CHAPTER 6

Performing Installation of CiscoWorks LAN Management Solution 3.2

This chapter describes how to install and uninstall CiscoWorks LMS 3.2 on Solaris and Windows systems.

It describes the tasks you have to perform for upgrade installing CiscoWorks LMS 3.2 on both Solaris and Windows systems. It also helps you to verify the installation, uninstall, and reinstall LMS 3.2.

The installation process is explained in the following sections:

- Performing New Installation of LMS 3.2
- Upgrading to LMS 3.2
- Verifying the Installation
- Uninstalling LMS 3.2
- Re-installing LMS 3.2

Performing New Installation of LMS 3.2

LMS3.2 is a minor upgrade version over the LMS3.0 release. The new add-on application, HUM1.1 is bundled along with LMS for the first time.

This section explains how to install LMS 3.2 on Windows and Solaris systems for the first time. It contains:

- Installing LMS 3.2 on Solaris - New
- Installing LMS 3.2 on Windows - New
- Installing LMS 3.2 in Silent Mode

The LMS 3.2 installation program takes approximately an hour and a half to complete on Windows and approximately an hour to complete on Solaris, on a single server with the recommended hardware requirements.

This can take more than two hours if you perform network management integration while installing.

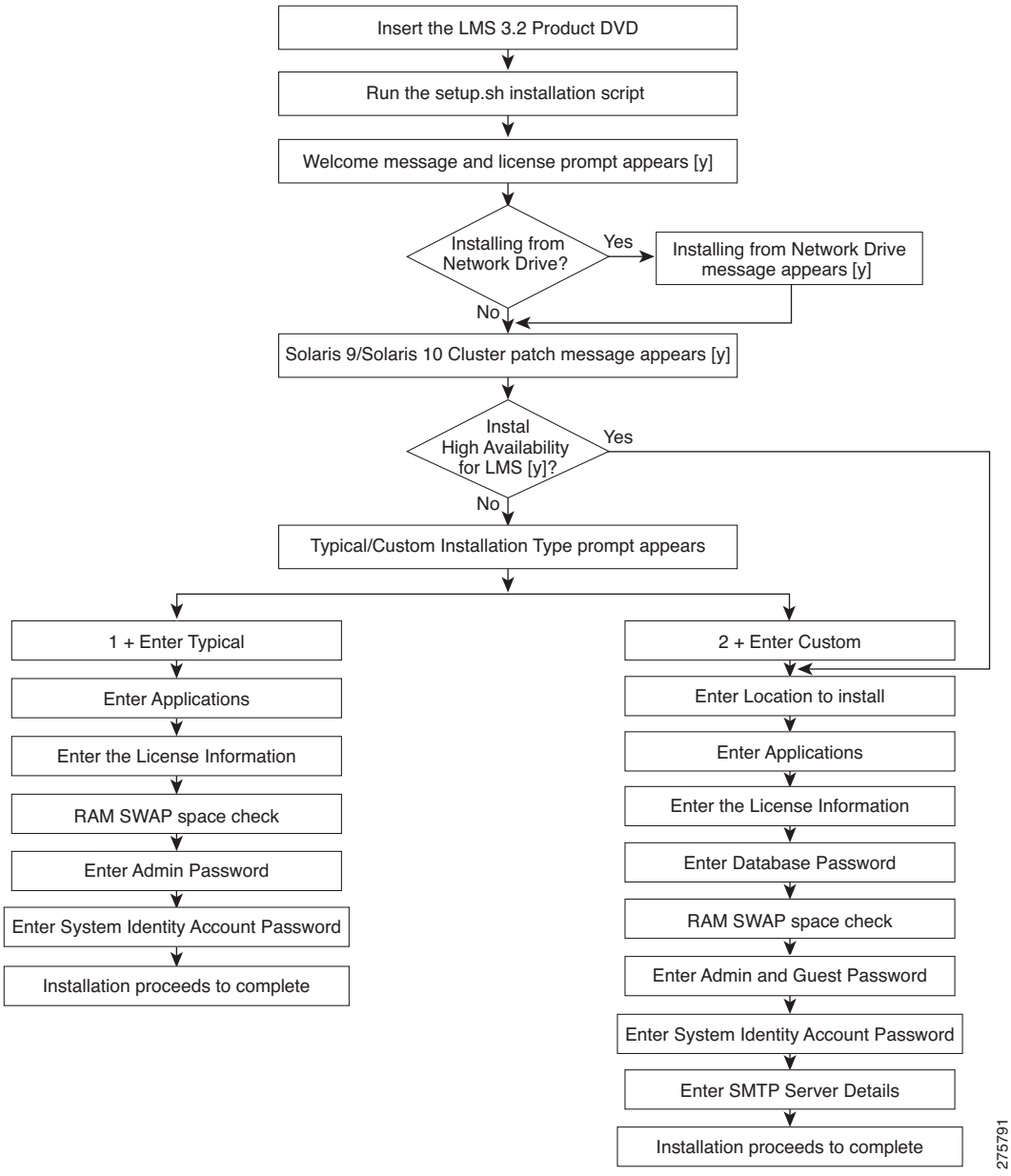
- If Virus Check is enabled in your system, then installation of CiscoWorks applications will take a longer time.
- If HP Openview is running on your system, installation will take a longer time. Disable HP Openview to run a faster installation.

Note While setting up HA and DR environment in LMS server, ensure to set them prior to LMS installation. For further information on HA/DR configuration, see Chapter 4, "Setting Up CiscoWorks LMS in High Availability and Disaster Recovery Environment".

Installing LMS 3.2 on Solaris - New

Figure 6-1 helps you understand the Typical and Custom installation flows in LMS 3.2 on Solaris.

Figure 6-1 LMS 3.2 Installation on Solaris



To install the LMS 3.2 DVD on a Solaris system for the first time:

Step 1 Log into the machine where you want to install LMS 3.2.

Step 2 Insert the LMS 3.2 DVD.

Step 3 Run the installation setup script by entering:

```
# sh setup.sh
```

or

```
# ./setup.sh
```

A Welcome message appears:

```
Welcome to CiscoWorks LAN Management Solution 3.2 Applications setup program.
```

A prompt appears:

```
Press Enter to read/browse the following license agreement:
```

Step 4 Press **Enter** to read the license agreement.

The following message appears at the end of the license agreement:

```
Do you accept all the terms of the License Agreement? (y/n) [n]:
```

Step 5 Enter **Y** to accept the license agreement and proceed with the installation, or enter **N** to deny and quit the installation.

Note Error messages or warning messages appear if you do not have the required or recommended Server and Client patches.

While installing from the network drive, the Installing from Network Drive message appears.

Installation from the network drive will be slower than installing from the local drive.

If you are installing from a network drive, the installation might take longer to complete. This happens especially for CiscoView device packages.

Step 6 Enter **Y** to proceed or **N** to exit installation.

We recommend you download and install the latest required and recommended patches from SUN Microsystem website, before you run LMS. For more information on Solaris patches, see Solaris Patches.

The following warning messages appear to ensure you install the Cluster Patches required for Solaris 9:

```
WARNING: Ensure that you have installed the recommended Solaris 9 cluster patches released
on Dec/11/06, in this server.
WARNING: If these cluster patches are not installed, please download and install them
from http://www.sun.com/.
WARNING: Otherwise, some features of the CiscoWorks applications will not function
properly.
Do you want to continue the installation? (y/n) [y]:
```

The following warning messages appear to ensure you install the Cluster Patches required for Solaris 10:

```
WARNING: Ensure that you have installed the recommended Solaris 10 cluster patches
released on Apr/17/07, in this server.
WARNING: If these cluster patches are not installed, please download and install them
from http://www.sun.com/.
WARNING: Otherwise, some features of the CiscoWorks applications will not function
properly.
```

```
Do you want to continue the installation? (y/n) [y]:
```

If you enter **Y** and proceed with the installation, a message appears prompting you to select any one mode to install.

Step 7 Select any one of the appropriate installation mode to proceed:

- **Typical** to select the components and install the selected components in the default location (/opt/CSCOpx). This is the default installation mode. See Installing LMS 3.2 on Solaris —New (Typical)
- **Custom** to select optional components, customize the settings, and to specify the location. See Installing LMS 3.2 on Solaris — New (Custom)

Installing LMS 3.2 on Solaris —New (Typical)

To install LMS 3.2 for the first time on a Solaris system using the Typical option:

Step 1 At the command prompt, press either:

- **1** and **Enter** to proceed with the installation after you select the Typical mode.

Or

- **Q** to quit the installation.

If you press **Enter** to proceed with the installation, the installation program performs the prerequisites checks and the following message appears:

```
Select the applications you want to install.
1) Common Services 3.3
2) LMS Portal 1.2
3) CiscoWorks Assistant 1.2
4) CiscoView 6.1.9
5) Integration Utility 1.9
6) Resource Manager Essentials 4.3
7) Campus Manager 5.2
8) Device Fault Manager HPOV-NetView adapters 3.2
9) Device Fault Manager 3.2
10) Internetwork Performance Monitor 4.2
11) All of the above
-----Add-on Applications------------------
12)Health and Utilization Monitor 1.2
-----------------------------------------
Select one or more items using its number separated by comma or enter q to quit:
```

Make sure you have sufficient disk space. For disk space requirements, see System and Browser Requirements for Server and Client.

Step 2 Enter the number corresponding to the option you have chosen or **q** to quit.

CiscoWorks Common Services 3.3, LMS Portal 1.2 and CiscoWorks Assistant 1.2 are selected by default to be installed. Apart from them, you can select to install other required applications.

You can select more than one component using the corresponding numbers, separated by commas. For example, select 1, 2, 3, 6 to select Common Services, LMS Portal, CiscoWorks Assistant and Resource Manager Essentials.

Integration Utility 1.9 can be installed independently. It does not depend on Common Services 3.3 or LMS Portal 1.2 or any other application for installation.

You cannot install or reinstall both DFM 3.2 and DFM 3.2 HPOV- Netview Adapters at the same time. If you select both, DFM 3.2 will be selected by default and a message appears to indicate this.

After you select the applications, the following message is displayed:

```
Press Y to reselect the components or Enter to proceed? <y/n> [n]:
```

Step 3 Press either:

- **Y** to change your selection of applications

  Or

- **Enter** to continue with the installation.

The License message appears prompting you to enter the license information for LMS 3.2.

Note If you do not have a license you can select the Evaluation Mode. You must obtain a valid License Key within 90 days.

Step 4 Enter any of the following to specify the license for LMS 3.2:

- **L** and provide the License file location.
- **E** to opt for an evaluation mode. In this mode, you can provide license information later to fully enable the product. This is the default option.
- **Q** to quit the installation.

Note You need to specify the License information only when you install either RME, DFM, IPM CM or HUM. You will not encounter this message while installing other applications.

After specifying the License file for LMS 3.2, the License message appears for HUM.

The evaluation copy of HUM is packaged with LMS 3.2 and you need to purchase a separate license to use HUM.

Step 5 Enter any of the following to specify the license for HUM 1.2:

- **L** and provide the License file location.
- **E** to opt for an evaluation mode. In this mode, you can provide license information later to fully enable the product. This is the default option.
- **Q** to quit the installation.

If you specify the license file for HUM, the following message appears:

```
You have opted to install the licensed version of CiscoWorks HUM 1.2. Before you
install this application, ensure that you have installed a licensed version of LMS
3.2.
```

The above message implies that you can install the licensed version of HUM only over a licensed version of LMS.

If you choose the evaluation option, the following message appears:

```
You have opted to evaluate CiscoWorks HUM 1.2. This evaluation copy is valid only for
90 days. To continue using CiscoWorks HUM 1.2 after 90 days, you should have a valid
purchased license.
```

The installation program calculates the minimum disk space, RAM and SWAP space required for installing the product.

If the disk space is sufficient, the following message appears:

```
Sufficient disk space.
```

If the drive does not have enough space, an error message appears and the installation exits.

Step 6 Enter the CiscoWorks Admin password and confirm it.

For more information on passwords, see Password Information.

Step 7 Enter the System Identity Account Password and confirm it.

This password will be used on all multi-server machines.

A message appears:

```
Do you want to see the passwords that were entered/randomly generated? (y/n) [n]
```

The Device Fault Manager uses a data transport protocol that requires authentication for server-to-server communication. You can retain the existing username and password for securing this interface.

Step 8 Enter **y**.

The following message appears:

```
WARNING: Exiting installation beyond this point might result in system instability.
Do you want to continue the installation? (y/n) [y]:
```

Step 9 Enter **y**.

Installation now proceeds. It takes approximately an hour to complete the installation.

