



# **Installing Intel<sup>®</sup> Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0**

*White Paper*

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Enterprise Platforms and Services Marketing

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## *Revision History*

<b>Date</b>	<b>Revision Number</b>	<b>Modifications</b>
10/27/04	1.0	Initial Release
10/28/04	1.01	Modified some platform support
11/03/04	2.0	Modified some screenshots
12/16/04	2.1	Modified Trademarkings

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# 1. Introduction

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## 1.1 Purpose of this Document

This document describes the requirements for installing Intel® Server Manager 8.10 (ISM8.10) Software on a Redhat Enterprise Linux\* 3.0 System. With this document, OEMs and Resellers can easily instruct their end users how to integrate ISM8.10 Software into their Redhat\* Enterprise Linux 3.0 System.

## 1.2 Supported Server Products

The following Intel® server boards and systems support ISM8.10 Software and Redhat Enterprise Linux 3.0.

- Intel® Server Board SE7520AF2
- Intel® Server Board SE7520JR2
- Intel® Server Board SE7520BD2
- Intel® Server Board SE7320SP2
- Intel® Server Board SE7525GP2

## 1.3 Supported Operation Systems

The supported operating systems covered in this document are Redhat\* Enterprise Linux 3.0, versions AS, WS, and ES.

## **Installing Intel® Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0 Requirements**

## 2. Installation Requirements

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### 2.1 Package Requirements

The following packages are required prior to the installation of the ISM 8.10 Software.

Server Console Installation:

1. Development Tools
2. Kernel Development
3. Legacy Software Tools
4. System Tools

**Note:** you must manually add the 'sysstat' and 'net-snmp-utils' rpms. Click details, and place a check in the checkbox next to the sysstat and net-snmp-utils versions included.

Remote installation:

1. FTP server ([Not available on Advanced Workstation CD. Must be installed from another source.](#))
2. Legacy Network Server

**Note:** Check the box. Then click details. Check the 'telnet' option (Telnet is required for remote install).

Admin Console Installation:

1. MySQL Database
2. Development Tools
3. Kernel Development
4. Legacy Software Tools
5. System Tools

**Note:** You must manually add the 'sysstat' and the 'net-snmp-utils' rpms. Click details, and place a check in the checkbox next to the sysstat and net-snmp-utils versions included.

6. MySQL-3.23.58-1.i386.rpm ([This is needed only for admin console installation. You should download it from <http://downloads.mysql.com/archives/mysql-3.23/MySQL-3.23.58-1.i386.rpm> or a convenient local file server on the network.](#))

You can install these packages anytime before you start ISM8.10 installation.

Bellow is a sample for you to install these packages during Redhat Linux installation.

**Note:** [Do not remove any packages already selected during your Linux installation.](#)

When the Redhat Linux installation goes to package selection stage, follow the steps below:

1. Select the option "Customize the set of packages to be installed," and click "Next."
2. Add the following additional packages to the installation list. (Do not remove any packages already selected.)

## Installing Intel® Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0 Requirements

- a. [FTP server \(Not available on Advanced Workstation CD. Must be installed from another source.\)](#)
- b. [MySQL Database](#)
- c. [Development Tools](#)
- d. [Kernel Development](#)
- e. [Legacy Software Development](#)
- f. [Legacy Network Server](#)

**Note:** Check the box. Then click details. Check the ‘telnet’ option. (Telnet is required for remote install.)

- g. [System Tools](#)

**Note:** You must manually add the ‘sysstat’ and ‘net-snmp-utils’ rpms. Click details. Place a check in the checkbox next to the sysstat and net-snmp-utils versions included.

Once these packages have been selected, click the “Next” button to proceed.

If you want to install the ISM8.10 admin console, you must first install the MySQL-3.23.58-1.i386 package. This should be done after the Redhat Linux installation. This package installation procedure is as follows:

1. Login as root and download the MySQL server RPM from <http://downloads.mysql.com/archives/mysql-3.23/MySQL-3.23.58-1.i386.rpm>, or from a convenient local file server on the network. Install the RPM by opening a terminal shell and typing “rpm -i --force --nodeps MySQL-3.23.58-1.i386.rpm”

**Note:** The version number of MySQL server and case sensitivity are essential.

2. Open the “Service Configuration” tool under “System Settings/Server Settings” in the Red Hat start menu. Configure MySQL to startup during boot, by placing a check mark next to the service and click “Save”.
3. Open a terminal shell and connect to the MySQL database by typing “mysql”.
4. Once you are in the MySQL client session, add a new account to the database by typing “grant all privileges on \*.\* to ‘username’@’localhost’ identified by ‘password’ with grant option;”

**Note:** The username and password are configurable as needed. End every command with a semicolon and by pressing Enter. Then type “quit” to exit the MySQL client session. This is the username and password you will pass to the ISM installer so that the Admin Console has the correct permissions to access the MySQL Database.

## 2.2 Networking Service Requirements

ISM8.10 needs some ports for remote communication and management. Otherwise, you may not be able to view all the data. You must make sure that the ports [623](#), [6780](#), [9593](#), [9594](#), and [9595](#) are open in your Redhat Linux system. If you are not sure that they are, you can turn off your firewall in your OS, or choose “No Firewall” during your Redhat Linux installation.

The following ports must be open.

- 161-162 (UDP only); for SNMP
- 623 (UDP only)
- 6787 (TCP)
- 9593, 9594, 9595 (UDP and TCP)
- 623 (UDP only); used for IPMI discovery
- 6780-6786; for communication between the administrator and client
- 6787 (TCP); for communication between the administrator and client
- 9593 (UDP and TCP); Used to communicate with ISM using default OS security
- 9594 (UDP and TCP); Used to communicate with ISM using certificates as primary security mechanism
- 9595; Used for (UDP) discovery and (TCP) HTTP (non-SSL) access

**Important:** You must bind a network name with the IP address of your OS before you begin your ISM installation. To do this, you can type “vi /etc/hosts” to modify the hosts file. Or, you can go to Redhat start---System Settings---Network under X windows to modify it.

