



Installing Cisco License Manager

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Installation Considerations

The Cisco License Manager graphical user interface (GUI) installation options include:

- Client and server packages installed on one machine (recommended).
Installing both the server and client packages on the same host is the recommended (and easiest) method. Use this choice if only one GUI client will be running most of time.
- Server and client packages installed on separate machines.
 - Client standalone package
 - Server standalone packageUse this choice if multiple GUI clients will be running simultaneously, install the server and GUI on separate hosts for better performance.

You can choose to install one or both of the packages on your computer. We also support installation of the server on one host and the client on another.



Caution

Firewalls are not allowed between a Cisco License Manager server and the GUI client. If a firewall is present it blocks the JRMP protocol and the non-privileged ports higher than 1024 and results in the client and server being unable to communicate.

For detailed steps on how to install, see [Installing Cisco License Manager, page 2-4](#). For system requirements for your installation package options, see [System Requirements, page 2-2](#). If you want to install using a command line script, see [Running the Command Line Installation Script, page 2-12](#).

For a description of the two installation packages, see [Package Options, page 2-2](#).

Package Options

There are two packages in Cisco License Manager. They are:

- Server package—Contains Java JAR files needed to start Cisco License Manager services and run the utilities (backup, restore, import, export, setup, and server)
- Client package—Contains Java JAR files needed to run Cisco License Manager client

To continue with your installation steps, see [Installing Cisco License Manager, page 2-4](#).

System Requirements

The system requirements for Cisco License Manager include:

- [Server Application Requirements, page 2-2](#)
- [Client Only Requirements, page 2-3](#)
- [Network and Port Requirements, page 2-3](#)
- [Cisco IOS Dependencies, page 2-3](#)
- [Java Information, page 2-4](#)

Server Application Requirements

If you install only the server package on your PC, see [Table 2-1 on page 2-2](#) for details on the minimum and tested software and hardware requirements.

Table 2-1 Server Software and Hardware Requirements

| Requirement Type | Minimum Requirement |
|------------------|--|
| Processor | Intel Pentium 4, 3.2 GHz |
| Software | Microsoft Windows XP Professional, Service Pack 2 (SP2) Adobe Reader 6.0 ¹ |
| RAM | 1 GB |
| Disk | 10 GB ² |

1. Online documentation requires Adobe Reader.
2. The actual amount of hard drive space required depends upon the number of clients you are installing and the number of devices you are managing with the client applications.

Ensure that the client can reach the server over the network or you will receive connection errors.

Client Only Requirements

If you install only the client package, see [Table 2-2 on page 2-3](#) for details on the minimum and tested software and hardware requirements.

Table 2-2 *Client Software and Hardware Requirements*

| Requirement Type | Minimum Requirement |
|----------------------|--|
| Processor | Intel Pentium 3 1.0 GHz |
| Software | Microsoft Windows XP Professional, Server Pack 2 (SP2) |
| RAM | 500 MB |
| Disk | 10 GB |
| Network Connectivity | Server must be reachable from the client software |

Network and Port Requirements

Your network must meet the following requirements before you begin deploying Cisco License Manager:

- Your device must be running a specific version of the Cisco IOS software. See the release notes for the model name, number, and release information.
- Your device must be configured to accept Cisco License Manager requests. For device notification to work successfully, the Cisco License Manager hostname must exist in the Domain Name System (DNS) or the device must have the Cisco License Manager hostname and IP address configured to receive messages.
- The computer running Cisco License Manager must be able to use HTTP or HTTPS.
- Gateway devices between Cisco License Manager and other network devices must permit communication over ports needed to support the specific request.
 - Cisco License Manager uses default ports for events between Cisco devices and the Cisco License Manager server (port 80) and between the Cisco License Manager client and server (port 1099). You can change to a different port during the installation setup. For instructions, see [Installing Cisco License Manager, page 2-4](#).
- If installed with a server on one machine and the clients on another, the clients must be able to communicate with the server

Cisco IOS Dependencies

To use Cisco License Manager, your Cisco device must be running a specific Cisco IOS software image. See the release notes for the Cisco device and Cisco IOS software version information.