At the end of installation, the following messages appear if the respective applications were installed:

```
WARNING: To ensure that you have the latest device support for RME,
WARNING: please install the latest Device Packages from Cisco.com @
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-rme
WARNING: Please refer to the Installing and Getting Started with CiscoWorks LAN Management
Solution 3.2 guide for details.
```

The above message appears only if you have installed RME.

```
WARNING: To ensure that you have the latest device support for CM,
WARNING: please install the latest Device Packages from Cisco.com @
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-campus
WARNING: Please refer to the Installing and Getting Started with CiscoWorks LAN Management
Solution 3.2 guide for details.
```

The above message appears only if you have installed CM.

```
WARNING: To ensure that you have up-to-date device support,
WARNING: install the latest Service Pack (SP) from Cisco.com, at
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-dfm.
WARNING: For installation details, refer to the Installing and Getting Started with
CiscoWorks LAN Management Solution 3.2 guide.
```

The above message appears only if you have installed DFM.

The installation completes without displaying more questions and the system prompt appears.

The following messages appear at the end of the installation:

```
Software Installation Tool Completed
Possible Warnings/Errors Encountered
```

The warning and error messages that appear after these messages do not hinder the installation. They only indicate that you need to take corrective actions after the installation has completed.

Your Solaris machine has the selected applications of LMS 3.2 installed successfully.

On Solaris 10 if you have selected to install DFM, a warning message may appear prompting you to reboot the machine at the end of installation. If the settings required by DFM are already available, the message may not appear.

Note If cluster patches are installed for Solaris 10, you must reboot your system after installing LMS.

To prepare the client system for use, see System and Browser Requirements for Server and Client.

For troubleshooting information, see Checking Processes After Installationand Understanding Installation Error Messages.

Installing LMS 3.2 on Solaris — New (Custom)

To install LMS 3.2 for the first time on a Solaris system using the Custom option:

Step 1 Go to the command prompt and select either:

- **2** and **Enter** to proceed with the installation after you select the Custom mode.

Or

- **Q** to quit the installation.

If you select **Enter** to proceed with the installation, the following message appears:

```
Enter the location where the product will be installed. The default location is
/opt/CSCOpx. If you choose another location, installation will create a symbolic link
/opt/CSCOpx to that location.
Destination folder should not contain the following characters:
! @ # $ % ^ & * ( ) + | } { " : [ ] ; ' ? < > , . ` = ~
Enter location or q to quit [/opt/CSCOpx]:
```

The Custom path or location you specify cannot be the sub-directory of /opt/CSCOpx.

Caution Do not remove the link after installation. LMS will not work without this symbolic link.

Step 2 Press **Enter** to accept the default directory for product installation, or enter another directory.

```
Select the applications you want to install.
1) Common Services 3.3
2) LMS Portal 1.2
3) CiscoWorks Assistant 1.2
4) CiscoView 6.1.9
5) Integration Utility 1.9
```

```
6) Resource Manager Essentials 4.3
7) Campus Manager 5.2
8) Device Fault Manager HPOV-NetView adapters 3.2
9) Device Fault Manager 3.2
10) Internetwork Performance Monitor 4.2
11) All of the above
-----Add-on Applications------------------
12)Health and Utilization Monitor 1.2
-----------------------------------------
Select one or more items using its number separated by comma or enter q to quit:
```

Make sure you have sufficient disk space. For disk space requirements, see System and Browser Requirements for Server and Client.

Step 3 Enter the number corresponding to the option you have chosen or **q** to quit.

CiscoWorks Common Services 3.3, LMS Portal 1.2 and CiscoWorks Assistant 1.2 are selected by default to be installed. Apart from them, you can select to install other required applications.

You can select more than one component using the corresponding numbers, separated by commas. For example, select 1, 2, 3, 6 to select Common Services, LMS Portal, CiscoWorks Assistant and Resource Manager Essentials.

Integration Utility 1.9 can be installed independently. It does not depend on Common Services 3.3 or LMS Portal 1.2 or any other application for installation.

You cannot install or reinstall both DFM 3.2 and DFM 3.2 HPOV- Netview Adapters at the same time. If you select both, DFM 3.2 will be selected by default and a message appears to indicate this.

```
Press Y to reselect the components or Enter to proceed? <y/n> [n]:
```

Step 4 Press either:

- **Y** to change your selection of applications

  Or

- **Enter** to continue with the installation.

The License message appears prompting you to enter the license information.

Note If you do not have a license you can select the Evaluation Mode. You must obtain a valid License Key within 90 days.

Step 5 Enter any of the following to specify the license for LMS 3.2:

- **L** and provide the License file location.
- **E** for an evaluation mode. In this mode, you can provide license information later to fully enable the product. This is the default option.
- **Q** to quit the installation.

You need to specify the License information only if you are installing either RME, DFM, IPM CM or HUM. You will not encounter this message while installing other applications.

After specifying the License file for LMS 3.2, the Database Password prompt appears.

Step 6 Enter the database password.

This password will be used internally by the product. It must begin with an alphabet and can have 5—15 characters.

For more information on passwords, see Password Information.

The license prompt for HUM appears.

The evaluation copy of HUM is packaged with LMS 3.2 and you need to purchase a separate license to use HUM.

Step 7 Enter any of the following to specify the license for HUM 1.2:

- **L** and provide the License file location.
- **E** to opt for an evaluation mode. In this mode, you can provide license information later to fully enable the product. This is the default option.
- **Q** to quit the installation.

If you specify the license file for HUM, the following message appears:

```
You have opted to install the licensed version of CiscoWorks HUM 1.2. Before you
install this application, ensure that you have installed a licensed version of LMS
3.2.
```

The above message implies that you can install the licensed version of HUM only over the licensed version of LMS.

If you choose the evaluation option, the following message appears:

```
You have opted to evaluate CiscoWorks HUM 1.2. This evaluation copy is valid only for
90 days. To continue using CiscoWorks HUM 1.2 after 90 days, you should have a valid
purchased license.
```

The installation program calculates the minimum disk space, RAM and SWAP space required for installing the product.

- If the disk space is sufficient, the following message appears:

  ```
  Sufficient disk space.
  ```

- If the drive does not have enough space, an error message appears and the installation exits.

Step 8 Enter the CiscoWorks Admin password and confirm it.

For more information on passwords, see Password Information.

Step 9 Enter the Guest password and confirm it.

For more information on passwords, see Password Information.

Step 10 Enter the System Identity Account password and confirm it.

In a multi-server environment, you must configure all systems part of your multi-server setup with the same System Identity Account password.

For more information on passwords, see Password Information.

Step 11 Enter the SMTP server name. For more information, see License Information.

Step 12 Enter the country code, state, city, company, organization, administrator's e-mail address, and Host name/FQDN for HTTPS.

Only the Host name/FQDN is mandatory. You can enter the host name or fully-qualified domain name of the server.

Other fields are optional. Press **Enter** to skip other fields.

Step 13 Enter either:

- **N** not to integrate with a third-party NMS after installation. This completes the installation faster. It also avoids errors that may be caused by third-party integration.

Or

- **Y** to integrate with a third-party NMS during installation.

If you select **Y**:

a. Select any of the following:

- The adapter from the list of available adapters.
- **Other** to choose an adapter that is not listed (you are prompted to enter the path name of the adapter).
- **None** to integrate after the installation is complete.

If you select **None**, go to Step 14.

Many third-party products allow you to launch CiscoWorks applications from within the third-party product. The CiscoWorks applications are launched in a web browser.

b. Enter the full pathname for the web browser.

A message appears prompting you to enable download updates to NMIDB (Network Management Integration Data Bundle) directly from Cisco.com.

c. Select either:

- **N** to disable future updates from Cisco.com.
- **Y** to enable future updates from Cisco.com.

If you select **N**, go to Step 14.

d. Enter your Cisco.com user ID and password.

You must have Cisco.com login privileges. If you do not have a user account and password on Cisco.com, contact your channel partner or enter a request on the standard Cisco.com web site.

The installation program checks dependencies and system requirements and copies the files to the run time (local directory) and the installation proceeds.

A message appears:

```
Do you want to see the passwords that were entered/randomly generated? (y/n) [n]
```

The Device Fault Manager uses a data transport protocol that requires authentication for server-to-server communication. You can retain the existing username and password for securing this interface.

Step 14 Enter **Y**.

A message appears:

```
Exiting installation beyond this point might result in system instability.
Do you want to continue the installation? (y/n) [y]
```

Step 15 Enter **Y**.

Installation now proceeds. At the end of installation, the following messages appear:

```
WARNING: To ensure that you retain the latest device support for RME,
WARNING: please install the latest Device Packages from Cisco.com @
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-rme
WARNING: Please refer to the Installing and Getting Started with CiscoWorks LAN Management
Solution 3.2 guide for details.
```

The above message appears only if you have installed RME.

```
WARNING: To ensure that you retain the latest device support for CM,
WARNING: please install the latest Device Packages from Cisco.com @
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-campus
WARNING: Please refer to the Installing and Getting Started with CiscoWorks LAN Management
Solution 3.2 guide for details.
```

The above message appears only if you have installed CM.

```
WARNING: To ensure that you have up-to-date device support,
WARNING: install the latest Service Pack (SP) from Cisco.com, at
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-dfm.
WARNING: For installation details, refer to the Installing and Getting Started with
CiscoWorks LAN Management Solution 3.2 guide.
```

The above message appears only if you have installed DFM.

The installation completes without displaying more questions and the system prompt appears.

It takes approximately an hour to complete the installation.

The following messages appear at the end of the installation:

```
Software Installation Tool Completed
Possible Warnings/Errors Encountered
```

The warning and error messages that appear after these messages do not hinder the installation. They only indicate that you need to take corrective actions after the installation has completed.

Your Solaris machine has the selected applications of LMS 3.2 installed successfully.

On Solaris 10 if you have selected to install DFM, a warning message may appear prompting you to reboot the machine at the end of installation. If the settings required by DFM are already available, the message may not appear.

Note If cluster patches are installed for Solaris 10, you must reboot your system after installing LMS.

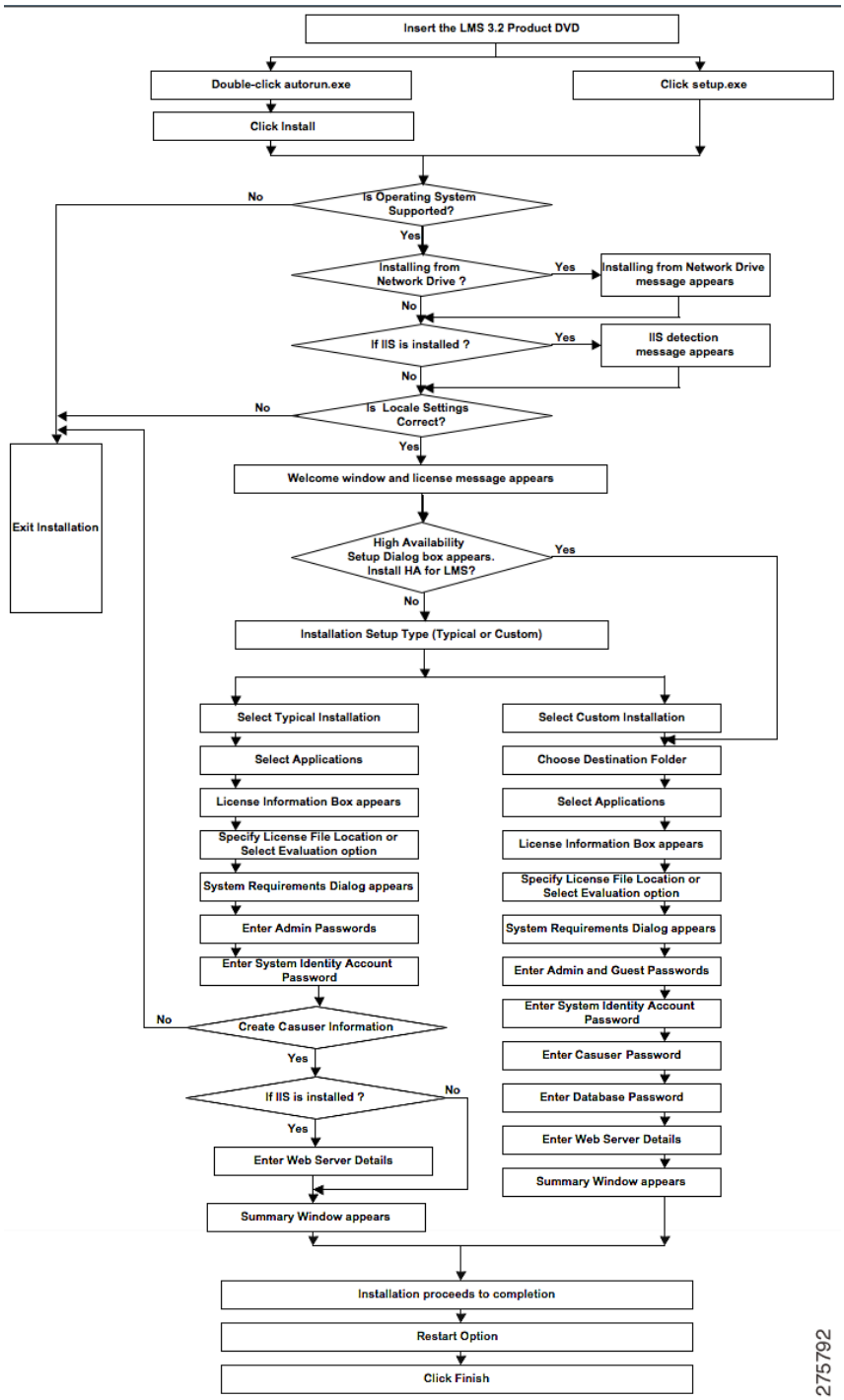
To prepare the client system for use, see System and Browser Requirements for Server and Client.

