



Clear Packets FMS-Enterprise Gateway Software Installation Guide

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Clear Packets
FMS-Enterprise Gateway Software
+
Linux (Fedora) Operating System
Installation Guide

Linux (Fedora) is required for installing FMS-Enterprise Gateway software.

If you ordered your hardware through Clear Packets then you do not need this guide. You can move to Quick Start Guide.

Clear Packets FMS System Software Installation Instructions

Please make sure you have received the following items along with the End User License Agreement.

- Linux (Fedora Core) Installation DVD Disc
- Linux Rescue CD-ROM
- FMS System Software, CPOS and Documentation CD-ROM disc
- Copy of the **Clear Packets Subscription Agreement**

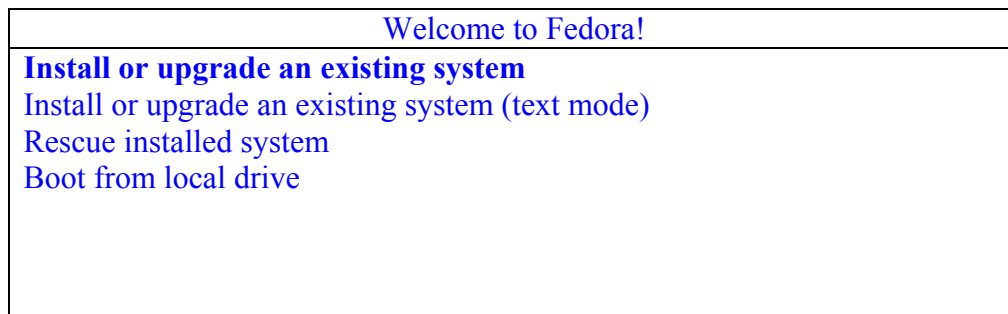
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1.0 Purpose of this Installation Guide

This guide contains instructions to install FMS Systems software and Linux Operating System required for running the FMS System for the first time or to reinstall from beginning. **All the data stored on any of the disc drives present on the target machine (computer system on which this installation is carried out) is deleted forever and lost. Please take backup of any data you may have on the machine.**

1.1 Installing Linux Fedora Core 7 on the FMS System Machine

- 1) Power On the server machine and insert **Linux (Fedora Core 7) Installation DVD Disc** in the CD/DVD drive on the machine the installation is to be carried done. The machine should start booting from the DVD and a window with the following message should appear on the display:



(If the machine does not boot from DVD you inserted in the CD/DVD drive, please use the BIOS menu options (these are displayed very early on when machine is powered on) and make the CD/DVD drive as the first boot drive.)

- 2) Select option **Install or upgrade an existing system** option and hit Enter key.

- 3) The boot process starts and a next window titled **CD Found** asks to perform testing of the media. Use **Tab or arrow** key to select **Skip** option and proceed by hitting Enter key.

Keep proceeding through next window using **Next** button.

- 4) The next window asks for selection of language. Select **English (English)** option and press **Next** button.
- 5) The next window asks for keyboard selection. Select **U.S. English** and press **Next** button.
- 6) The next window provides two options for installation:
 - **Install Fedora**
 - **Upgrade an existing installation**

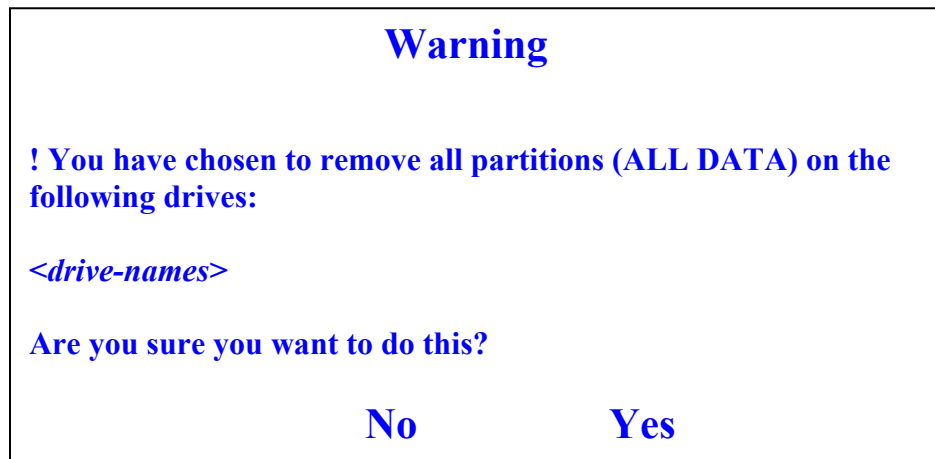
Select **Install Fedora** option and proceed further using **Next** button.