Java Information

Cisco License Manager contains the following jar and jre files:

- Server package—clm-server.jar and clm-sdk.jar
- Client package—clm-ui.jar and clm-sdk.jar

Both the client and server packages have JRE 1.5 libraries.

Required Installation Preparations



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Perform these tasks before you proceed with the installation. This will save time, since you may need to reinstall or run the setup program if these tasks are not completed.

Before you begin the installation, use this list of required tasks to help you prepare:

- Be sure that the person performing the installation has administrative privileges on the host or client machine.
- Set up a device certificate file—If you are using Secure Socket Layer (SSL)-enabled devices, you will need a certificate file. For more details, see your device documentation.
- Request a Cisco.com account—Register online at <http://www.cisco.com>.
- Confirm your SMTP e-mail server account.
- For device notification to work successfully, the Cisco License Manager hostname must exist in DNS or the device must have the Cisco License Manager hostname and IP address configured to receive messages.
- Be sure there is a valid connection from Cisco License Manager server to Cisco.com.

Installing Cisco License Manager

You can install Cisco License Manager using either a GUI that walks you through the installation or a script that does not require user interaction.

To install Cisco License Manager use one of the following methods:

- [Quick Installation, page 2-4](#)
- [Step-by-Step Installation, page 2-5](#)

Quick Installation

To install Cisco License Manager on your PC:

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- Step 1** Go to this web address: <http://www.cisco.com/go/clm> or to the Software Download area on Cisco.com. You must be a registered Cisco.com user, but you need no other access privileges.
- Step 2** Download the Cisco License Manager zip file that contains the Cisco License Manager software package to your PC.

- Step 3** Unzip the file to your local disk.
- Step 4** Download the Cisco License Manager installer, and run it. (You can run it directly from the web if your browser offers this choice.)
- Cisco License Manager is free—there is no charge to download, install, or use it.
- Step 5** When you run the installer, follow the displayed instructions. In the final panel, click **Finish** to complete the installation.

Step-by-Step Installation

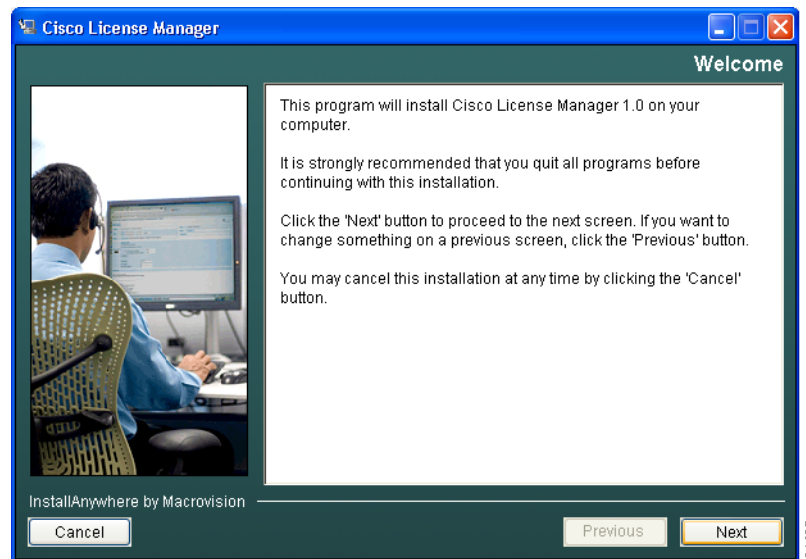
For more details on the client and server package options, see [Package Options, page 2-2](#).



Note

Before you begin the installation, complete the tasks in [Required Installation Preparations, page 2-4](#).