For troubleshooting information, see Checking Processes After Installationand Understanding Installation Error Messages.

Installing LMS 3.2 on Windows - New

Figure 6-2 helps you understand the Typical and Custom installation flows in LMS 3.2 on Windows.

Figure 6-2 LMS 3.2 Installation On Window



To install LMS 3.2 on a Windows system for the first time:

Step 1 Login as administrator to the machine where you want to install LMS 3.2.

a. Insert the LMS 3.2 DVD.

b. Double-click on the autorun.exe or setup.exe file.

The CiscoWorks LAN Management Solution 3.2 Applications window appears.

c. Click **Install** to continue.

While installing from the network drive, the Installing from Network Drive window appears.

Installation from network drive will be slower than installing from the local drive.

Step 2 Click **Yes** to proceed or **No** to exit installation.

The Internet Information Services (IIS) detection message appears.

When Internet Information Services (IIS) is detected on your system and if you have continued the installation without IIS services, you cannot use the port number 443 for HTTPS.

Instead, you must use the port numbers ranging from 1026 to 65535 for HTTPS to avoid this conflict.

Step 3 Click **Yes** or **No** to continue.

Installation checks for the Regional Settings. They have to be set either as US English or Japanese.

If the Primary settings point to an unsupported locale, installation aborts with the following message appears:

```
You are trying to install CiscoWorks on an unsupported locale. CiscoWorks supports only
US English or Japanese languages. Please reinstall your Operating System with a supported
locale and change the Regional Settings to either of these languages.
```

The Welcome window appears.

Step 4 Click **Next** to continue.

The Software License Agreement window appears. You must accept this agreement to install CiscoWorks LMS 3.2.

Step 5 Click **Accept** to continue.

If you are trying to install on an unsupported platform, the following error message appears:

```
You cannot install CiscoWorks LMS 3.2 application(s) on an unsupported operating system
or when Terminal Services is running on the supported Windows 2003 Server Standard
Edition, Windows 2003 Server Enterprise Edition, and Windows 2003 R2 Server platforms

The setup program will exit when you click OK

You must either upgrade the operating system on the server to a supported version or
install LMS 3.2 application(s) on another server that runs a supported operating system.
```

You cannot install LMS 3.2 on Windows 2000 server platform. You need to upgrade to Windows 2003 operating system and then continue with installation. If not, installation will terminate.

When you have the recommended platform, the installation continues.

If you are trying to install CiscoWorks Common Services on a Primary Domain Controller or Backup Domain Controller, installation terminates after showing the following error message:

```
You are attempting to install CiscoWorks Common Services 3.3 on a server that is
configured as a Primary Domain Controller or a Backup Domain Controller (PDC/BDC).
```

Install CiscoWorks Common Services 3.3 on another server not configured as PDC / BDC.

The High Availability Detection dialog box appears if any Symantec Veritas products are installed on the same server.

You can select the Install High Availability Agent for LMS checkbox to setup the High Availability environment for LMS.

If you do so, the installation will continue in Custom mode only.

Otherwise, the Setup Type dialog box appears.

Step 6 Select one of the following:

- **Typical** to select the components and install the selected components in the default location (*System Drive*\Program Files\CSCOpx). This is the default installation mode. See Installing LMS 3.2 on Windows — New (Typical)
- **Custom** to select the components, customize the settings, and to specify the location. See Installing LMS 3.2 on Windows —New (Custom)

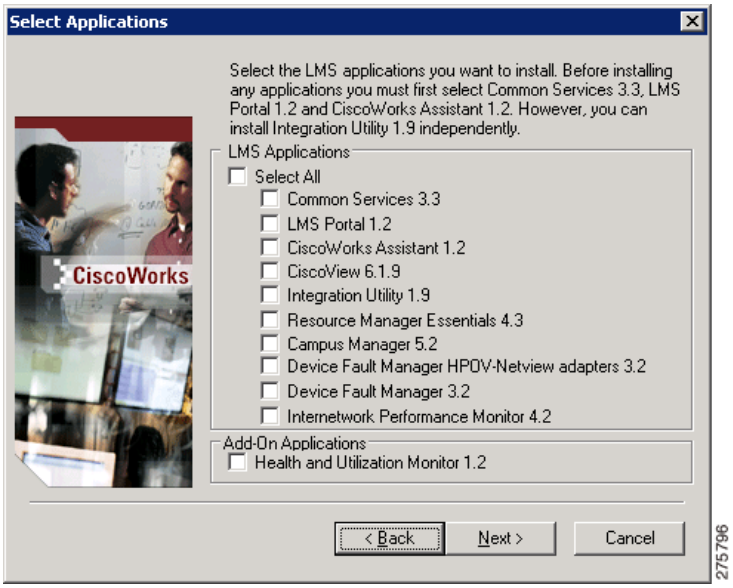
Installing LMS 3.2 on Windows — New (Typical)

To install LMS 3.2 for the first time on a Windows system using the Typical option:

Step 1 Click **Next** to continue after you select the Typical installation mode.

The Select Applications dialog box appears as given in Figure 6-3:

Figure 6-3 Select Applications Dialog box in New Installation



CiscoWorks Common Services 3.3, LMS Portal 1.2 and CiscoWorks Assistant 1.2 are selected by default to be installed. You can opt to install the other required applications.

You can select the required applications by checking the corresponding check-boxes.

Integration Utility 1.9 can be installed independently. It does not depend on Common Services 3.3 or LMS Portal 1.2 or any other application for installation.

You cannot install or reinstall both DFM 3.2 and DFM 3.2 HPOV- Netview Adapters at the same time. If you select both, DFM 3.2 will be selected by default and a message appears to indicate this.

Step 2 Click **Next** after selecting the applications to install and continue.

The Licensing Information dialog box appears for LMS 3.2.

Step 3 Specify the License File Location.

If you do not have a license you can select the Evaluation Mode, which is the default option. You must obtain a valid License Key within 90 days.

Note You need to specify the License information only when you install either RME, DFM, IPM, CM or HUM. You will not encounter this message while installing other applications.

After specifying the License file for LMS 3.2, the Licensing Information dialog box appears for HUM.

The evaluation copy of HUM is packaged with LMS 3.2 and you need to purchase a separate license to use HUM.

Step 4 Specify the License File Location or select the Evaluation option.

- If you specify the license file for HUM, the following message appears:

  ```
  You have opted to install the licensed version of CiscoWorks HUM 1.2. Before you
  install this application, ensure that you have installed a licensed version of LMS
  3.2.
  ```

  The above message implies that you can install the licensed version of HUM over the licensed version of LMS.

- If you choose the evaluation option, the following message appears:

  ```
  You have opted to evaluate CiscoWorks HUM 1.2. This evaluation copy is valid only for
  90 days. To continue using CiscoWorks HUM 1.2 after 90 days, you should have a valid
  purchased license.
  ```

Step 5 Click **OK**.

The System Requirements dialog box appears.

The Installation program checks the system configuration and required space.

Step 6 Click **Next**.

The Change Admin Password box appears.

Step 7 Enter the User Admin password and confirm it.

For more information on passwords, see Password Information, page A-7.

Step 8 Click **Next** to continue installation.

The Change System Identity Account password dialog box appears.

Step 9 Enter the System Identity Account password and confirm it.

In a multi-server environment, you must configure all systems that are part of your multi-server setup with the same System Identity Account password.

For more information on passwords, see Password Information, page A-7.

Step 10 Click **Next**.

The Create casuser information box appears.

Casuser is the user who administers and maintains CiscoWorks Server, without having administrative privileges.

Step 11 Click **Yes** to continue with installation or **No** to abort.

The Web Server dialog box appears.

Step 12 Enter HTTPS port, server administrator e-mail address, and the SMTP server name.

The HTTPS port and SMTP server name are mandatory.

The default HTTPS port number is 443. The SMTP server name is used by other CiscoWorks applications.

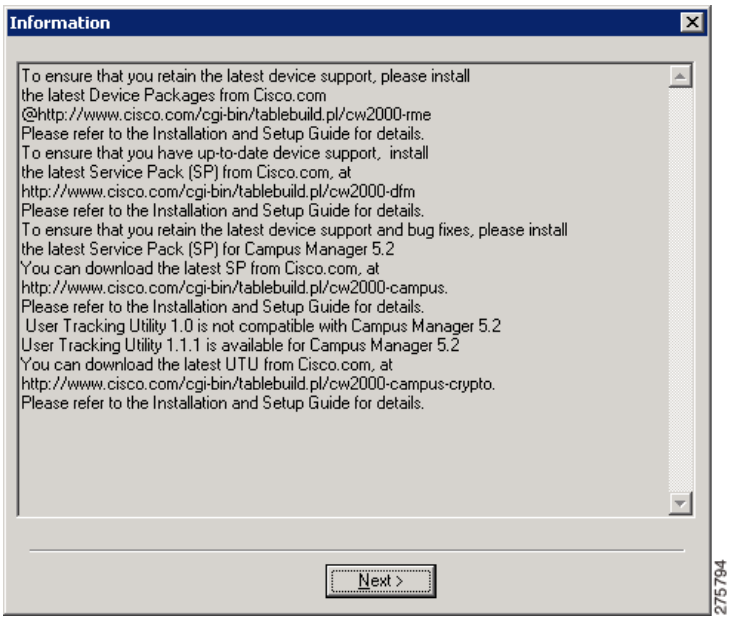
Note When IIS is detected on your system, to avoid any conflict with HTTPS, you need to use different port numbers for HTTPS ranging from 1026 to 65535.

Step 13 Click **Next**.

Installation continues.

At the end of installation, based on the applications you have selected to install or reinstall, warning messages appear. These messages prompt you to install the latest device updates as indicated in Figure 6-4.

Figure 6-4 Device Updates Information



Step 14 Click **OK** and proceed to complete the installation.

Information about the various LMS applications, their features and benefits are displayed during installation.

The Restart dialog box appears after the installation is complete.

You need to restart your machine after you have installed LMS 3.2.

Step 15 Select **Yes, I want to restart my computer now.**

Step 16 Click **Finish**.

To prepare the client system for use, see System and Browser Requirements for Server and Client, page 2-1.

For troubleshooting information, see Checking Processes After Installation, page 8-1and Understanding Installation Error Messages, page 8-5.

Installing LMS 3.2 on Windows —New (Custom)

To install LMS 3.2 for the first time on a Windows system using the Custom option:

Step 1 Click **Next** to continue after you select the Custom installation mode.

The Choose Destination Folder dialog box appears.

The default folder is SystemDrive:\Program Files\CSCOpx. You can choose the destination folder where CiscoWorks will be installed.

Step 2 Click **Next**.

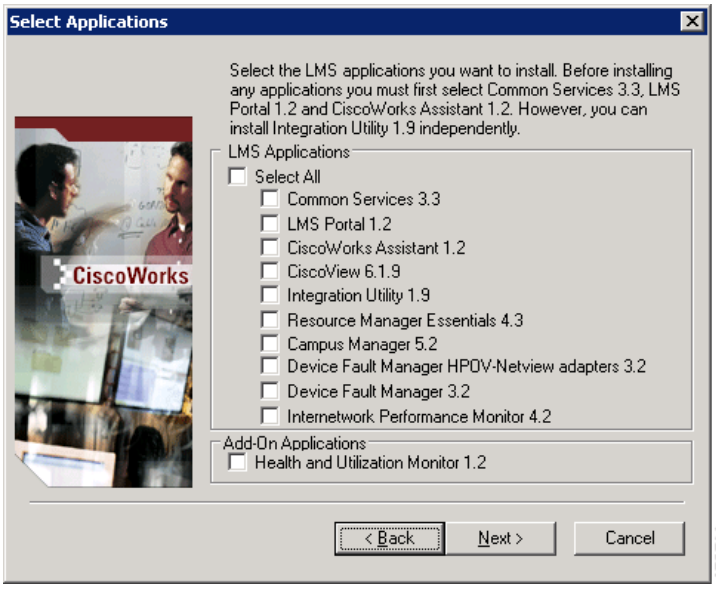
The Change Destination Folder dialog box appears if the destination folder location was entered in Step 1.