- 7) The next window asks how to use the hard drive with a message as “**Installation requires partitioning of your hard drive.....**”. From the drop-down selection box select the option:

Remove all partitions on selected drives and create default layout.

Leave all other settings to their default values (do not change them). Click on **Next** button.

- 8) Next, Installation process displays a warning message as:



Press the **Yes** button.

- 9) The next window allows configuration of **Network Devices** (the network interface cards) on the system.
 - Select by check marking both network interfaces **eth0** and **eth1**.

- In the **Hostname** section, select **manually** option and provide a name for this machine for example as: **fms1.clearpackets.com**. This name depends upon your organization's internet domain name, so choose accordingly. Press **Next** button to proceed forward.
- 10) The next window asks for time zone selection; please select your zone either from the map or from the drop-down selection box. The map can be enlarged or moved around using scroll-bars if you want/need to.
- 11) The next window asks for selection password for super user/administrator called **root**. Select the password for user **root** which is easy for you to remember but hard to guess for others. Factory default password for Clear Packets installed systems is: **fms123**
- 12) The next window asks for software packages to be installed. Out of 3 selection choices
- **Office and Productivity**
 - **Software Development**
 - **Web Server**
- Do NOT select any of these three options** (by default, **Office and Productivity** option is selected, unselect it). **Select Customize now** option located at the bottom of this window and press **Next** button.
- 13) The next window has options to select packages for installation and looks like this:

<p>Desktop Environments</p> <p>Applications</p> <p>Development</p> <p>Servers</p> <p>Base System</p> <p>Language</p>	<p>GNOME Desktop Environment</p> <p>KDE (K Desktop Environment)</p>
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1.2 Selection of packages for installation

1.2.1 Select **Desktop Environments** from the left column

- Checkmark only **KDE (K Desktop Environment)** from right column. (**Unselect/remove checkmark from GNOME Desktop Environment** option).
- Highlight **KDE (K Desktop Environment)** option by clicking on it and press **Optional packages** button (located at the bottom of the window)

- A new window opens up when Optional packages button is pressed (this window is referred as *optional package selection window* from now onwards in the rest of this document). From the optional package selection window, **unselect ALL packets (NO optional packages are selected) by removing the checkmarks from them.** Checkmark toggles when it is clicked by mouse – if you click on it once it is selected and if you click again, it is cleared.

(Alternatively, you can also highlight the **KDE (K Desktop Environment)** entry and then click **Right mouse** button and choose **Deselect all optional packages** option. This way you can deselect all optional packages for this package)

- Press **Close** button on optional package selection window
- After optional package selection window is closed, the message just above **Optional packages** button should say: **0 of 30 optional packages selected**

1.2.2 Select **Applications** from the left column

- Checkmark **Editors** from the right column and highlight it by clicking on the entry. Press **Optional packages** button after **Editors** entry is highlighted and select/checkmark the following packages from optional package selection window (and unselect everything else):
 - **emacs**
 - **vim-enhanced**
- Checkmark **Graphical Internet** from the right column and click on the entry to highlight it. Press **Optional packages** button and select/checkmark the following packages from optional package selection window (and **deselect everything else**):
 - **firefox (do not select any other package for this case)**

Unselect Text-based Internet, which is originally marked with a check-box

1.2.3 Select **Development** from the left column

- Checkmark **Development Tools** from the right column. Using **Optional packages button**, **remove/deselect** all optional packages from the optional package selection window.