If you want to install ISM8.10 on the Redhat Linux OS from a [remote system](#), you must make sure that the following steps have been accomplished on the local Redhat Linux system before the remote installation starts.

### 2.2.1 Ensure that the Telnet Service is Running

To install ISM8.10 on the Redhat Linux OS from a remote system, you must make sure that the telnet service is running on the local Redhat Linux system before the remote installation starts.

1. Click on the ‘Red hat’ icon on the lower left corner of your Window.
2. Select ‘System Settings/Server Settings/Services’.
3. Scroll down the left pane of available services until you find ‘telnet’ and check box.
4. On Red Hat Linux, the telnet server is wrapped under the xinetd process. Continue scrolling down until you see the ‘xinetd’ box (it should be checked).
5. Highlight ‘xinetd’ by clicking on it once and press the ‘restart’ button and the top of the configuration window. Telnet is now running.
6. Press the ‘save’ button. This will change the run level of telnet so that it will start upon reboot of the machine.

## **2.2.2 Ensure the ftp Service is Running and an ftp User has been Created**

To install ISM8.10 on the Redhat Linux OS from a remote system, you must ensure that the ftp service is running and an ftp user has been created on the local Redhat Linux system before the remote installation starts.

1. Follow steps 1-2 of the previous instructions.
2. scroll down the left pane until you see the 'vsftpd' service (if you have installed RHEL Advanced Workstation, the ftp daemon is not available upon install and must be installed separately from either the RHEL AS cd's or downloaded from the web. After the daemon has been correctly installed, continue with the instructions).
3. Check the box, and click on the 'start' button at the top of the configuration window. The ftp service is now started.
4. Press the 'save' button. This will change the run level of ftp so that it will start upon reboot of the machine.
5. To use the ftp service, a user must be part of the ftp group (vsftp does not let the root account ftp to the machine for security reasons).
6. Create a new user by opening a terminal shell and typing the command 'adduser [name]' where [name] is the name of the user.
7. Now you need to create a password for that user. Type the command 'passwd [user]' where [user] is the name of the user you just created.
8. You will be prompted to change the password for the user by entering a password twice. You will be notified of the success of the command.
9. Now you must add the user to the 'ftp' group. The easiest way to do this is to manually edit your group file. In a terminal shell, type the command 'nano /etc/group'. This will open the group file into the nano editor.
10. Use your keyboard arrows and move the cursor down the list of groups to the ftp line. Move the cursor to the end of the line (after the last colon if no other ftp users are present). Type in the name of the user you just created with no space between the colon and the name. If you desire to enter multiple users, delimit them with a comma and no space, such as ftp:x:50:user1,user2.
11. after you have added the user, hit 'ctrl-o'. Nano will then prompt you to write the file. Hit enter. Then hit 'ctrl-x' to exit nano.

## **2.3 Additional Post Installation Configuration for ISM8.10 Installation**

This section details additional post installation configuration for ISM8.10 installation.

### **2.3.1 Installing Additional rpms**

You will need to install one other rpm that is not listed under the package manager, w3c-libwww-5.4.0-5.i386.rpm. This rpm is usually located on disc 2 of the RHEL 3.0 AS install discs. Mount the disc, and change to the directory where it is located. This is /mnt/cdrom/RedHat/RPMS/. Once there, type this command to install the package:

```
rpm -i w3c-libwww-5.4.0-5.i386.rpm
```

### 2.3.2      Installing the Flash Plugin

You must install the flash plugin for the Mozilla browser to be able to view key graphics using the ISM program.

Download the correct plug-in from <http://www.macromedia.com> if not available already. **Make sure you are downloading the flash plug-in for the linux86 architecture!** Either flashplayer 6 or 7 is fine. Follow the installation instructions on the macromedia website for installation. Be aware that during the installation, the program will ask you to locate the web browser installation directory of your system. For Redhat Enterprise Linux 3.0, if you use the mozilla browser, the directory should be **/usr/lib/mozilla-1.4.2**.

## 3. Installing the Intel Server Manager 8.10 Software

### 3.1 Installing the ISM8.10 Server Console

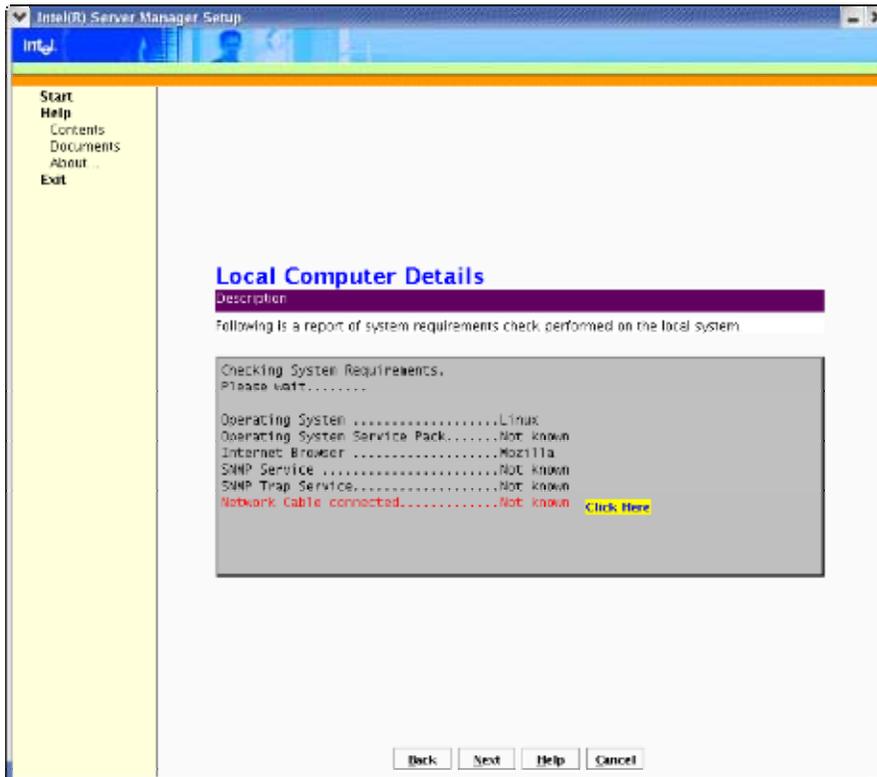
Be aware that the installation process is running in the X Windows environment. If you are currently in terminal mode, type: **startx** to switch to X windows environment before you begin your ISM8.10 installation. Make sure that the screen resolution has been set to 1024\*768. Also, be aware that the command line required below is case sensitive.