You can either select a new destination folder or confirm the one that you selected earlier.

Step 3 Click **Next** to proceed.

The Select Applications dialog box appears as given in Figure 6-5:

Figure 6-5 Select Applications Dialog box in New Installation



CiscoWorks Common Services 3.3, LMS Portal 1.2 and CiscoWorks Assistant 1.2 are selected by default to be installed. Apart from them, you can opt to install other applications.

You can select the required applications by checking the corresponding check-boxes.

Integration Utility 1.9 can be installed independently. It does not depend on Common Services 3.3 or LMS Portal 1.2 or any other application for installation.

You cannot install or reinstall both DFM 3.2 and DFM 3.2 HPOV- Netview Adapters at the same time. If you select both, DFM 3.2 will be selected by default and a message appears to indicate this.

Step 4 Click **Next** after selecting the applications to install and continue.

The Licensing Information dialog box appears for LMS 3.2.

Step 5 Specify the License File Location.

If you do not have a license you have the option of selecting the Evaluation Mode, which is the default option. You must obtain a valid License file within 90 days.

Note You need to specify the License information only if you are installing either RME, DFM, IPM or CM. You will not encounter this message while installing other applications.

After specifying the License file for LMS 3.2, the Licensing Information dialog box appears for HUM.

The evaluation copy of HUM is packaged with LMS 3.2 and you need to purchase a separate license to use HUM.

Step 6 Specify the License File Location or select the Evaluation option.

- If you specify the license file for HUM, the following message appears:

  ```
  You have opted to install the licensed version of CiscoWorks HUM 1.2. Before you
  install this application, ensure that you have installed a licensed version of LMS
  3.2.
  ```

  The above message implies that you can install the licensed version of HUM only over the licensed version of LMS.

- If you choose the evaluation option, the following message appears:

  ```
  You have opted to evaluate CiscoWorks HUM 1.2. This evaluation copy is valid only for
  90 days. To continue using CiscoWorks HUM 1.2 after 90 days, you should have a valid
  purchased license.
  ```

Step 7 Click **OK.**

The System Requirements dialog box appears.

The installation program checks the system configuration and required space.

Step 8 Click **Next**.

The Change Admin and Guest Password box appears.

Step 9 Enter user admin and user guest passwords and confirm them.

For more information on passwords, see Password Information, page A-7.

Step 10 Click **Next** to continue installation.

The Change System Identity Account password dialog box appears.

Step 11 Enter the System Identity Account password and confirm it.

In a multi-server environment, you must configure all systems that are a part of your multi-server setup with the same System Identity Account password.

For more information on passwords, see Password Information, page A-7.

Step 12 Click **Next**.

The Change casuser Password dialog box appears.

Casuser is the user who can administer and maintain CiscoWorks Server even without administrative privileges.

Step 13 Enter the casuser password and confirm it.

If you do not enter a password, the installation program generates a random password and adds the new user casuser and the new group casusers to the system.

Step 14 Click **Next** to continue.

The Database Password dialog box appears.

Step 15 Enter the database password.

This password will be used internally by the product. It must begin with an alphabet and can have 5 — 15 characters.

For more information on passwords, see Password Information, page A-7.

Step 16 Click **Next**.

The Web Server dialog box appears.

Step 17 Enter HTTPS port, server administrator e-mail address, and the SMTP server name.

The default HTTPS port number is 443. The SMTP server name is used by other CiscoWorks applications. The HTTPS port and SMTP server name are mandatory.

Note When IIS is detected on your system, to avoid any conflict with HTTPS, you need to use different port numbers for HTTPS ranging from 1026 to 65535.

Step 18 Click **Next** to continue installation.

The Self-Signed Certificate dialog box appears. The webserver uses the self-signed certificate while operating in the secure mode.

Step 19 Enter the country code, state, city, company, organization, and Host name/FQDN for HTTPS.

Only the Host name/FQDN is mandatory. You can enter the host name or fully-qualified domain name of the server.

Step 20 Click **Next** to continue installation.

The Summary window appears with the updates that will be installed and the settings for the installation. You can click **Back** to go back and edit the settings if required.

Step 21 Click **Next** to continue installation.

At the end of installation, based on the applications you have selected to install or reinstall, warning messages appear. These messages prompt you to install the latest device latest updates as indicated in Figure 6-4.

Step 22 Click **OK** and proceed to complete the installation.

Information about the various LMS applications, their features and benefits are displayed during installation.

The Restart dialog box appears after the installation is complete.

You must restart your machine after you have installed LMS 3.2.

Step 23 Select **Yes, I want to restart my computer now.**

Step 24 Click **Finish**.

To prepare the client system for use, see System and Browser Requirements for Server and Client.

For troubleshooting information, see Checking Processes After Installationand Understanding Installation Error Messages.

Installing LMS 3.2 in Silent Mode

Silent installation or unattended installation is supported in the LMS single installer. You can perform only a fresh installation of LMS 3.2 in silent installation mode.

Silent install does not prompt for your inputs. It continues the installation based on your inputs provided in a file. You should save the installation inputs in a file and store the file in the system. See Creating an Answer File and Sample Answer Files for more information.

To install LMS 3.2 in silent mode:

Step 1 Insert the LMS 3.2 DVD.

Step 2 Navigate to images/disk1 directory at the command prompt.

Step 3 Enter the following commands to install LMS 3.2 in silent mode:

- On Solaris: **`sh setup.sh -q`** *answer_file_name*
- On Windows: **`setup.exe QUIET answerfile=`***answer_file_name*

where *answer_file_name* is the full path of the user input file stored on the system.

The installation starts.

Step 4 Restart your system after the installation is complete.

Creating an Answer File

The answer file is an ASCII file that provides the required inputs for quiet installations.

The answer file contains the following name=value pairs:

Property	Description
destination	Optional. Allows quiet installation to install into a directory other than *NMSROOT*. If not specified, installation goes into /opt/CSCOpx on Solaris or c:\Program Files\CSCOpx on Windows.
adminPassword	Specifies the login password for the admin user. This is mandatory.
secretPassword (Solaris only)	Specifies the login password for the secret user.

casuser (Windows Only)	If casuser password does not exist by the time of installation, the framework generates random password for casuser. • If the random password is successful, then no input is required. • If the random password fails, installation opens a dialog requesting new password. In quiet mode, installation attempts to load the casuser password from the answer file. If no casuser password is specified in the answer file, installation attempts random password, and might fail if the random password does not pass the company policy.
systemIdentityAccountPassword (Windows only)	Password for the System Identity Account. This is mandatory.

Sample Answer Files

On Windows:

```
#--- begin answer file
#--- hash sign (#) is allowed to mark comments
systemIdentityAccountPassword=admin
casuser=casuser
destination=C:\PROGRA~1\CSCOpx
adminPassword=admin
#--- end of answer file
```

On Solaris:

```
#cat /tmp/answer_file
##Sample Answer file
adminPassword=admin
secretPassword=admin
destination=/opt/CSCOpx
```

The sample answer files are also available in the Software image at the directory disk1/install.

Upgrading to LMS 3.2

The following upgrade paths are supported:

LMS Version	Upgrade Path
• LMS 1.x • LMS 2.0 • LMS 2.1	Upgrade to LMS 3.2 is not supported. You should perform a fresh installation of LMS 3.2.
• LMS 2.2	You cannot directly upgrade to LMS 3.2. The suggested upgrade path is: • Remote Upgrade to LMS 2.6/LMS 3.0 OR Local Upgrade to LMS 2.6 • Upgrade to LMS 3.2
• LMS 2.5 • LMS 2.5.1	You cannot directly upgrade to LMS 3.2. The suggested upgrade path is: LMS 2.5/LMS 2.5.1 > LMS 2.6 > LMS 3.2
• LMS 2.6 • LMS 2.6 SP1 • LMS 3.0 • LMS 3.0 December 2007 Update • LMS 3.1	You can perform a local or remote upgrade to LMS 3.2. For remote upgrade, you should have the same Operating System on both machines. For example, you cannot restore the data backed up from the Solaris Server on a Windows Server for remote upgrade.

This section contains information on:

Local Upgrade to LMS 3.2 on Solaris

To upgrade to LMS 3.2 on the same Solaris machine, you can select the relevant option from the following:

- Customers having LMS 2.5 or LMS 2.5.1, must first install LMS 2.6, available from Cisco.com and then proceed to upgrade LMS 3.2 from the DVD.

  The LMS 2.6 is available at the location: http://www.cisco.com/cgi-bin/tablebuild.pl/lms26.

  For install instructions, see the Readmes at: http://www.cisco.com/en/US/products/sw/cscowork/ps2425/prod_installation_guides_list.html.

- Customers upgrading from LMS 2.6, LMS 2.6 SP1, LMS 3.0, LMS 3.0 December 2007 update or LMS 3.1 can directly upgrade to LMS 3.2.

Note We recommend that you take a backup of your data before you start the upgrade.

To upgrade to LMS 3.2 on the same Solaris machine:

Step 1 Log in as root to the machine where LMS 2.6, LMS 2.6 SP1, LMS 3.0, LMS 3.0 December 2007 update or LMS 3.1 is already installed.

Step 2 Insert the LMS 3.2 DVD.

Step 3 Run the installation setup script by entering:

```
# sh setup.sh
```

or

```
# ./setup.sh
```

When you upgrade from a LMS 3.0/LMS 3.1machine, that has the evaluation version of HUM installed, the following message appears:

```
You have opted to upgrade the LMS version from Version to 3.2. If you have an evaluation
version of HUM, ensure that you uninstall the evaluation version before upgrading. If you
have a valid license for HUM, ensure that you apply the license before upgrading.
```

Do the following:

a. Uninstall the evaluation version of HUM. For details, see Uninstalling LMS 3.2 on Solaris

b. Repeat Step 3.

   OR

   Apply the license for HUM and proceed with the upgrade.

A Welcome message appears:

```
Welcome to CiscoWorks LAN Management Solution 3.2 Applications setup program.
```

A prompt appears:

```
Press Enter to read/browse the following license agreement:
```

Step 4 Press **Enter** to read the License Agreement.

The following message appears at the end of the License Agreement:

```
You must accept this License Agreement to proceed with the installation.
If you enter N/n, the installation will exit.
Do you accept all the terms of the License Agreement? (y/n) [n]:
Do you want to proceed? (y/n) [y]:
```

Step 5 Enter **Y** to accept the License Agreement and proceed with the installation.

Or

Enter **N** to deny and quit the installation.

If you are installing the image from a network drive, a message appears indicating that installation will be slower when compared to installing from the local drive. This happens especially for CiscoView device packages.

Step 6 Enter **y** to continue.

The following backup prompt appears:

```
Enter the backup directory:
```

Step 7 Specify the directory where the backup is to be stored.

Error messages or warning messages appear if you do not have the required or recommended Server and Client patches.

We recommend you download and install the latest required and recommended patches from http://www.sun.com before you run LMS applications. For more information on Solaris patches, see Solaris Patches.

If any of the required Server patches is missing, warning messages appear.

The following warning messages appear to ensure you install the Cluster Patches required for Solaris 9:

```
WARNING: Ensure that you have installed the recommended Solaris 9 cluster patches released
on Dec/11/06, in this server.
WARNING: If these cluster patches are not installed, please download and install them
from http://www.sun.com/.
WARNING: Otherwise, some features of the CiscoWorks applications will not function
properly.
Do you want to continue the installation? (y/n) [y]:
```

The following warning messages appear to ensure you install the Cluster Patches required for Solaris 10:

```
WARNING: Ensure that you have installed the recommended Solaris 10 cluster patches
released on Apr/17/07, in this server.
WARNING: If these cluster patches are not installed, please download and install them
from http://www.sun.com/.
WARNING: Otherwise, some features of the CiscoWorks applications will not function
properly.
Do you want to continue the installation? (y/n) [y]:
```

If you enter **Y** and proceed with the installation, the following message appears prompting you to select the type of setup for installation.

```
Choose the type of Setup you prefer.
1)Typical installation. For most users.
Select components to be installed.
Enter Admin and System Identity Account passwords for new installation.
Generates Guest, Database passwords. Retains them for upgrade and reinstallation.
2)Custom installation. For advanced users.
Select components to be installed.
Enter Admin, Guest, System Identity Account, Database passwords for new installation.
Retains them for upgrade and reinstallation.
Select one of the installation modes using its number or (q) to quit [1]:
```

Step 8 Select the appropriate mode of upgrade installation.