(Deselection of ALL package for this case can also be carried out by pointing the mouse of the entry and then pressing Right mouse button and by selecting **Deselect all optional packages** option)

1.2.4 Select **Servers** from the left column

- Checkmark **Network Servers** from the right column and press **Optional packages** button. Select the following packages from the optional package selection window:
 - **vnc-server**

- Checkmark **Server Configuration Tools** from the right column and press **Optional packages** button.

Select all optional packages from the optional package selection window.

(Selection of all packages in this case can be carried out by clicking the Right mouse button while pointing at **Server Configuration Tools** entry and by selecting **Select all optional packages** option)

- Checkmark **Windows File Server** from the right column and press **Optional packages** button. Select the following packages from optional package selection window:
 - **system-config-samba**

1.2.5 Select **Base System** from the left column

- Checkmark **Administration Tools** from the right column and click on **Optional packages** button. From the optional package selection window, select all packages except **sound-card configuration tool**.

- Checkmark **Base** from the right column and click on **Optional packages** button. From the optional package selection window, select the following packages:

(It is often convenient to first deselect all packages, by clicking the Right mouse button when the entry is selected and highlighted and then choose **Deselect all optional packages** from displayed options and then proceed to select the following packages using **Optional packages** button)

Only the following packages needs to be check marked/selected from the optional package selection window. Deselect all others from the optional packages window.

- 1) **autofs**
- 2) **cpuspeed**
- 3) **cryptsetup-luks**
- 4) **dhclient**
- 5) **dhcpcv6_client**

- 6) dmraid
- 7) dos2unix
- 8) dump
- 9) eject
- 10) fbset
- 11) firstboot-tui
- 12) ftp
- 13) irqbalance
- 14) jwhois
- 15) logwatch
- 16) mcelog
- 17) mdadm
- 18) openssh-client
- 19) openssh-server
- 20) pm-utils
- 21) rsh
- 22) rsync
- 23) setuptool
- 24) smartmontools
- 25) speespo
- 26) stunnel
- 27) sudo
- 28) symlinks
- 29) system-config-network-tui
- 30) system-config-securitylevel-tui
- 31) tcpdump
- 32) telnet
- 33) unix2dos
- 34) unzip
- 35) usbutils
- 36) which
- 37) yum
- 38) zip

Uncheck mark **Dial-up Networking Support**, **Hardware Support**, and **Java** options which are auto check marked.

- Checkmark **System Tools** from the right column and click on Optional packages button. Select the following packages from the optional package selection button:

- 1) **BackupPC**
- 2) **nmap**
- 3) **ntp**

- 4) **samba-client**
- 5) **screen**
- 6) **vnc**

➤ Checkmark **X Window System** from the right column and click on **Optional packages** button. Select the following packages:

- 1) **authconfig-gtk**
- 2) **firstboot**
- 3) **gdm**
- 4) **openssh-askpass**
- 5) **pirut**
- 6) **rhgb**
- 7) **system-config-date**
- 8) **system-config-display**
- 9) **system-config-network**
- 10) **system-config-printers**
- 11) **system-config-services**
- 12) **system-config-users**
- 13) **vnc-server**
- 14) **xorg-x11-apps**
- 15) **xorg-x11-twm**
- 16) **xorg-x11-utils**
- 17) **xterm**

Click on **Next** button to start the installation process.

After installation completes, press **Reboot** button. System reboots automatically. System takes a while when rebooting and coming up again, so please be patient.

1.3 After System Automatically Reboots:

- 1) System comes up with **Welcome** window. Press **Forward** button.
- 2) Next, **License Information** window is displayed. Please read the license agreement carefully. The license agreement can be reached at <http://fedoraproject.org/wiki/Legal/Licenses/EULA7>
- 3) Next, **Firewall** window is displayed. From the drop-down selection box, select **Disabled** and press **Forward** button.
- 4) System will display message saying “Clicking the ‘Yes’ button will set ...”, press **Yes** button.
- 5) Next, **SELinux** window is displayed. From the drop-down selection box, select **Enforcing** and press **Forward** button.