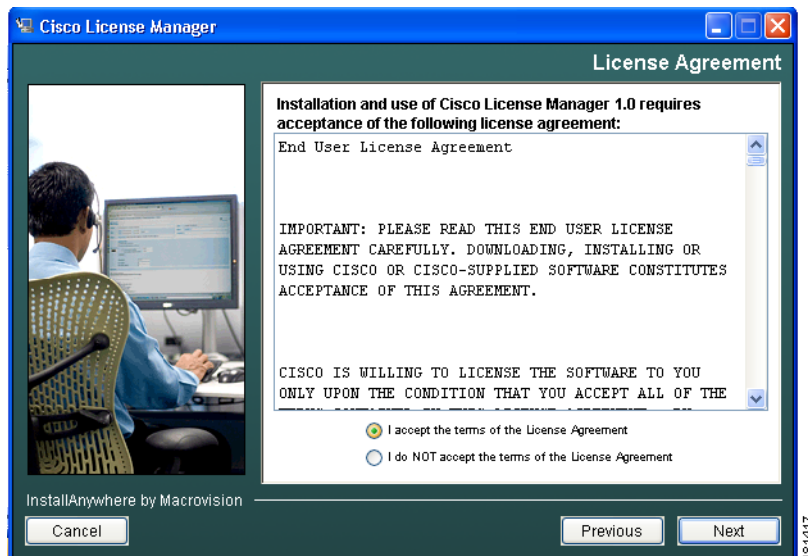
- Step 1** Download the ZIP file that contains the Cisco License Manager software package to your PC.
- Step 2** Unzip the file to your local disk.
- Step 3** Double-click the Cisco License Manager installer, **clm_installer.bat**, on your local disk to start the installation program.
- Step 4** A welcome message appears; click **Next**.



Note

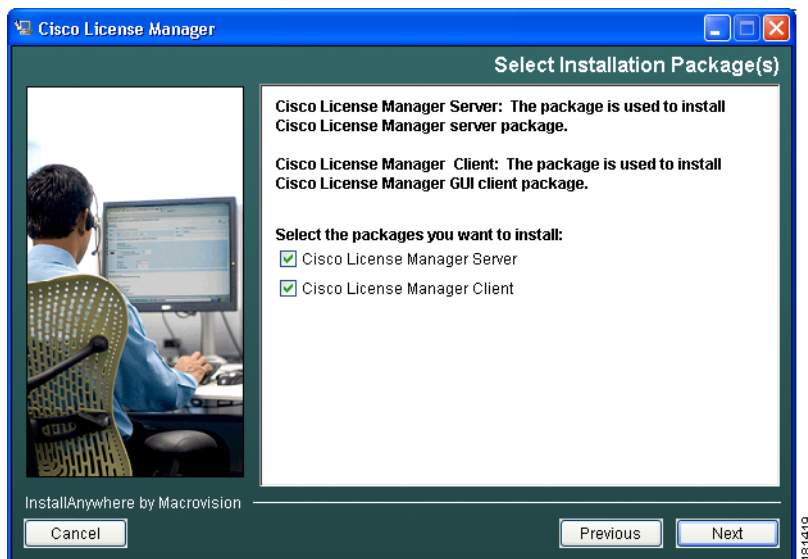
Throughout the installation, if you want to change something on a previous screen, click **Previous**. Click **Cancel** to stop the installation.

- Step 5** Review the license agreement and indicate your agreement by selecting the appropriate radio button and click **Next** to accept the terms of the license agreement.