You can perform an upgrade install LMS 3.2 using either the Typical or Custom mode:

- **Typical** to choose the components and install the selected components in the default location (/opt/CSCOpx). This is the default installation mode. See the section, Local Upgrade to LMS 3.2 on Solaris — Typical
- **Custom** to choose the components, customize the settings, and to specify the location. See the section, Local Upgrade to LMS 3.2 on Solaris — Custom

Local Upgrade to LMS 3.2 on Solaris — Typical

To perform a local upgrade to LMS 3.2 on a Solaris machine, using the Typical option:

Step 1 Go to the command prompt and select either:

- **1** and **Enter** to proceed with the installation after you select the Typical mode.

Or

- **Q** to quit the installation.

If you press **Enter** a list of the applications appears.

```
1) Common Services 3.3
2) LMS Portal 1.2
3) CiscoWorks Assistant 1.2
4) CiscoView 6.1.9
5) Integration Utility 1.9
6) Resource Manager Essentials 4.3
7) Campus Manager 5.2
8) Device Fault Manager HPOV-NetView adapters 3.2
9) Device Fault Manager 3.2
10) Internetwork Performance Monitor 4.2
11) All of the above
-----Add-on Applications-----------------
12)Health and Utilization Monitor 1.2
----------------------------------------
```

You can select and install one or more applications. By default the applications you installed in the earlier version of LMS appear as selected for upgrade.

Step 2 Enter the number corresponding to the option you have chosen or **Q** to quit.

Make sure you have sufficient disk space. For disk space requirements, see System and Browser Requirements for Server and Client.

The existing applications in the earlier version of LMS, are upgraded to their latest versions by default when you install LMS 3.2.

You can select more than one application. To do this enter the numbers of the options, separated by commas.

After you select the applications, the following message is displayed:

```
Press y to reselect the components or Enter to continue
```

Step 3 Press **y** to reselect the components or **Enter** to continue the installation.

The License message appears prompting you to enter the License information.

Note If you have installed LMS 3.0 or LMS 3.1 with a purchase license, you will not be prompted for license information. You can directly upgrade to LMS 3.2

Step 4 Specify the License file location.

You need to specify the License information only if you are installing either RME, DFM, IPM CM or HUM. You will not encounter this message while installing other applications.

If your CiscoWorks Server is in ACS mode, the following message appears:

```
INFO: Ciscoworks server is in ACS mode.
WARNING: The application that you are installing requires new tasks to be registered with
WARNING: ACS. If you have already registered this application with ACS from another
WARNING: server, you do not need to register it again.
WARNING: However if you re-register the application, you will lose any custom roles that
WARNING: you had created earlier for this application in ACS.
WARNING: Some features in ACS may not work correctly on Dual-stack servers.
```

Step 5 Enter:

- **y** to register the applications immediately and continue the installation.

Or

- **n** to register the applications later and continue the installation.

Based on size of the backed-up data, the time required to build the CiscoWorks database is calculated and the following message appears:

```
Rebuilding databases in CiscoWorks may take approximately X minutes. Do you want to
upgrade the product now? (y/n) [y]:
```

In the above message, *X* is the time calculated to build the database.

Entering **n** terminates the installation.

Step 6 Enter **y** to continue with the installation.

For HUM:

- If you have installed HUM 1.0 or HUM 1.1 with a purchase license, you can directly upgrade to HUM 1.2. You will not be prompted for license information. Skip Step 7.
- If you have installed HUM 1.0 or HUM 1.1 with an evaluation license, you can first apply the upgrade license to HUM 1.2 or unselect HUM from installation. Otherwise, the installation program exits. See Step 3 in Local Upgrade to LMS 3.2 on Solaris for details.
- If you are installing for the HUM 1.2 for the first time, a separate licensing screen appears as given in Step 7.

  The evaluation copy of HUM is packaged with LMS 3.2 and you need to purchase a separate license to use HUM.

Step 7 Enter any of the following to specify the license for HUM 1.2:

- **L** and provide the License file location.
- **E** to opt for an evaluation mode. In this mode, you can provide license information later to fully enable the product. This is the default option.
- **Q** to quit the installation.

If you specify the license file for HUM, the following message appears:

```
You have opted to install the licensed version of CiscoWorks HUM 1.2. Before you
install this application, ensure that you have installed a licensed version of LMS
3.2.
```

The above message implies that you can install the licensed version of HUM only over the licensed version of LMS.

If you choose the evaluation option, the following message appears:

```
You have opted to evaluate CiscoWorks HUM 1.2. This evaluation copy is valid only for
90 days. To continue using CiscoWorks HUM 1.2 after 90 days, you should have a valid
purchased license.
```

The installer displays the following message when you upgrade to HUM 1.2:

```
You are now upgrading to HUM 1.2. This version supports 64-bit counters for interface
utilization. After the upgrade, all pollers configured for interface utilization of
high speed interfaces will automatically be re-configured to poll 64-bit counters.
```

Step 8 Press **Enter** to continue the installation.

The installation program calculates the minimum disk space, RAM and SWAP space required to install the product. It also calculates the space required to rebuild the database.

- If the disk space is sufficient, the following message appears:

  ```
  Sufficient disk space.
  ```

- If the drive does not have enough space, an error message appears and the installation exits.

The Installation program provides a tool called Performance Tuning Tool (PTT), which fine-tunes RME to utilize the system resources better. If the CiscoWorks server has a dual CPU with 4 GB RAM, the following message appears:

```
Do you want to tune RME to better utilize the available System resources, and improve
performance?

Select Yes, to tune the performance parameters of RME towards the end of installation.
Select No, to continue running RME using the existing default parameters. If you select
No, you can tune the parameters later by running rmeptt CLI utility. See the "Performance
Tuning Tool" section of RME user Guide for Details.<y/n> [n]:
```

Step 9 Enter:

- **y** to tune RME for better utilization of System Resources

  Or

- **n** to continue with the installation.

If you select **y**, RME is fine tuned at the end of the installation.

For CiscoWorks Assistant alone, a random password is generated and the following message appears:

```
Do you want to see the passwords that were entered/randomly generated? If yes, please
remember that passwords are security sensitive data and hence make sure they are kept
secure.? (y/n) [n]:
```

Step 10 Enter **y**.

The following message appears:

```
WARNING: Exiting installation beyond this point might result in system instability.
Do you want to continue the installation? (y/n) [y]:
```

Step 11 Enter **y**.

Installation now proceeds. At the end of installation, the following messages appear if you installed the respective applications:

```
WARNING: To ensure that you retain the latest device support for RME,
WARNING: please install the latest Device Packages from Cisco.com@
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-rme
WARNING: Please refer to the Installing and Getting Started with CiscoWorks LAN Management
Solution 3.2 guide for details.
```

The above message appears only if you have installed RME.

```
WARNING: To ensure that you retain the latest device support for CM,
WARNING: please install the latest Device Packages from Cisco.com @
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-campus
WARNING: Please refer to the Installing and Getting Started with CiscoWorks LAN Management
Solution 3.2 guide for details.
```

The above message appears only if you have installed CM.

```
WARNING: To ensure that you have up-to-date device support,
WARNING: install the latest Service Pack (SP) from Cisco.com, at
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-dfm.
WARNING: For installation details, refer to the Installing and Getting Started with
CiscoWorks LAN Management Solution 3.2 guide.
```

The above message appears only if you have installed DFM.

The installation completes without displaying more questions and the system prompt appears. It takes about an hour to complete the installation.

The following messages appear at the end of the installation:

```
Software Installation Tool Completed
Possible Warnings/Errors Encountered
```

The warning and error messages that appear after these messages do not hinder the installation. They only indicate that you need to take corrective actions after the installation has completed.

Your Solaris machine has the selected applications of LMS 3.2 installed successfully.

Note On Solaris 10 if you have selected to install DFM, a warning message may appear prompting you to reboot the machine at the end of installation. If the settings required by DFM are already available, the message may not appear.

Note If cluster patches are installed for Solaris 10, you must reboot your system after installing LMS.

To prepare the client system for use, see System and Browser Requirements for Server and Client.

For troubleshooting information, see Checking Processes After Installation and Understanding Installation Error Messages.

Local Upgrade to LMS 3.2 on Solaris — Custom

To perform a local upgrade to LMS 3.2 on a Solaris machine, using the Custom option:

Step 1 Go to the command prompt and select either:

- **2** and **Enter** to proceed with the installation after you select the Custom mode.

Or

- **Q** to quit the installation.

If you press **Enter** a list of the applications appears.

```
1) Common Services 3.3
2) LMS Portal 1.2
3) CiscoWorks Assistant 1.2
4) CiscoView 6.1.9
5) Integration Utility 1.9
6) Resource Manager Essentials 4.3
7) Campus Manager 5.2
8) Device Fault Manager HPOV-NetView adapters 3.2
9) Device Fault Manager 3.2
10) Internetwork Performance Monitor 4.2
11) All of the above
-----Add-on Applications------------------
12)Health and Utilization Monitor 1.2
-----------------------------------------
```

You can select and install one or more applications. By default the applications you installed in the earlier version of LMS appear as selected for upgrade.

Step 2 Enter the number corresponding to the option you have chosen or **Q** to quit.

Make sure you have sufficient disk space. For disk space requirements, see System and Browser Requirements for Server and Client.

You must select Common Services 3.3, LMS Portal 1.2 and CiscoWorks Assistant 1.2 applications before selecting any other applications.

Integration Utility 1.9 can be installed independently. It does not depend on Common Services 3.3 or LMS Portal 1.2 or any other application for installation.

You cannot install or reinstall both DFM 3.2 and DFM 3.2 HPOV- NetView Adapters at the same time. If you do, you will be prompted by an information message to reselect the applications.

You can select more than one application.

To do this enter the numbers of the options, separated by commas. To quit enter **Q**.

After you select the applications, the following message is displayed:

```
Press Y to reselect the components or Enter to continue
```

Step 3 Press **Y** to reselect the components or **Enter** to continue the installation.

The License prompt appears where you need to provide the suitable license information.

Note If you have installed LMS 3.0 or LMS 3.1 with a purchase license, you will not be prompted for license information. You can directly upgrade to LMS 3.2

Step 4 Specify the License file location.

You need to specify the License information only if you are installing either RME, DFM, IPM CM or HUM. You will not encounter this message while installing other applications.

If your CiscoWorks Server is in ACS mode, the following message appears:

```
INFO: Ciscoworks server is in ACS mode.
WARNING: The application that you are installing requires new tasks to be registered with
WARNING: ACS. If you have already registered this application with ACS from another
WARNING: server, you do not need to register it again.
WARNING: However if you re-register the application, you will lose any custom roles that
WARNING: you had created earlier for this application in ACS.
WARNING: Some features in ACS may not work correctly on Dual-stack servers.
```

Step 5 Enter:

- **y** to register the applications immediately and continue the installation.

Or

- **n** to register the applications later and continue the installation.

The Database Password prompt appears.

Step 6 Enter the Database password.

This password must begin with an alphabet and should be less than 15 characters. It will be used internally by the product. For more information on passwords, see Password Information.

Based on size of the backed-up data, the time required to build the CiscoWorks database is calculated and the following message appears:

```
Rebuilding databases in CiscoWorks may take approximately X minutes. Do you want to
upgrade the product now? (y/n) [y]:
```

In the above message, *X* is the time calculated to build the database.

Entering **n** terminates the installation.

Step 7 Enter **y** to continue with the installation.

You have to provide the license information for HUM as follows:

- If you have installed HUM 1.0 or HUM 1.1 with a purchase license, you can directly upgrade to HUM 1.2. You will not be prompted for license information. Skip Step 8.

- If you have installed HUM 1.0 or HUM 1.1 with an evaluation license, you can first apply the upgrade license to HUM 1.2 or unselect HUM from installation. Otherwise, the installation program exits. See Step 3 in Local Upgrade to LMS 3.2 on Solaris for details.
- If you are installing for the HUM 1.2 for the first time, a separate licensing screen appears as given in Step 8.

  The evaluation copy of HUM is packaged with LMS 3.2 and you need to purchase a separate license to use HUM.

Step 8 Enter any of the following to specify the license for HUM 1.2:

- **L** and provide the License file location.
- **E** to opt for an evaluation mode. In this mode, you can provide license information later to fully enable the product. This is the default option.
- **Q** to quit the installation.