1. Insert the latest version of the ISM8.10 CD into the cd-rom drive. Type: **mount /mnt/cdrom** to mount the cd-rom. Type: **cd /mnt/cdrom/ism/Software/** to enter the installation folder.
2. Type: **./setup** to launch the installation program.
3. The installation script will detect the existence of JRE 1.4.2(or higher version) on your system. If you haven't installed JRE 1.4.2 (or higher version) on your system before, type "yes" when the screen reads "JRE 1.4.2 or higher is required. Would you like ISM setup to install it for you? [yes or no]".
4. Click "start" when the following screen appears.



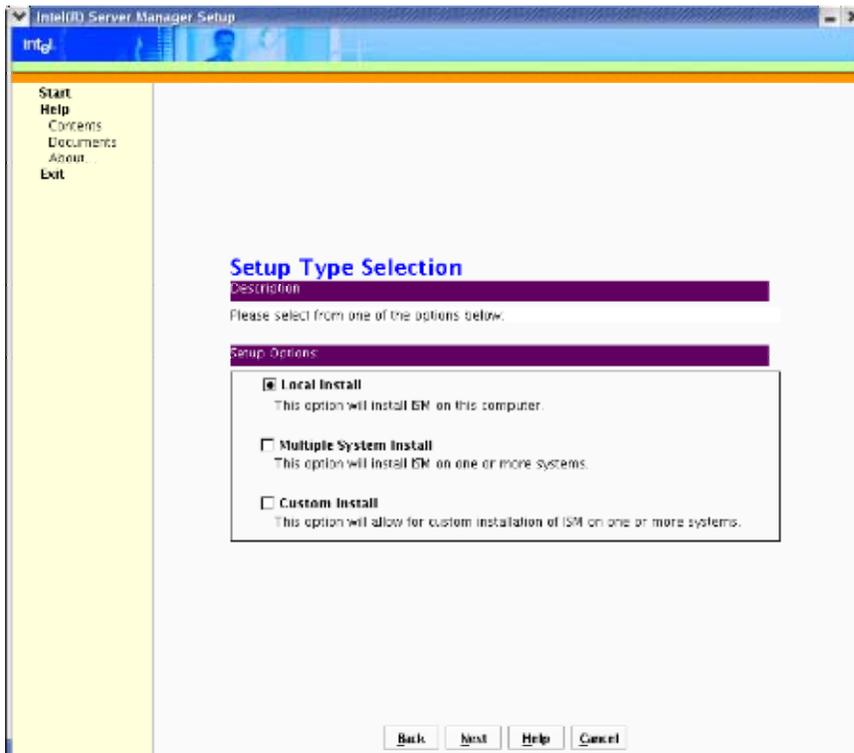
## Installing ISM8.10 Installing Intel® Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0

5. The installation script will detect the configuration of your system. In the following screen, choose “next” to continue.