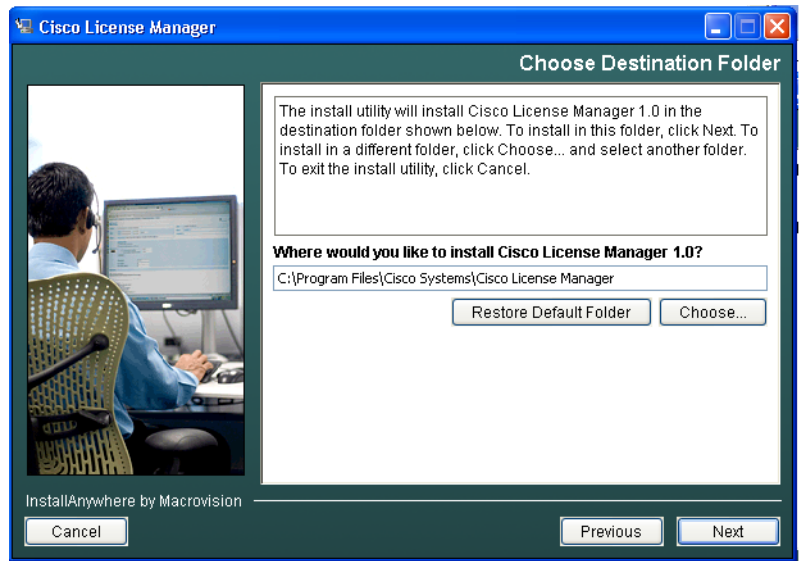


- Step 6** Select the option you want to install:

- a. To install the Server and Client packages, click **Next**. The check boxes should already be selected.
- b. To install only the Server package, deselect the Client package and then click **Next**. The Server Package check box should be the only one selected.
- c. To install only the Client package, deselect the check box for the Server package installation and then click **Next**. The Client Package check box should be the only one selected.

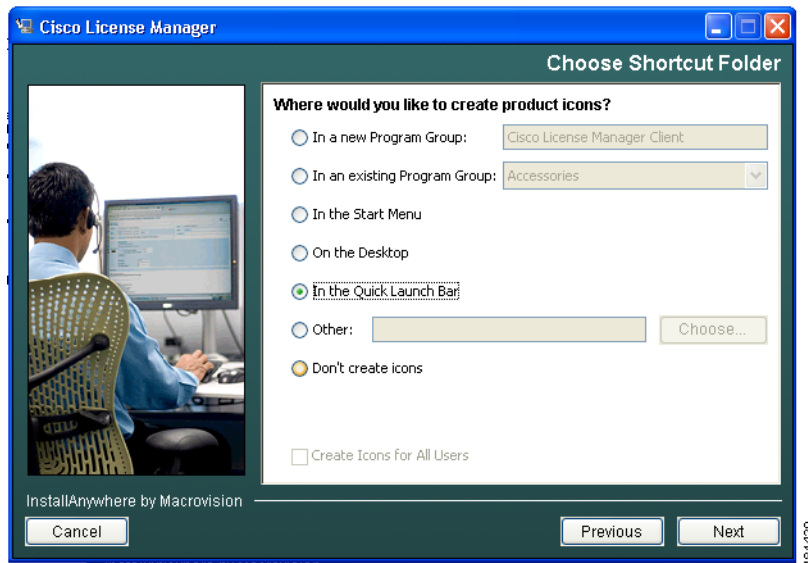


- Step 7** To select the default installation directory, click **Next**. To select a different location, click **Choose** and navigate to the desired location, then click **Next**.



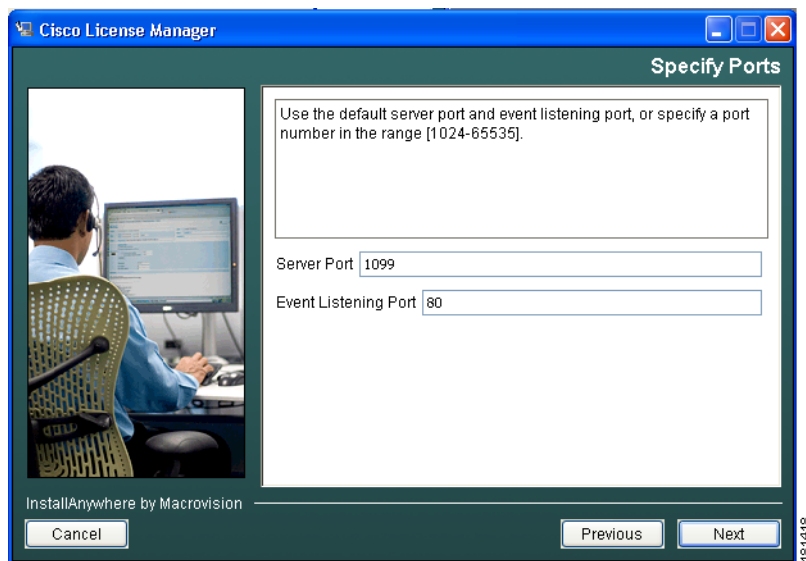
- Step 8** Select a location for the product icons:

- In a new Program Group
- In an existing Program Group
- In the Start Menu
- On the Desktop
- In the Quick Launch Bar
- Other
- Don't create icons



Depending on the option you choose, you may also be given the option to create icons for all users by selecting the check box at the bottom of the window. Click **Next**.