If you specify the license file for HUM, the following message appears:

```
You have opted to install the licensed version of CiscoWorks HUM 1.2. Before you
install this application, ensure that you have installed a licensed version of LMS
3.2.
```

The above message implies that you can install the licensed version of HUM only over the licensed version of LMS.

If you choose the evaluation option, the following message appears:

```
You have opted to evaluate CiscoWorks HUM 1.2. This evaluation copy is valid only for
90 days. To continue using CiscoWorks HUM 1.2 after 90 days, you should have a valid
purchased license.
```

The installer displays the following message when you upgrade to HUM 1.2:

```
You are now upgrading to HUM 1.2. This version supports 64-bit counters for interface
utilization. After the upgrade, all pollers configured for interface utilization of
high speed interfaces will automatically be re-configured to poll 64-bit counters.
```

Step 9 Press **Enter** to continue the installation.

The installation program calculates the minimum disk space, RAM and SWAP space required to install the product and the space required to rebuild the database.

- If the disk space is sufficient, the following message appears:

  ```
  Sufficient disk space.
  ```

- If the drive does not have enough space, an error message appears and the installation exits.

Step 10 Enter the CiscoWorks Admin password and confirm it.

For more information on passwords, see Password Information.

Step 11 Enter the guest password and confirm it.

For more information on passwords, see Password Information.

Step 12 Enter the System Identity Account password and confirm it.

In a multi-server environment, you must configure all systems that are part of your multi-server setup with the same System Identity Account password.

For more information on passwords, see Password Information.

The SSL certificate message appears.

```
Do you want to preserve the existing Apache Certificate? (y/n): [y]
```

Step 13 Press **y** to proceed.

If you do not want to preserve the certificate, enter **n** to edit the certificate and proceed.

Step 14 Enter the SMTP server name. For more information, see User Inputs for Installation

Step 15 Enter the country code, state, city, company, organization, administrator's e-mail address, and Host name/FQDN for HTTPS.

Only the Host name/FQDN is mandatory. You can enter the host name or fully-qualified domain name of the server.

Other fields are optional. Press **Enter** to skip other fields.

Step 16 Enter either:

- **N** not to integrate with a third-party NMS after installation. This completes the installation faster. It also avoids errors that may be caused by third party integration.
- **Y** to integrate with a third-party NMS during installation.

  If you select **Y**:

a. Select any of the following:

  - The adapter from the list of available adapters.
  - **Other** to choose an adapter that is not listed (you are prompted to enter the path name of the adapter).
  - **None** to integrate after the installation is complete.

  If you select **None**, go to Step 16.

  Many third-party products allow you to launch CiscoWorks applications from within the third-party product. The CiscoWorks applications are launched in a web browser.

b. Enter the full pathname for the web browser.

  A message prompts you to enable download updates to NMIDB (Network Management Integration Data Bundle) directly from Cisco.com.

c. Select either:

  - **N** to disable future updates from Cisco.com.
  - **Y** to enable future updates from Cisco.com.

  If you select **N**, go to Step 16.

d. Enter your Cisco.com user ID and password.

  You must have Cisco.com login privileges. If you do not have a user account and password on Cisco.com, contact your channel partner or enter a request on the standard Cisco.com web site.

The installation program checks dependencies and system requirements and copies the files to the run time.

The Installation program provides a tool called Performance Tuning Tool (PTT), which fine-tunes RME to utilize the system resources better. If the CiscoWorks server has a dual CPU with 4 GB RAM, the following message appears:

```
Do you want to tune RME to better utilize the available System resources, and improve
performance?

Select Yes, to tune the performance parameters of RME towards the end of installation.
Select No, to continue running RME using the existing default parameters. If you select
No, you can tune the parameters later by running rmeptt CLI utility. See the "Performance
Tuning Tool" section of RME user Guide for Details.<y/n> [n]:
```

Step 17 Enter:

- **y** to tune RME for better utilization of System Resources

  Or

- **n** to continue with the installation.

If you select **y**, RME is fine tuned at the end of the installation.

A message appears:

```
Do you want to see the passwords that were entered/randomly generated? (y/n) [n]
```

The Device Fault Manager uses a data transport protocol that requires authentication for server-to-server communication. You can retain the existing username and password for securing this interface.

Step 18 Enter **y**.

A message appears:

```
Exiting installation beyond this point might result in system instability.
Do you want to continue the installation? (y/n) [y]
```

Installation now proceeds. At the end of installation, the following messages appear:

```
WARNING: To ensure that you retain the latest device support for RME,
WARNING: please install the latest Device Packages from Cisco.com @
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-rme
WARNING: Please refer to the Installing and Getting Started with CiscoWorks LAN Management
Solution 3.2 guide for details.
```

The above message appears only if you have installed RME.

```
WARNING: To ensure that you retain the latest device support for CM,
WARNING: please install the latest Device Packages from Cisco.com @
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-campus
WARNING: Please refer to the Installing and Getting Started with CiscoWorks LAN Management
Solution 3.2 guide for details.
```

The above message appears only if you have installed CM.

```
WARNING: To ensure that you have up-to-date device support,
WARNING: install the latest Service Pack (SP) from Cisco.com, at
WARNING: http://www.cisco.com/cgi-bin/tablebuild.pl/cw2000-dfm.
WARNING: For installation details, refer to the Installing and Getting Started with
CiscoWorks LAN Management Solution 3.2 guide.
```

The above message appears only if you have installed DFM.

The installation completes without displaying more questions and the system prompt appears.

It takes approximately an hour to complete the installation.

The following messages appear at the end of the installation:

```
Software Installation Tool Completed
Possible Warnings/Errors Encountered
```

The warning and error messages that appear after these messages do not hinder the installation. They only indicate that you need to take corrective actions after the installation has completed.

Your Solaris machine has the selected applications of LMS 3.2 installed successfully.

On Solaris 10 if you have selected to install DFM, a warning message may appear prompting you to reboot the machine at the end of installation. If the settings required by DFM are already available, the message may not appear.

Note If cluster patches are installed for Solaris 10, you must reboot your system after installing LMS.

To prepare the client system for use, see System and Browser Requirements for Server and Client.

For troubleshooting information, see Checking Processes After Installation and Understanding Installation Error Messages.

Remote Upgrade to LMS 3.2 on Solaris

To upgrade from the previous versions of LMS to LMS 3.2 on a different Solaris machine:

Step 1 Login to the machine where the previous version of LMS is installed.

Step 2 Take a backup of the LMS data.

Step 3 Login to the machine where LMS 3.2 is to be installed.

Step 4 Follow the install procedure using Typical or Custom to install LMS 3.2. See Installing LMS 3.2 on Solaris - New.

Step 5 Migrate the data to LMS 3.2.

To migrate and restore the LMS data, follow the procedure in the *Data Migration Guide for LAN Management Solution 3.2*.

The *Data Migration Guide for LAN Management Solution 3.2*is available at this location:

http://www.cisco.com/en/US/products/sw/cscowork/ps2425/prod_installation_guides_list.html

Notes for Remote Upgrade

The list of applications in the backed-up machine should exactly match the list of applications in the machine where it is restored. If not, the behavior of the applications after upgrade will be unpredictable.

For example:

- You have backed up data for:
  - CS 3.2
  - RME 4.2
  - CM 5.1
- You restore it in a machine that has:
  - CS 3.3
  - RME 4.3
  - CM 5. 2
  - DFM 3.2
  - HUM 1.2

For the above scenario, the behavior of the applications after upgrade will be unpredictable. For more details on backing up and restoring data, see the *Data Migration Guide for LAN Management Solution 3.2*.

While setting up HA and DR environment in LMS server, ensure to set them prior to LMS installation. For further information on HA/DR configuration, see Chapter 4, "Setting Up CiscoWorks LMS in High Availability and Disaster Recovery Environment".

Local Upgrade to LMS 3.2 on Windows

To upgrade to LMS 3.2 on the same Windows machine, you can select the relevant option from the following:

- Customers having LMS 2.5 or LMS 2.5.1, must first install LMS 2.6, available from Cisco.com and then proceed to upgrade LMS 3.2 from the DVD.

  The LMS 2.6 is available at the location:
  http://www.cisco.com/cgi-bin/tablebuild.pl/lms26.

  For install instructions, see the Readmes at:
  http://www.cisco.com/en/US/products/sw/cscowork/ps2425/prod_installation_guides_list.html.

- Customers upgrading from LMS 2.6, LMS 2.6 SP1, LMS 3.0, LMS 3.0 December 2007 update and LMS 3.1 can directly upgrade to LMS 3.2.

Note We recommend that you take a backup of your data before you start the upgrade.

To upgrade to LMS 3.2 on the same Windows machine:

Step 1 Login as administrator to the machine where the previous version of LMS is already installed.

a. Insert the LMS 3.2 Product DVD.

b. Double-click on the autorun.exe or setup.exe file.

   The CiscoWorks LAN Management Solution 3.2 Applications window appears.

c. Click **Install** to continue.

While installing from the network drive, the Installing from Network Drive window appears.

Installation from network drive will be slower than installing from the local drive.

Step 2 Click **Yes** to proceed or **No** to exit installation.

If the WMI service is running, the following message appears when installation starts:

```
Windows Management Instrumentation (WMI) is running. This locks processes and impedes
installation. To avoid WMI conflicts, this Setup program will stop and immediately restart
the WMI service.

Do you want to proceed?

Click Yes to proceed with this installation. Click No to exit installation.
```

Step 3 Click **Yes** to proceed.

The IIS detection message appears.

When Internet Information Services (IIS) is detected on your system and if you have continued the installation without IIS services, you cannot use the port number 443 for HTTPS. Instead, you must use the port numbers ranging from 1026 to 65535 for HTTPS to avoid this conflict.

Step 4 Click **Yes** or **No** to continue.

When you upgrade from a LMS 3.0 machine, that has the evaluation version of HUM installed, the following message appears:

```
You have opted to upgrade the LMS version from 3.0 to 3.2. If you have an evaluation
version of HUM, ensure that you uninstall the evaluation version before upgrading. If you
have a valid license for HUM, ensure that you apply the license before upgrading.
```

Do the following:

a. Uninstall the evaluation version of HUM. For details, see Uninstalling LMS 3.2 on Windows

b. Repeat Step 1.

or

Apply the license for HUM and proceed with the installation.

Installation checks for the Regional Settings. They have to be set either as US English or Japanese.

If the Primary settings point to an unsupported locale, the installation aborts with an error message:

You can install LMS after correcting the locale and the Active regional settings in **Control Panel > Regional and Language Options > Regional Options**.

The Welcome window appears.

Step 5 Click **Next** to continue.

The Software License Agreement window appears. You must accept this agreement to install CiscoWorks LMS 3.2.

Step 6 Click **Accept** to continue.

If you are trying to install on an unsupported platform or when the Terminal Services is running on the system, an error message appears.

The installation terminates after you click **OK**.

You cannot install LMS 3.2 on Windows 2000 server platform. You need to upgrade to Windows 2003 or 2008 operating system and then continue with installation. If not, installation will terminate.

When you have the recommended platform, the installation continues.

If you are trying to install CiscoWorks Common Services on a Primary Domain Controller or Backup Domain Controller, installation terminates after displaying the following error message:

```
You are attempting to install CiscoWorks Common Services 3.3 on a server that is
configured as a Primary Domain Controller or a Backup Domain Controller (PDC/BDC).
```

Install CiscoWorks Common Services 3.3 on another server not configured as PDC / BDC.

The Setup Type dialog box appears.

Step 7 Select one of the following:

You can upgrade install LMS 3.2 using either the Typical or Custom mode:

- **Typical** to select the components and install the selected components in the default location (*System Drive*\Program Files\CSCOpx). This is the default installation mode. (See the Local Upgrade to LMS 3.2 on Windows — Typical section.)
- **Custom** to select the components, customize the settings, and to specify the location. (See the Local Upgrade to LMS 3.2 on Windows — Custom section.)

