the tmpdirs file should use the following format.

`<path-prefix>:<directory>`

where `<path-prefix>` matches the beginning of file path names whose associated temporary file locations you want to modify, and `<directory>` is a path to an existing directory that lies on the same partition as `<path-prefix>`.

For security purposes, `<directory>` should be root-owned, with no permissions for either group or other (for example, 0700), and all path components leading to this directory should not be editable by anyone other than root. If this file is empty, then by default all temporary files will be created in `/var/cache`.



**Important:** You have to restart WEBppliance to complete this configuration process. To restart WEBppliance type the following command at the command prompt.

**`/etc/rc.d/init.d/webppliance restart`**

---



**Example:** Assume the disk partitioning of the server is as follows:

---

`/` is on `/dev/hda1`

`/var` is on `/dev/hda2`

`/home` is on `/dev/hda3`

Since `/var` is on its own partition, it cannot be used as a location for temporary files for either `/etc` or `/home/virtual`, which means that the default setting will not work. In addition, since `/home` and `/etc` are on different partitions, two separate directories will need to be specified. So, `/etc/virtualhosting/tmpdirs` would contain the following:

`/etc:/etc/safedir`

`/home:/home/virtual/FILESYSTEMTEMPLATE/safedir`

`/usr:/usr/safedir`

---

Using this configuration, all files under /etc that WEBppliance attempts to modify would have their temporary files created in /etc/safedir. Similarly, all files that WEBppliance attempts to modify under /home would have their temporary files created in /home/virtual/FILESYSTEMTEMPLATE/safedir. All other path names would use temporary files in /var/cache (the default).

These directories would be created as follows:

```
mkdir -m 0700 /etc/safedir; chown root.root /etc/safedir
```

```
mkdir -m 0700 /home/virtual/FILESYSTEMTEMPLATE/safedir; \
```

```
chown root.root /home/virtual/FILESYSTEMTEMPLATE/safedir
```

```
mkdir -m 0700 /usr/safedir; chown root.root /usr/safedir
```



**Note:** For more details on Linux partitions, please contact Ensim Support at <https://onlinesupport.ensim.com>

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