- Step 9** If you selected to install the client package only, skip to step 15. If you are installing the server or the combined client and server, continue with the next step.
- Step 10** To accept the default server and event listening ports, click **Next**. If you want to change the ports, enter port numbers within the range 1024 to 65535, then click **Next**.

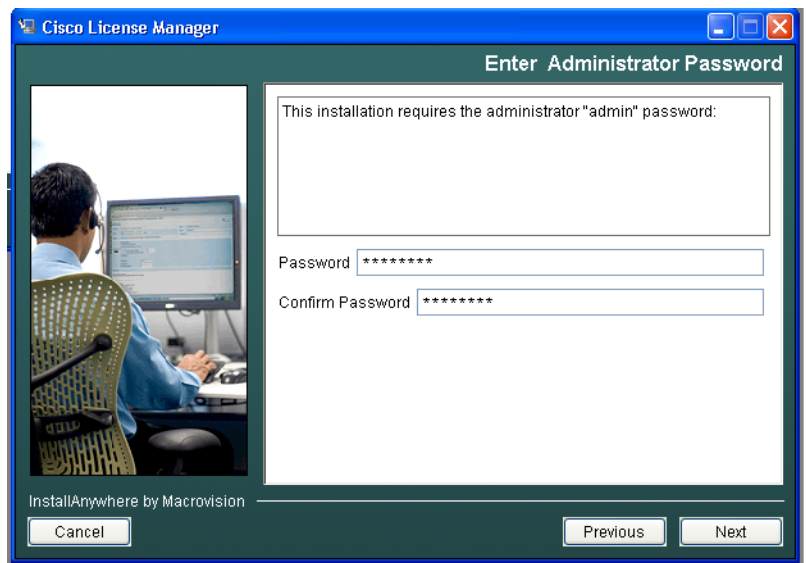


The server listens to this TCP/IP port to receive service requests from client program. The server listens to this TCP/IP port to receive events from devices.

**Tip**

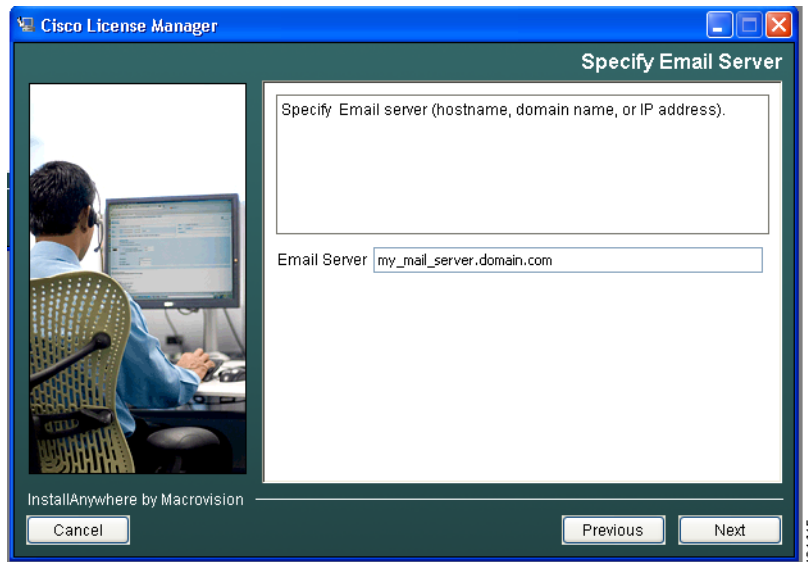
You can update the entries you made during the installation by using the setup program, which is accessible from the shortcut icon **Cisco License Manager Setup** or by entering `$CISCO_LM_HOME\bin\runsetup.bat` from the command line.