Local Upgrade to LMS 3.2 on Windows — Typical

To upgrade to LMS 3.2 on the same Windows machine, using the Typical option:

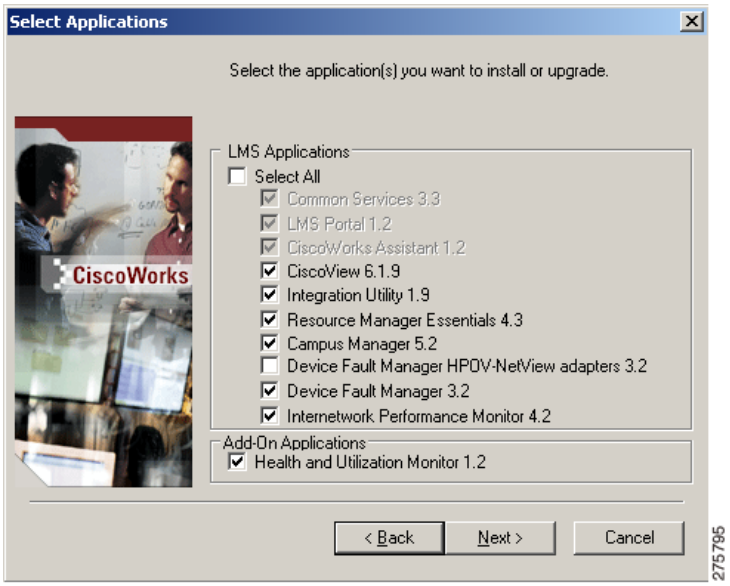
Step 1 Click **Next** to continue after you select the Typical installation mode.

The Backup Data dialog box appears.

Step 2 Select a suitable location for backup and click **Next**.

The Select Applications dialog box appears as given in Figure 6-6.

Figure 6-6 Select Applications Dialog Box in Upgrade Scenario



The existing applications in the earlier versions of LMS will get selected and upgraded to its latest version by default when you install LMS 3.2.

You can also now select to install or reinstall any other application of LMS 3.2.

You cannot install or reinstall both DFM 3.2 and DFM 3.2 HPOV- NetView Adapters at the same time. If you do, you will be prompted by an information message to select only one of them.

Step 3 Click **Next** to continue.

If your CiscoWorks Server is in ACS mode, the following message appears:

```
Ciscoworks server is in ACS mode.
The application that you are installing requires new tasks to be registered with ACS. If
you have already registered this application with ACS from another server, you do not need
to register it again.
However if you re-register the application, you will lose any custom roles that you had
created earlier for this application in ACS.
Some features in ACS may not work correctly on Dual-stack servers.
```

Step 4 Click:

- **Yes** to register the applications immediately and continue the installation.

Or

- **No** to register the applications later and continue the installation.

The Licensing Information dialog box appears for LMS 3.2.

Note If you have installed LMS 3.0 or LMS 3.1 with a purchase license, then this licensing screen does not appear. You can directly upgrade to LMS 3.2

Step 5 Specify the License File Location.

You need to specify the License information only if you are installing either RME, DFM, IPM CM or HUM. You will not encounter this message while installing other applications.

For HUM:

- If you have installed HUM 1.0 or HUM 1.1 with a purchase license, you can directly upgrade to HUM 1.2. You will not be prompted for license information. Skip Step 6.
- If you have installed HUM 1.0 or HUM 1.1 with an evaluation license, you can first apply the upgrade license to HUM 1.2 or unselect HUM from installation. Otherwise, the installation program exits. See Step 3 in Local Upgrade to LMS 3.2 on Solaris for details.
- If you are installing for the HUM 1.2 for the first time, a separate licensing screen appears as given in Step 6.

  The evaluation copy of HUM is packaged with LMS 3.2 and you need to purchase a separate license to use HUM.

Step 6 Specify the License File Location or select the Evaluation option.

- If you specify the license file for HUM, the following message appears:

  ```
  You have opted to install the licensed version of CiscoWorks HUM 1.2. Before you
  install this application, ensure that you have installed a licensed version of LMS
  3.2.
  ```

  The above message implies that you can install the licensed version of HUM only over the licensed version of LMS.

- If you choose the Evaluation option, the following message appears:

  ```
  You have opted to evaluate CiscoWorks HUM 1.2. This evaluation copy is valid only for
  90 days. To continue using CiscoWorks HUM 1.2 after 90 days, you should have a valid
  purchased license.
  ```

Step 7 Click **OK**.

Based on size of the backed-up data, the time required to build the CiscoWorks database is calculated and the following message appears:

```
Rebuilding databases in CiscoWorks may take approximately X minutes. Do you want to
upgrade the product now?
Click Yes to upgrade the product now or No to upgrade later.
```

In the message, *X* is the time taken to rebuild the database.

Clicking **No** terminates the installation.

Step 8 Click **Yes** to continue with the installation.

The System Requirements dialog box appears.

The installation program calculates the minimum disk space, RAM and SWAP space required to install the product and the space required to rebuild the database.

The Web Server dialog box appears.

Step 9 Enter HTTPS port, server administrator e-mail address, and the SMTP server name.

The default HTTPS port number is 443. The SMTP server name is used by other CiscoWorks applications. The HTTPS port and SMTP server name are mandatory.

Note When IIS is detected on your system, to avoid any conflict with HTTPS, use port numbers ranging from 1026 to 65535.

Step 10 Click **Next**.

The Installation program provides a tool called Performance Tuning Tool (PTT), which fine-tunes RME to utilize the system resources better. If the CiscoWorks server has a dual CPU with 4 GB RAM, the following message appears:

```
Do you want to tune RME to better utilize the available System resources, and improve
performance?

Select Yes, to tune the performance parameters of RME towards the end of installation.
Select No, to continue running RME using the existing default parameters. If you select
No, you can tune the parameters later by running rmeptt CLI utility. See the "Performance
Tuning Tool" section of RME user Guide for Details.
```

Step 11 Click:

- **Yes** to tune RME for better utilization of System Resources

  Or

- **No** to continue with the installation.

If you select **Yes**, RME is fine tuned at the end of the installation.

The Summary window appears with the updates that will be installed and the settings for the installation. You can click **Back** to go back and edit the settings if required.

Step 12 Click **Next**.

The Stop All Programs dialog box appears with the list of files currently being used by other processes.

Step 13 Click **Retry** to verify.

Installation continues.

At the end of installation, based on the applications you have selected to install or reinstall, warning messages appear. These messages prompt you to install the latest device latest updates as indicated in Figure 6-4.

Step 14 Click **OK** and proceed to complete the installation.

Information about the various LMS applications, their features and benefits are displayed during installation.

The Restart dialog box appears after the installation is complete.

You must restart your machine after you have installed LMS 3.2.

Step 15 Select **Yes, I want to restart my computer now.**

Step 16 Click **Finish**.

To prepare the client system for use, see System and Browser Requirements for Server and Client.

For troubleshooting information, see Checking Processes After Installation and Understanding Installation Error Messages.

Local Upgrade to LMS 3.2 on Windows — Custom

To upgrade to LMS 3.2 on the same Windows machine, using the Custom option:

Step 1 Click **Next** to continue after you select the Custom installation mode.

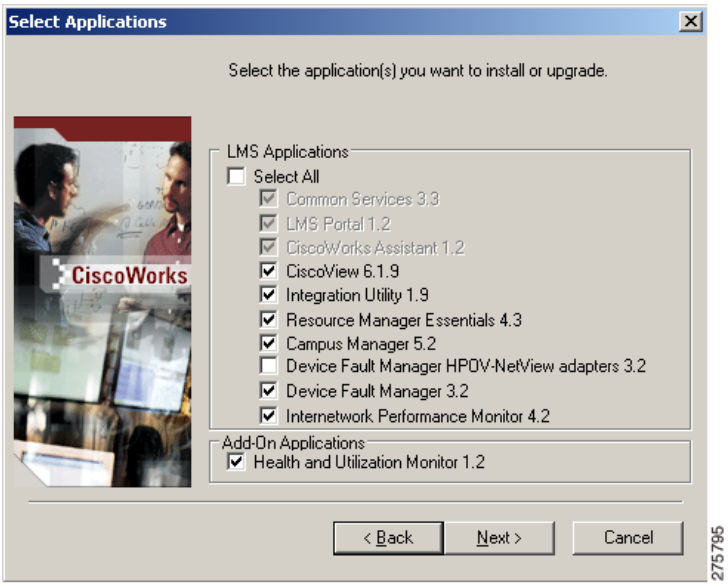
The Backup Data dialog box appears.

Step 2 Select a suitable location for backup.

Step 3 Click **Next**.

The Select Applications dialog box appears as given in Figure 6-7:

Figure 6-7 Select Applications Dialog Box in Upgrade Scenario



The existing applications in the earlier versions of LMS will get selected and upgraded to its latest version by default when you install LMS 3.2.

You can also now select to install or reinstall any other application of LMS 3.2.

You cannot install or reinstall both DFM 3.2 and DFM 3.2 HPOV- NetView Adapters at the same time. If you do, you will be prompted by an information message to select only one of them.

Step 4 Click **Next** to continue.

If your CiscoWorks Server is in ACS mode, the following message appears:

```
Ciscoworks server is in ACS mode.
The application that you are installing requires new tasks to be registered with ACS. If
you have already registered this application with ACS from another server, you do not need
to register it again.
However if you re-register the application, you will lose any custom roles that you had
created earlier for this application in ACS.
Some features in ACS may not work correctly on Dual-stack servers.
```

Step 5 Click:

- **Yes** to register the applications immediately and continue the installation.

Or

- **No** to register the applications later and continue the installation.

The Licensing Information dialog box appears for LMS 3.2.

Note If you have installed LMS 3.0 with a purchase license, then this licensing screen does not appear. You can directly upgrade to LMS 3.2

Step 6 Specify the License File Location.

You need to specify the License information only if you are installing either RME, DFM, IPM CM or HUM. You will not encounter this message while installing other applications.

For HUM:

- If you have installed HUM 1.0 or HUM 1.1 with a purchase license, you can directly upgrade to HUM 1.2. You will not be prompted for license information. Skip Step 7.
- If you have installed HUM 1.0 or HUM 1.1 with an evaluation license, you can first apply the upgrade license to HUM 1.2 or unselect HUM from installation. Otherwise, the installation program exits. See Step 3 in Local Upgrade to LMS 3.2 on Solaris for details.
- If you are installing for the HUM 1.2 for the first time, a separate licensing screen appears as given in Step 7.

  The evaluation copy of HUM is packaged with LMS 3.2 and you need to purchase a separate license to use HUM.

Step 7 Specify the License File Location or select the Evaluation option.

- If you specify the license file for HUM, the following message appears:

  ```
  You have opted to install the licensed version of CiscoWorks HUM 1.2. Before you
  install this application, ensure that you have installed a licensed version of LMS
  3.2.
  ```

  The above message implies that you can install the licensed version of HUM only over the licensed version of LMS.
- If you choose the Evaluation option, the following message appears:

  ```
  You have opted to evaluate CiscoWorks HUM 1.2. This evaluation copy is valid only for
  90 days. To continue using CiscoWorks HUM 1.2 after 90 days, you should have a valid
  purchased license.
  ```

Step 8 Click **OK**.

Based on size of the backed-up data, the time required to build the CiscoWorks database is calculated and the following message appears:

```
Rebuilding databases in CiscoWorks may take approximately X minutes. Do you want to
upgrade the product now?
Click Yes to upgrade the product now or No to upgrade later.
```

In the message, *X* is the time taken to rebuild the database.

Clicking **No** terminates the installation.

Step 9 Click **Yes** to continue with the installation.

The System Requirements dialog box appears.

The installation program calculates the minimum disk space, RAM and SWAP space required to install the product and the space required to rebuild the database.

Step 10 Click **Next**.

The Change Admin and Guest Password box appears.

Step 11 Enter user admin and user guest passwords and confirm them.

For more information on passwords, see Password Information.

Step 12 Click **Next** to continue installation.

The Change System Identity Account password dialog box appears.

Step 13 Enter the System Identity Account password and confirm it.

In a multi-server environment, you must configure all systems part of your multi-server setup with the same System Identity Account password.

For more information on passwords, see Password Information.

Step 14 Click **Next**.

The Change casuser Password dialog box appears.

Casuser is the user who administers and maintains CiscoWorks Server, without administrative privileges.

If you do not enter a password, the installation program generates a random password and adds the new user casuser and the new group casusers to the system.

Step 15 Click **Next** to continue.

The Database Password dialog box appears.

For more information on passwords, see Password Information.

Step 16 Click **Next** to continue installation.

The Web Server dialog box appears.

Step 17 Enter HTTPS port, server administrator e-mail address, and the SMTP server name.

The default HTTPS port number is 443. The SMTP server name is used by other CiscoWorks applications. The HTTPS port and SMTP server name are mandatory.

Note When IIS is detected on your system, to avoid any conflict with HTTPS, use port numbers ranging from 1026 to 65535.

Step 18 Click **Next** to continue installation.

The Self-Signed Certificate dialog box appears. The webserver uses the Self-Signed certificate while operating in secure mode.

Step 19 Enter the country code, state, city, company, organization, and Host name/FQDN for HTTPS.

Only the Host name/FQDN is mandatory. You can enter the host name or fully-qualified domain name of the server.

Step 20 Click **Next** to continue installation.

If you want to create a shortcut to CiscoWorks on your desktop, select the check box.