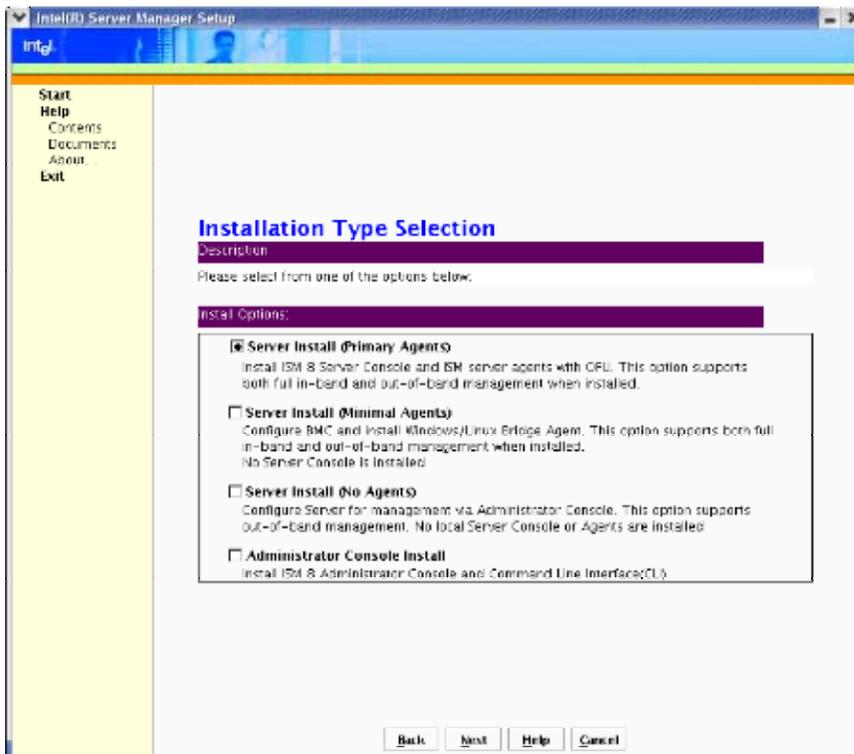


## Installing Intel® Server Manager 8.10 Software on Red Hat® Enterprise Linux 3.0 Installing ISM8.10

6. In the following screen, choose “Local Install” for the setup type. Then click “Next.”

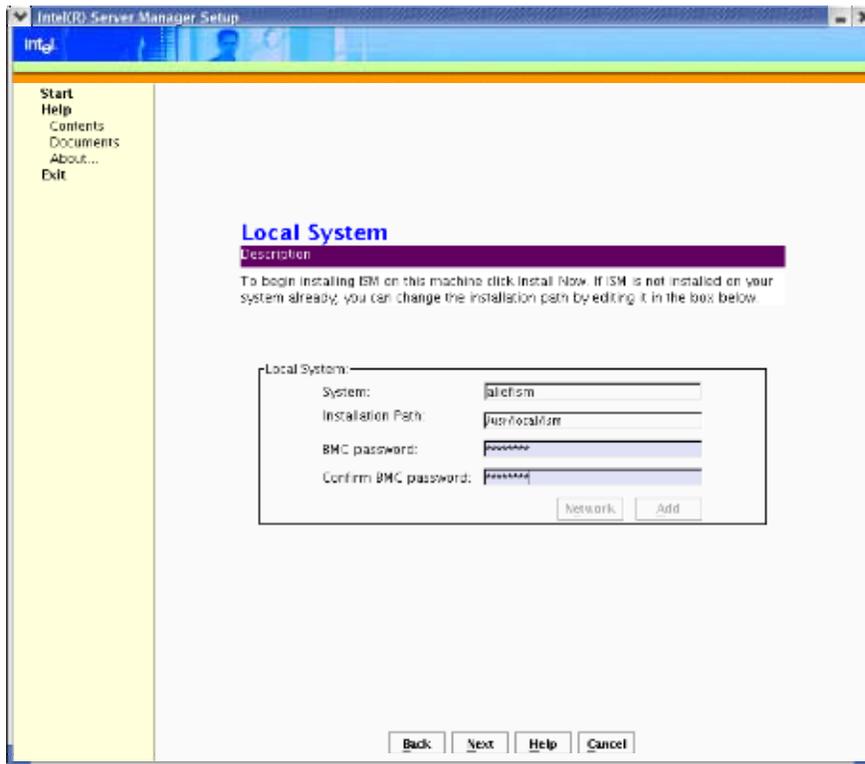


7. In the next screen, choose “Server Install (Primary Agent)” to install the common part of the ISM8.10 server console. This is recommended.



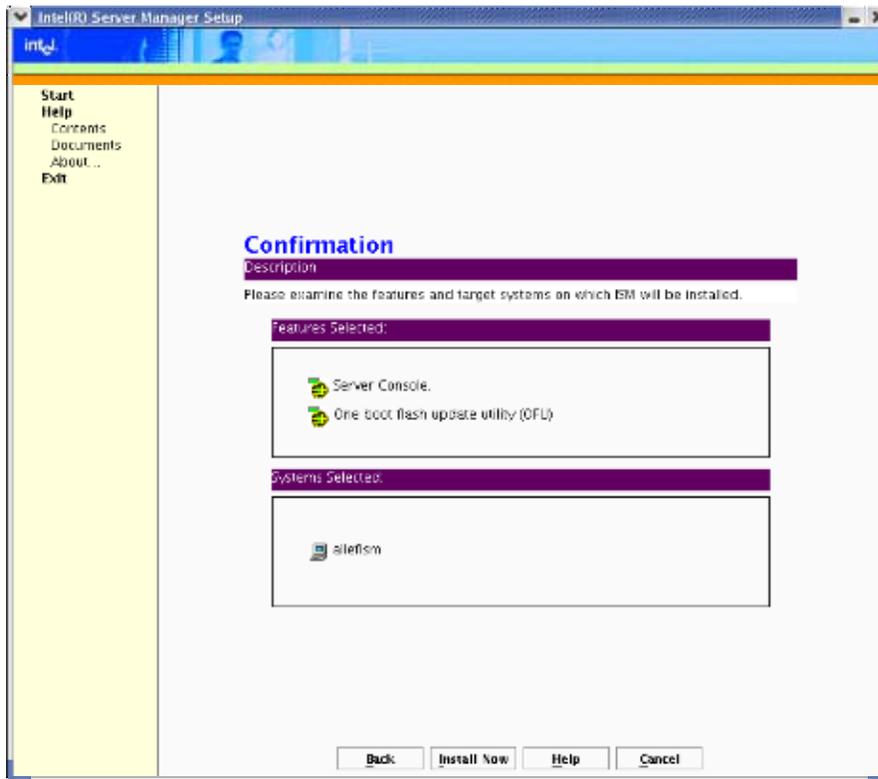
## Installing ISM8.10 Installing Intel® Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0