- 6) Next, **Date and Time** window is displayed. Set the time based on your local time.
- 7) Next, Create User window is displayed, which requires that a new user is setup in the system. Setup new user named **fms** as:
 - Username: **fms**
 - Full Name: **FMS System**
 - Password: Select a password you like and make sure you remember it. Factory default password is **fms123**
 - Confirm password: Retype the password you selected

Press **Finish** button.

1.4 Setup Display

The Display of the system needs to be set to 1024x768 resolution. To do this, login as user named **root**.

From Linux main menu, select **Administration** menu and click on **Display** option. Select **Resolution** 1024x768 and **Color Depth** as **Millions of Colors**. Please wait till the cursor settled won and ONLY when the cursor settles down, press OK.

Logout of the system and login again as user **root** for new display resolution to take effect. This is done by selecting **Log Out** from the main Linux menu and then by clicking on **End Current Session** button.

Upon login, verify that Display is set to 1024x768 resolution using main menu's **Administration** option and then select **Display**. If not, repeat the process again.

1.5 Login as user fms

You must login as user **fms** once before further installation steps in this document.

If you are currently logged in as user **root** or you are unsure, Logout as user **root** using Linux main menu's **Log Out** option.

Login as user **fms**. Use the password you established when fms user was configured.

Factory default password for user **fms** is **fms123**.

After logging in once, logout as user **fms** using **Log Out** from the main Linux menu and then by clicking on **End Current Session** button.

1.6 Installation of FMS System software and Linux Operating System

- I. If currently you are not logged in as user **root**, then logout and login as user **root**. This is done using **Log Out** from the main Linux menu and then by clicking on **End Current Session** button.
- II. Login as user **root**.
- III. Use the password you setup for the user **root**. Factory default password for **root** is **fms123**
- IV. Insert the CD containing the FMS System Software and CPOS Linux Operating System.
- V. Wait for KDE CDROM window to appear which looks like this:
(If the window does not appear, eject the CDROM and reinsert)



- VI. Press **OK** button located at the bottom of this window. A new window titled Konqueror opens up. Keep this window open.
- VII. Open a Linux terminal window using Linux main menu's **System** option and then clicking on **Terminal** option. A new terminal window opens up where new commands can be typed.

VIII. At the command prompt of the newly opened terminal window, type the command:

```
# /media/CDROM/InstallationScript
```

- IX. Execution of this command (script) installs all of FMS System software and a new Linux kernel needed by FMS System. Installation process may take some time so please be patient.
- X. From Linux main menu, select *Administration* option and click on *Server Settings* option and then select *Services Service Management*. A new window titled *Service Configuration* opens up. On this window, **keep only the following services check marked** and uncheck mark all others. Using menu option, save the changes:

- 1) ConsoleKit
- 2) atd
- 3) autofs
- 4) avahi-daemon
- 5) cpuspeed
- 6) crond
- 7) haldaemon
- 8) irqbalance
- 9) kudzu
- 10) lm_sensors
- 11) mcstrans
- 12) mdmonitor
- 13) messagebus
- 14) netfs
- 15) network
- 16) nmb
- 17) smartd
- 18) smb
- 19) sshd
- 20) syslog
- 21) vncserver

IMPORTANT: Please double check and make sure these services are check marked/selected. If these are not selected and saved, system may not work correctly. Press **Save button and close the window.**

1.6.1 Edit file */etc/grub.conf* using any editor of your choice and:

- 1) Set **default=0**
This line is located towards the start of file */etc/grub.conf*.

2) append **panic=1** after each line starting with **kernel....**

An example is:

```
kernel /vmlinuz-2.6.21.7-CPOS ro root=/dev/VolGroup00/LogVol00 rhgb quiet panic=1
```

Just append **panic=1** at the end of each line starting with **kernel.**

Rest of the line may look different than shown above in the example.

Installation of the FMS System software is complete.

Please proceed to the **Quick Start Guide** to get FMS System started in your network.

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