Step 21 Click **Next**.

The Installation program provides a tool called Performance Tuning Tool (PTT), which fine-tunes RME to utilize the system resources better. If the CiscoWorks server has a dual CPU with 4 GB RAM, the following message appears:

```
Do you want to tune RME to better utilize the available System resources, and improve
performance?

Select Yes, to tune the performance parameters of RME towards the end of installation.
Select No, to continue running RME using the existing default parameters. If you select
No, you can tune the parameters later by running rmeptt CLI utility. See the "Performance
Tuning Tool" section of RME user Guide for Details.
```

Step 22 Click:

- **Yes** to tune RME for better utilization of System Resources

  Or

- **No** to continue with the installation.

If you select **Yes**, RME is fine tuned at the end of the installation.

The Summary window appears with the updates that will be installed and the settings for the installation. You can click **Back** to go back and edit the settings if required.

Step 23 Click **Next**.

The Stop All Programs dialog box appears with the list of files currently being used by other processes running.

Step 24 Click **Retry** to verify and proceed.

Installation continues.

At the end of installation, based on the applications you have selected to install or reinstall, warning messages appear. These messages prompt you to install the latest device latest updates as indicated in Figure 6-4.

Step 25 Click **OK** and proceed to complete the installation.

Information about the various LMS applications, their features and benefits are displayed during installation.

The Restart dialog box appears after the installation is complete.

You must restart your machine after you have installed LMS 3.2.

Step 26 Select **Yes, I want to restart my computer now.**

Step 27 Click **Finish**.

To prepare the client system for use, see System and Browser Requirements for Server and Client.

For troubleshooting information, see Checking Processes After Installation and Understanding Installation Error Messages.

Remote Upgrade to LMS 3.2 on Windows

To remote upgrade from the previous version of LMS to LMS 3.2 on a different Windows machine:

Step 1 Log into the machine where the previous version of LMS is installed.

Step 2 Take a backup of the LMS data.

Step 3 Log into the machine where LMS 3.2 is to be installed.

Step 4 Follow the install procedure using Typical or Custom to install LMS 3.2. See Installing LMS 3.2 on Windows - New.

Step 5 Migrate the data to LMS 3.2.

To migrate and restore the LMS data follow the procedure in the *Data Migration Guide for LAN Management Solution 3.2*.

The *Data Migration Guide for LAN Management Solution 3.2* is available at this location:

http://www.cisco.com/en/US/products/sw/cscowork/ps2425/prod_installation_guides_list.html

Notes for Remote Upgrade

The list of applications in the backed-up machine should exactly match the list of applications in the machine where it is restored. If that is not the case, behavior of the applications after upgrade will be unpredictable.

For example:

- You have backed up data for:
  - CS 3.2
  - RME 4.2
  - CM 5.1
- You restore it in a machine that has:
  - CS 3.3
  - RME 4.3
  - CM 5.2
  - DFM 3.2
  - HUM 1.2

For the above scenario, behavior of the applications after upgrade will be unpredictable. For more details on backing up and restoring the data, see the *Data Migration Guide for LAN Management Solution 3.2*.

While setting up HA and DR environment in LMS server, ensure to set them prior to LMS installation. For further information on HA/DR configuration, see Chapter 4, “Setting Up CiscoWorks LMS in High Availability and Disaster Recovery Environment”.

Verifying the Installation

You can verify LMS 3.2 installation by following either of these procedures.

Procedure 1

You can verify LMS 3.2 installation using either of these methods:

- Enter the command **`pdshow`** from *NMSROOT*/bin.

  Where, *NMSROOT* is the CiscoWorks installation directory (by default, SystemDrive:\Program Files\CSCOpx and *SystemDrive* is the Windows operating system installed directory and for Solaris it is /opt/CSCOpx).

- Select **Common Services > Server > Admin > Processes** on the CiscoWorks Home page, to see the various processes and their status.

  The services that should be displayed after installation are listed below. For details on the various process statuses, refer to the *User Guide for Common Services 3.3*.:

Application Name	Services/Processes	
Common Services 3.3	• Apache • CmfDbEngine • CmfDbMonitor • CMFOGSServer • CSDiscovery • CSRegistryServer • DCRServer • DCRDevicePoll • diskWatcher • EDS • CSSCPServer	• EDS-GCF • ESS • EssMonitor • FDRewinder (Only on Solaris) • jrm • LicenseServer • NameServer • NameServiceMonitor • Tomcat • TomcatMonitor
Campus Manager 5.2	• ANIServer • ANIDbEngine • CampusOGSServer • UTManager • VNMServer	• UTLITE • UTMajorAcquisition • MACUHIC • WlseUHIC
Resource Manager Essentials 4.3	• ChangeAudit • ConfigMgmtServer • CTMJrmServer • EssentialsDM • ICServer	• RMEDbEngine • RMEOGSServer • SyslogAnalyzer • SyslogCollector • PMCOGSServer

Application Name	Services/Processes	
Device Fault Manager 3.2	• AdapterServer • AdapterServer1 • DataPurge • DfmServer • DfmServer1 • DFMLogServer • DFMCTMStartup • DfmBroker • DFMMultiProcLogger • DFMOGSServer • EPMServer • EPMDbEngine	• FHPurgeTask • FHDbEngine • FHServer • Interactor • Interactor1 • InventoryCollector • InventoryCollector1 • INVDbEngine • NOSServer • PTMServer • TISServer
Internetwork Performance Monitor 4.2	• IPMProcess • IpmDbEngine	• IPMOGSServer
CiscoWorks Assistant 1.2	• OpsxmlDbEngine • OpsXMLRuntime	• ProcSysBus • CWAPublisher
Health and Utilization Monitor 1.2	• UPMDbEngine • UPMProcess	• UPMDbMonitor

Procedure 2

To verify from the CiscoWorks Home Page main screen:

Step 1 Select **Common Services > Server > Home Page Admin > Application Registration**.

The Application Registration Status page appears.

Step 2 Check the Registered Applications table.

If LMS 3.2 is upgraded successfully, the following application versions will be listed:

- CiscoView 6.1
- RME 4.3
- Campus Manager 5.2
- Device Fault Manager 3.2
- Internetwork Performance Monitor 4.2
- Health and Utilization Monitor 1.2

Application Registration Status page displays only the major version of the product. See the Software Updates page on Common Services to know the version with patch levels for all applications.

Procedure 3

You can also verify the installation using Software Center. To verify the installation, go to **Common Services > Software Center > Software Update** and the Software Updates page appears. You can verify the installation using the Products installed dialog box.

For information on installing User Tracking Utility on a Windows client, see User Tracking Utility.

For information on installing the Remote Syslog Collector, see Installing the Remote Syslog Collector.

Uninstalling LMS 3.2

This section contains:

- Before You Begin Uninstallation
- Uninstalling LMS 3.2 on Solaris
- Uninstalling LMS 3.2 on Windows

Before You Begin Uninstallation

The following are some precautionary notes on uninstallation that you must read:

- CiscoWorks Common Services 3.3, CiscoWorks LMS Portal 1.2 and CiscoWorks Assistant 1.2 must be uninstalled together. If not, you will encounter some error messages.
- As CiscoWorks Common Services 3.3 is required for other applications, it must be uninstalled only at the end. You can also use **Select All** to uninstall all the applications at the same time.
- The uninstall log file will be generated using time stamp with the YYYYMMDD_hhmmss format, for example, C:/CiscoWorks_uninstall_YYYYMMDD_hhmmss.
- The install folder will be removed and the casuser will be removed after uninstallation of Common Services 3.3.

Use the Uninstall option to remove CiscoWorks Common Services files and settings. You must be logged in as administrator to uninstall any application.

You need to uninstall all applications that depend on CiscoWorks before uninstalling CiscoWorks Common Services 3.3

For example, if you select Common Services without selecting CiscoView, the following message appears on both Windows and Solaris:

```
Cannot uninstall CiscoWorks Common Services.
It is required for CiscoView.
```

Uninstalling LMS 3.2 on Solaris

To uninstall LMS 3.2 on a Solaris system:

Step 1 Enter the following commands as root to start the uninstall script:

```
# cd /
```

*/opt/CSCOpx/***bin/uninstall.sh**

where */opt/CSCOpx* is the default installation directory.

If you have installed applications dependent on Common Services, a list of applications appear.

Enter the number corresponding to the option you have chosen or **q** to quit. You can select more than one component. Enter the number corresponding to the components separated by commas.

When you remove CiscoWorks Common Services (all the CiscoWorks applications), the uninstall script removes changes made to the */etc/services file*. The /etc directory still contains all system file changes.

The uninstall messages get appended to the /var/tmp/Ciscoworks_uninstall_20060623_102035.log.

If IPM is installed on the server, the following message appears:

```
IPM is currently installed in the server. Uninstall IPM after deleting the configured
collectors, to remove the corresponding collector entries from the source routers.
```

You should do either one of the following:

- Enter **c** to quit the uninstall and manually delete the collectors using IPM CLI.
- Enter **y** to delete the collectors in the device and continue with the uninstall.
- Enter **n** to continue with uninstall without deleting the collectors in device

The Uninstallation dialog box appears with the installed components.

The Uninstallation dialog box appears with the installed components.

Step 2 Enter **Y** to confirm uninstallation of the selected components.

The uninstallation proceeds.

After the uninstall is complete, the following messages appear:

```
All files were deleted successfully.
Possible Warnings/Errors Encountered
```

The uninstallation program lists the warning and error messages.

Step 3 Check the following files after uninstallation and ensure to perform the following:

- /etc/syslog.conf

  Ensure that the following entry is removed:
  `local0.emerg;local0.alert;local0.crit;local0.err;local0.warning;local0.notice;local0.info;local0.debug /var/adm/CSCOpx/log/dmgtd .log.`

- /etc/services

  Ensure that port assignments for the CiscoWorks applications have been removed.

- /etc/inetd.conf

  Ensure that the CiscoWorks TFTP entry is removed.

Uninstalling LMS 3.2 on Windows

To uninstall LMS 3.2 on a Windows system:

Step 1 Go to the Windows desktop and select **Start > Programs > CiscoWorks > Uninstall CiscoWorks**.

If the WMI service is running, the following message appears when uninstallation starts.

```
Windows Management Instrumentation (WMI) is running. This locks processes and impedes
installation. To avoid WMI conflicts, this Setup program will stop and immediately restart
the WMI service.

Do you want to proceed?

Click Yes to proceed with this installation. Click No to exit installation.
```

Step 2 Click either:

- **Yes** to proceed with this uninstallation.
- **No** to exit uninstallation.

If IPM is installed on the server, the following message appears:

```
IPM is currently installed in the server. Uninstall IPM after deleting the configured
collectors, to remove the corresponding collector entries from the source routers.
```

You should do either one of the following:

- Click **Cancel** to quit the uninstall and manually delete the collectors using IPM CLI.
- Click **Yes** to delete the collectors in the device and continue with the uninstall.
- Click **No** to continue with uninstall without deleting the collectors in device

The Uninstallation dialog box appears with the installed components.

Step 3 Select the components you want to remove and click **Next**.

Or

Click **Select All** to uninstall all the components and click **Next**.

The Uninstallation dialog box lists the selected components.

Step 4 Click either:

- **Next** to continue uninstallation.

Or

- **Back** to return to the component selection box.

If you have selected **Uninstall All**, you cannot return to the component selection box using **Back**.

The uninstallation proceeds and the Uninstallation Complete dialog box appears after uninstallation completes.

Step 5 Select **Yes, I want to restart my computer now** and click **Finish**.

Caution You must restart your system after the uninstallation is complete. The subsequent installation of other CiscoWorks products may fail if you do not restart your system.

Re-installing LMS 3.2

Re-installation is installing the product over the existing one without performing an uninstallation.

You can re-install LMS 3.2 by running the installation program on the system currently running the product. LMS 3.2 supports new installation and re-installation of applications at the same time.

Re-installation preserves the settings from the previous installation.

LMS applications selected to be re-installed will automatically be installed in the same location, where the previous version was installed.

To reinstall any of the LMS 3.2 applications, follow the similar procedure as detailed in Performing New Installation of LMS 3.2.

Notes for Re-installation

- During re-installation, you can choose to enter new passwords or retain the existing ones. For more information on passwords, see Password Information.
- You will be prompted to provide a backup location.
- In Windows, if the WMI service is up and running, the following message appears when installation starts:

  ```
  Windows Management Instrumentation (WMI) is running. This locks processes and impedes installation. To avoid WMI conflicts, this Setup program will stop and immediately restart the WMI service.

  Do you want to proceed?

  Click Yes to proceed with this installation. Click No to exit installation.
  ```

  Click **Yes** and proceed with the installation.