8. In the next screen, specify the BMC password and then click “Next”.



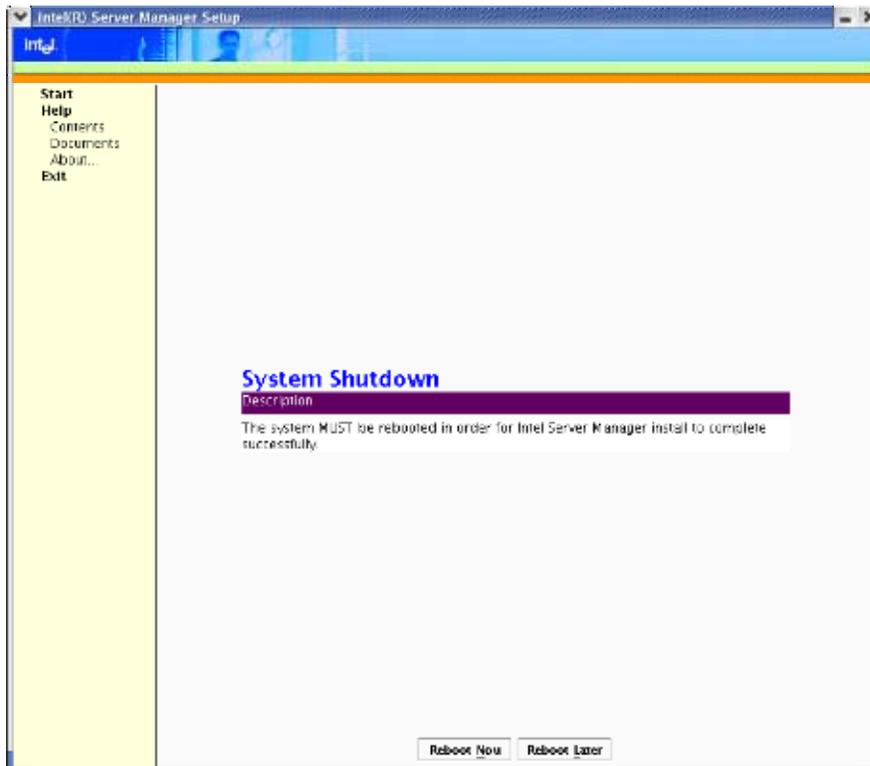
## Installing Intel® Server Manager 8.10 Software on Red Hat® Enterprise Linux 3.0 Installing ISM8.10

9. In the next screen, click “Install Now” to begin the installation.



## Installing ISM8.10 Installing Intel® Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0

10. In the next screen, click “Reboot Now” to finish the installation process.



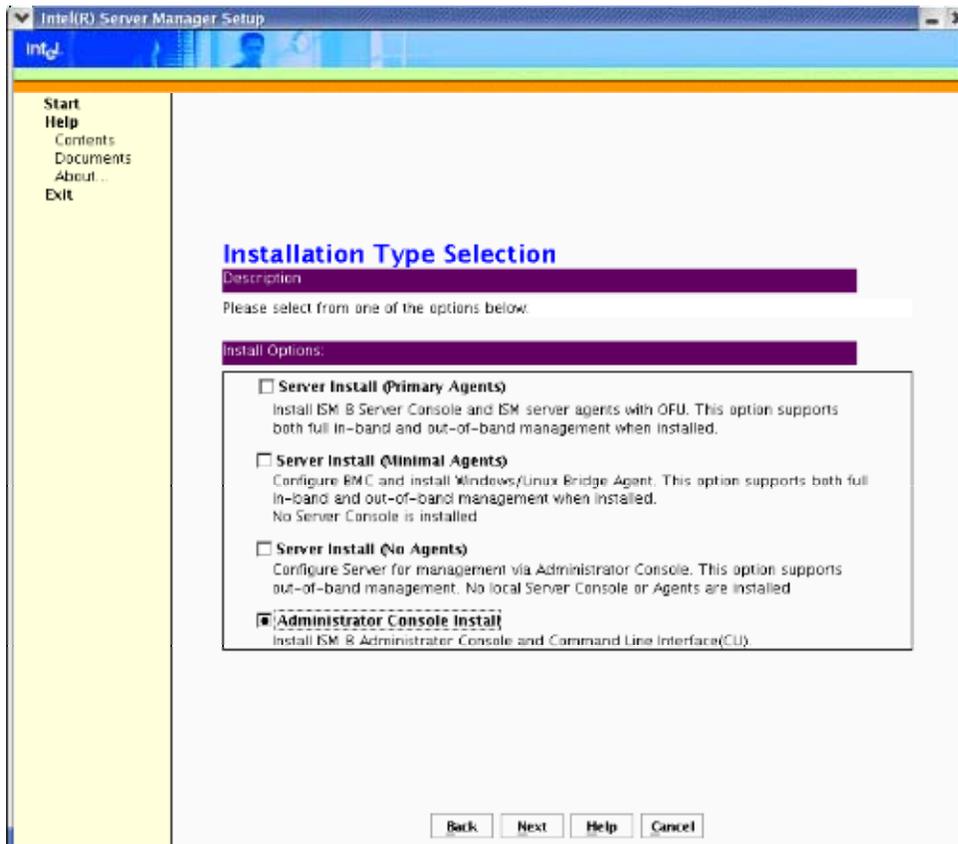
After the system comes up, you can launch the ISM server console from: **redhat start---System Tools---Intel Server Manager**, under X windows Desktop.

### 3.2 Install Intel® Server Manager 8.10 Admin Console

The first 6 steps of the ISM8.10 admin console installation are the same as the ISM8.10 server console installation. Follow steps 1 through 6 as described in section 3.1. Then continue with the next procedure.