- Step 11** Determine if you have SSL-enabled Cisco devices, then do one of the following:
- If you want Cisco License Manager to communicate with SSL-enabled Cisco devices, click **Yes**.
 - If not, click **No**, then click **Next** and skip Step 12 .
- Step 12** If you have SSL-enabled devices, you need to choose a certificate file for SSL authentication between Cisco License Manager and Cisco devices. Click **Choose** and navigate to the certificate file location, then click **Next**.
- Step 13** Enter the administrator password and confirm it by entering it again, then click **Next**.

**Tip**

Remember to store your administrator password in a safe place. If you cannot remember your password, you will need to reinstall Cisco License Manager.

- Step 14** Enter your SMTP e-mail server using either the IP address or the hostname and domain name and click **Next**. For example, `my_emailhost.mywebserver.com`.



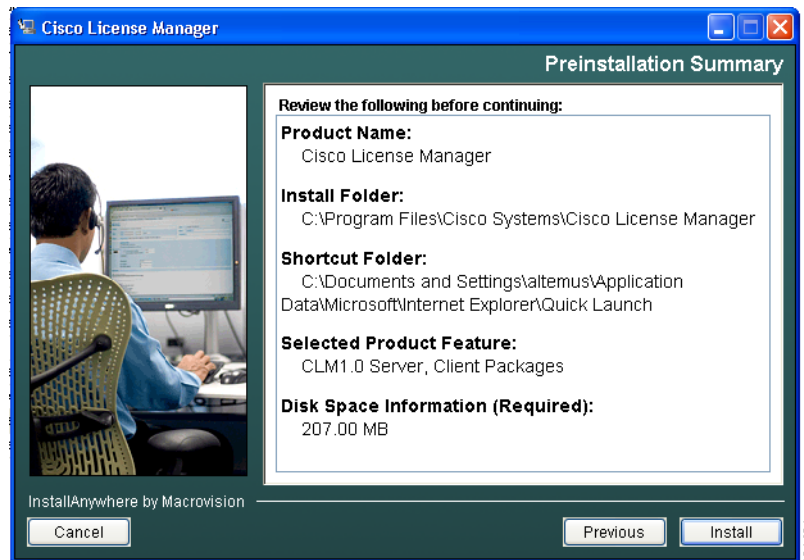
You may see a message stating that your e-mail server cannot be reached. If you want to continue, click **OK**. If you want to reenter the e-mail server, click **Previous** and reenter a server name.

**Tip**

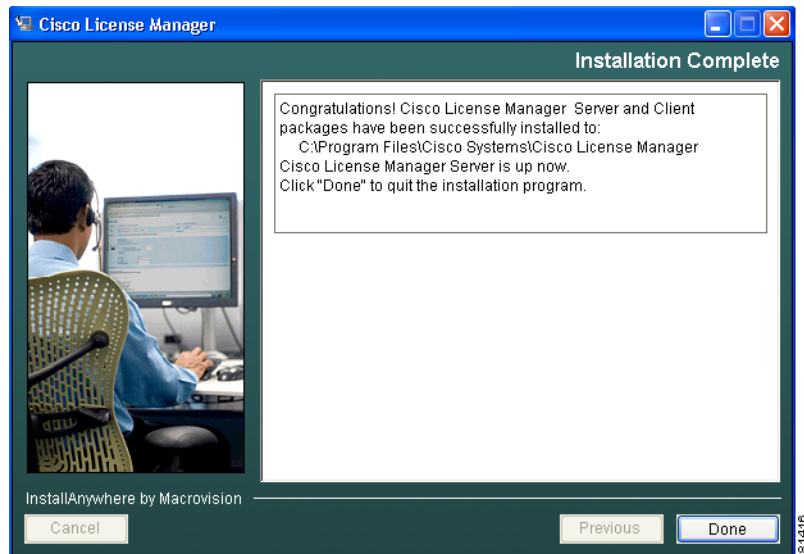
If your e-mail server cannot be reached:

- Check the spelling of the e-mail server name.
- Try to ping the e-mail server through another program to see if it is reachable.
- Skip this step and update the e-mail server after installation. See [Running the Setup Program, page 4-5](#).