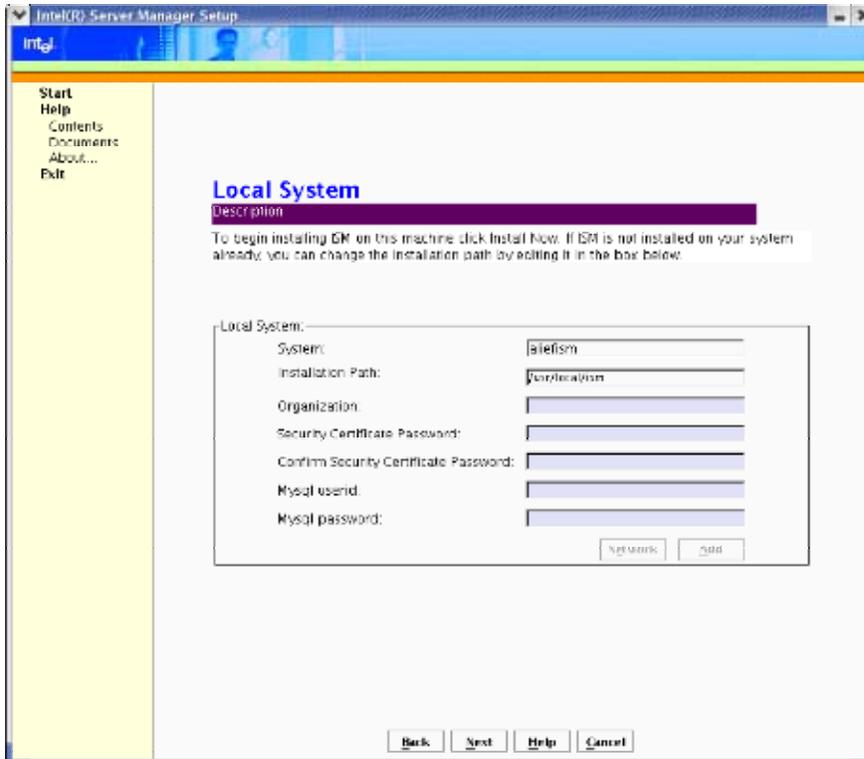
## Installing Intel® Server Manager 8.10 Software on Red Hat® Enterprise Linux 3.0 Installing ISM8.10

7. In the following screen, Choose “Administrator Console Install.” Then click “Next”.



## Installing ISM8.10 Installing Intel® Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0

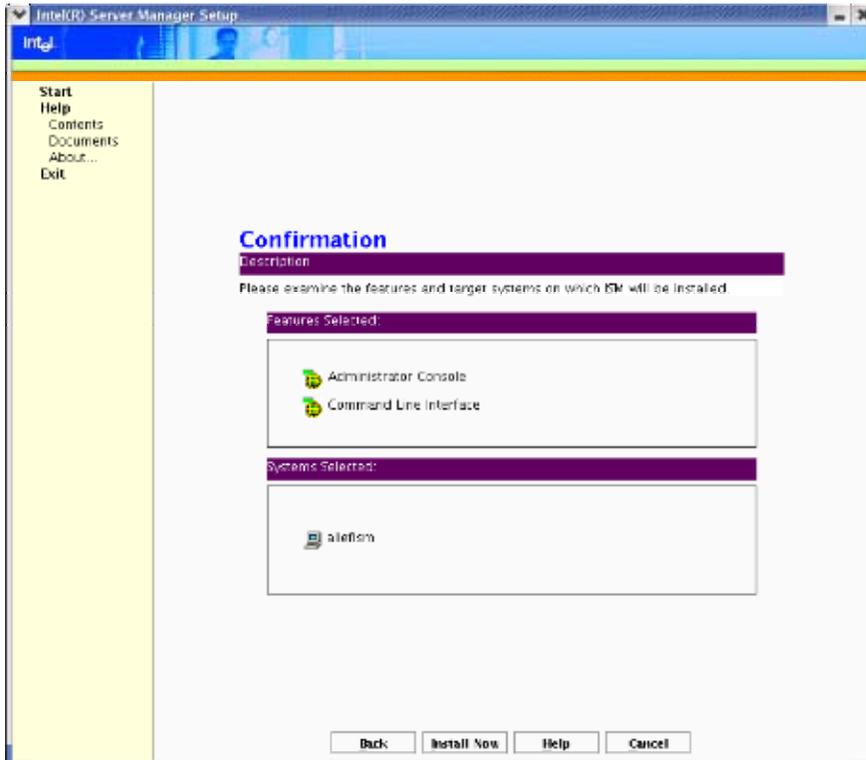
8. In the next screen, fill in the following blanks and then click "Next." Make sure that that the "Security Certificate Password" you create is a strong password. The mysql userid and password are set during the MySQL package installation. Refer to Section 2.1 for this information.



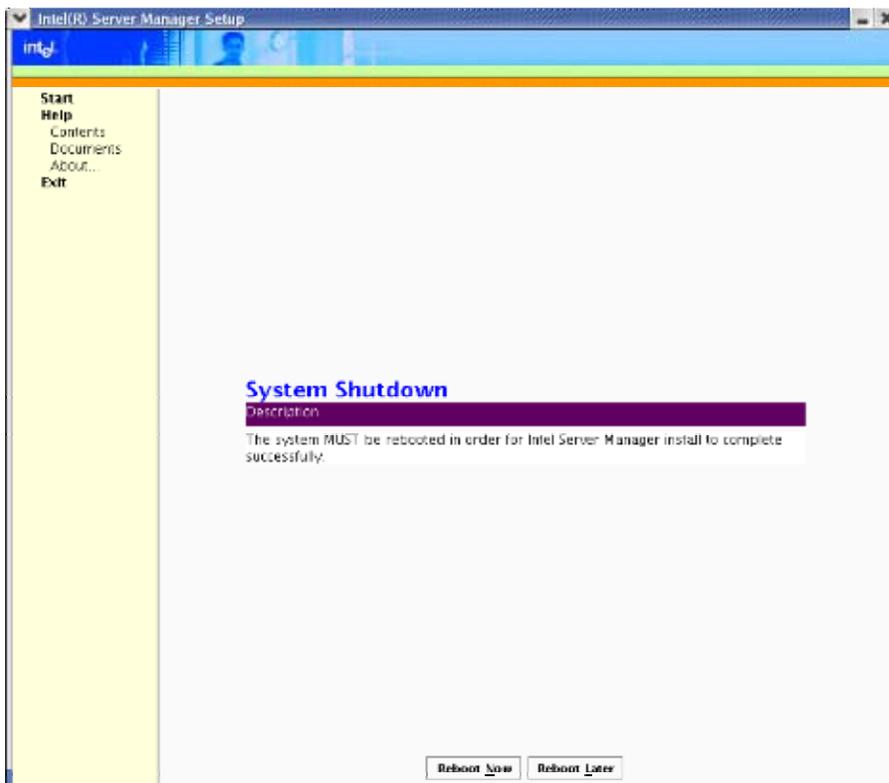
The screenshot shows the "Intel® Server Manager Setup" window. The title bar reads "Intel® Server Manager Setup". On the left, there is a navigation menu with "Start", "Help", "Contents", "Documents", "About...", and "Exit". The main content area is titled "Local System" and includes a "Description" section with the text: "To begin installing ISM on this machine, click Install Now. If ISM is not installed on your system already, you can change the installation path by editing it in the box below." Below this is a form titled "Local System:" with the following fields: "System:" (containing "iaefism"), "Installation Path:" (containing "/usr/local/ism"), "Organization:", "Security Certificate Password:", "Confirm Security Certificate Password:", "Mysql userid:", and "Mysql password:". There are "Network" and "Add" buttons at the bottom right of the form. At the bottom of the window, there are "Back", "Next", "Help", and "Cancel" buttons.

# Installing Intel® Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0 Installing ISM8.10

9. In the next screen, click “Install Now” to begin the installation.



11. Click “Reboot Now” to complete the installation process.



## **Installing ISM8.10 Installing Intel® Server Manager 8.10 Software on Red Hat\* Enterprise Linux 3.0**

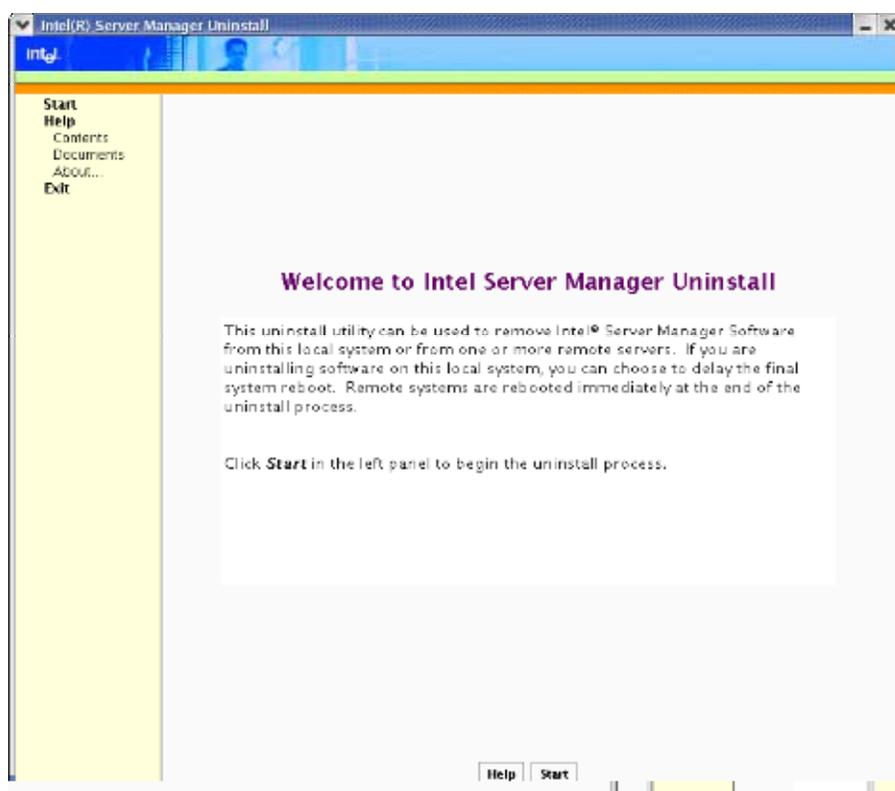
After the system comes up, you can launch the ISM 8.10 admin console from **Redhat start----System Tools----Manage Computers.**

## 4. Uninstalling the Intel® Server Manager 8.10 Software

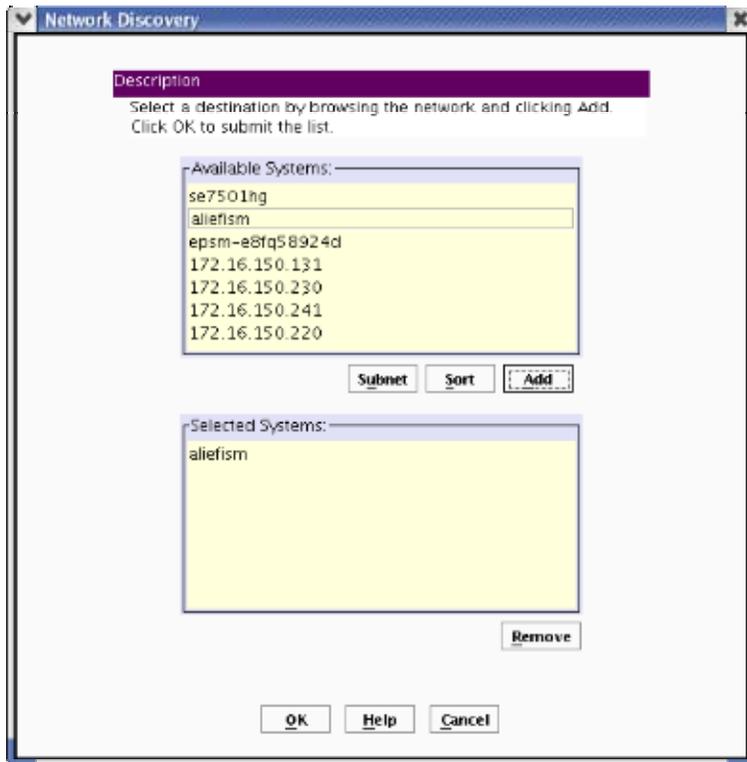
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The Uninstall process also needs to launch within the X windows environment. The uninstall process for server console and admin console is quite similar, so only the uninstall process of server console is described below.

1. Insert the latest version of the ISM8.10 CD into the cd-rom. Type: **mount /mnt/cdrom** to mount the cdrom. Type: **cd /mnt/cdrom/ism/Software** to enter the folder.
2. Type: **./uninstall** to launch the uninstall program.
3. Click “Start”.

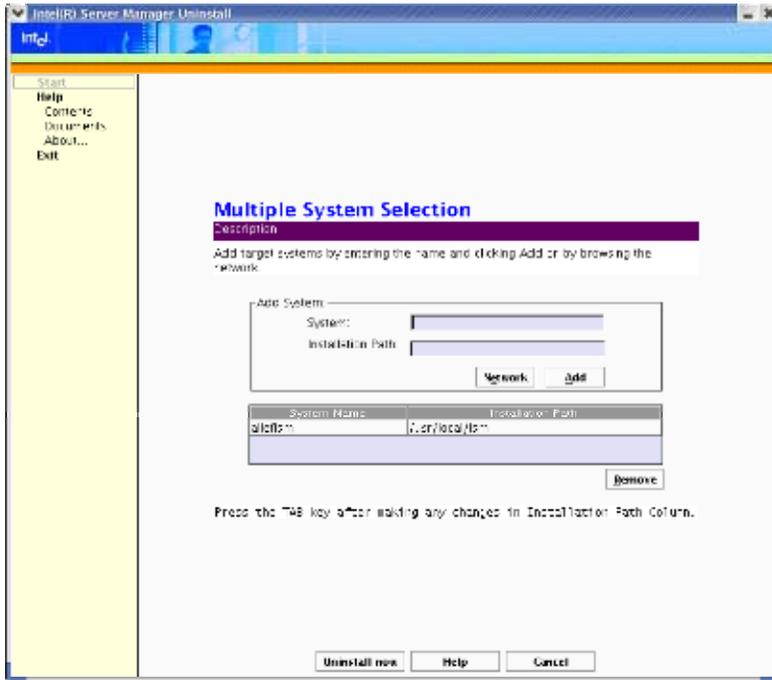


4. Choose the system from where you want to uninstall ISM. Then click “Add”.

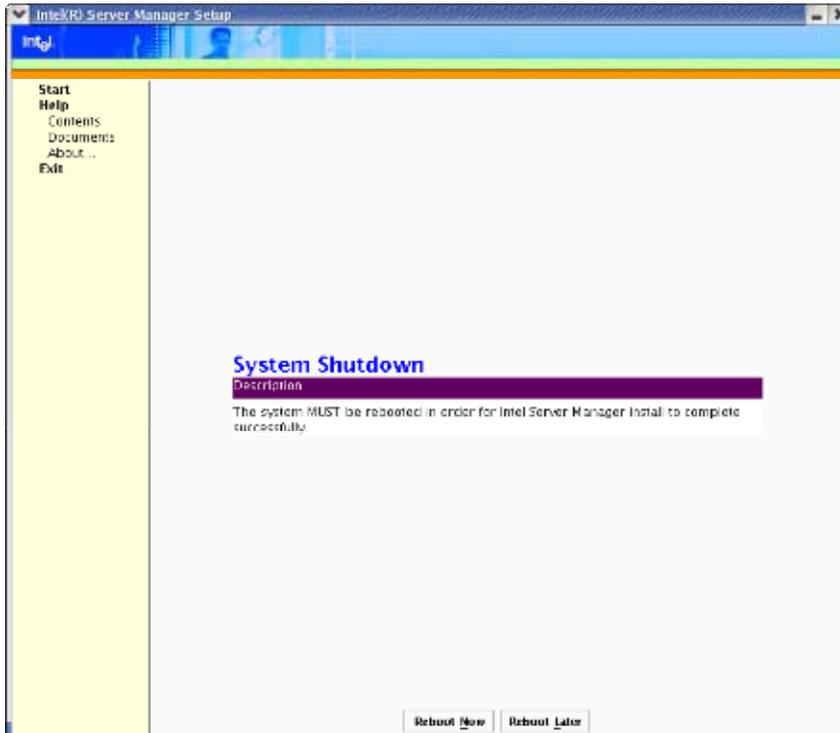


## Installing Intel® Server Manager 8.10 Software on Red Hat® Enterprise Linux 3.0 Uninstalling

5. Click “Uninstall now” to uninstall ISM8.10 from the system you selected.



6. Click “Reboot Now” to finish the uninstall process.



## Glossary

This appendix contains important terms used in the preceding chapters.

Word / Acronym	Definition
ISM8.10	Intel Server manager Ver8.10 – The software used to provide in-band/out of band server management functions for Lindenhurst platforms.
ISM8.10 Server console	Within the server console, this console allows the end to view information and manage alerts for a local server computer. It doesn't allow an end user to view or manage other server computers.
ISM8.10 Admin Console	The Admin Console allows you to manage remote computers on the network. This means you can remotely view information, generate reports, receive alerts, and power on/off other managed computers.
Redhat Enterprise Linux 3.0 AS	Redhat Enterprise Linux 3.0 Advanced Server Version
Redhat Enterprise Linux 3.0 WS	Redhat Enterprise Linux 3.0 WorkStation Version
Redhat Enterprise Linux 3.0 ES	Redhat Enterprise Linux 3.0 Enterprise Server Version
Strong Password	A password at least 7 characters long. Must contain letters (Uppercase and Lowercase), numerals, and symbols.

## ***Reference Documents***

Refer to the following documents for additional information:

- *ism\_getting\_started\_guide, Version 1.0.5 or greater*