Step 15 Review the preinstallation summary information and confirm the installation selections you have made by clicking **Install**. If you need to reenter install information, click **Previous**.



When the installation completes, a message appears informing you that the server is up.



If the installation program does not display the completion message and seems stuck in a pending state, you may have forgotten to disable your security agent. For details on how to recover from this error, see [Installation Does Not Display Completion Panel, page A-3](#).

- Step 16** Click **Done** to exit the installation program.
- Step 17** To start Cisco License Manager, double-click the Cisco License Manager client icon on the desktop or select the application from the Start menu.
- Step 18** To access the online help, choose **Help > Cisco License Manager Help**.

We recommend you back up Cisco License Manager before uninstalling or upgrading. For details on uninstalling, see [Uninstalling Cisco License Manager, page 2-14](#).

Running the Command Line Installation Script

You can run the installation from the command line in either of the following ways:

- Using the GUI with required user interaction (see [Installing Cisco License Manager, page 2-4](#))
- Using the command line without user interaction, with your own customized defaults (see [Installing with a Custom Installation Properties File, page 2-13](#))

Related Topics

- [Installation Properties File, page 2-12](#)
- [Installation Considerations, page 2-1](#)
- [System Requirements, page 2-2](#)
- [Required Installation Preparations, page 2-4](#)

Installation Properties File

The installation properties file includes program defaults (see [Table 2-3 on page 2-12](#)). If you wish to customize any of these defaults, you must edit the file and then perform the installation using your own customized defaults (see [Installing with a Custom Installation Properties File, page 2-13](#)).



Note

It is not necessary to rename the file, but be sure to keep the *.properties extension if you do so.

Table 2-3 *Install.properties File Defaults and Descriptions*

| Parameter | Description | Default |
|-------------------------|--|--|
| INSTALLER_UI | Sets the mode for installation. | Silent |
| USER_INSTALL_DIR | Directory in which to install Cisco License Manager. ¹ The root folder path must be smaller than 180 bytes or an error message is returned. | C:\Program Files\Cisco Systems\Cisco License Manager |
| isServerPackageSelected | Selects the server package to install: 1 = Install server package 0 = Do not install server package Only 1 and 0 are accepted by the installation tool. | 1 (equivalent to true) |
| isClientPackageSelected | Selects the client package to install: 1 = Install client package 0 = Do not install client package Only 1 and 0 are accepted by the installation tool. | 1 (equivalent to true) |
| SERVER_PORT | Sets the port that Cisco License Manager uses. Valid port value range is 1024 to 65535. | 1099 |
| EVENT_PORT | Sets the port on which to listen to events. Valid port value range is 1024 to 65535. | 80 |
| DEVICE_K9_IMAGE_RESULT | Sets whether your SSL-enabled Cisco devices are to allowed to communicate with Cisco License Manager. Values are Yes and No. | No |

Table 2-3 *Install.properties File Defaults and Descriptions*

| Parameter | Description | Default |
|---------------------------|--|------------|
| DEVICE_CERTIFICATE_FOLDER | Folder in which device certificate is stored. ¹ | C:\ |
| DEVICE_CERTIFICATE_FILE | Certificate file for all device authentication. | abc.txt |
| ADMIN_PASSWORD | Administrative password. | password |
| RE_ADMIN_PASSWORD | Reenter administrative password. | password |
| EMAIL_RESULT | SMTP e-mail server hostname or IP address to use for activity. | No default |

1. Use two backslashes, (\), as the file path separator instead of using only a single backslash, \, when entering the absolute file path in USER_INSTALL_DIR and DEVICE_CERTIFICATE_FOLDER entries. For example: C:\Program Files\Cisco Systems\Cisco License Manager

The following is an example of an install.properties file.

```

INSTALLER_UI=silent
USER_INSTALL_DIR=C:\\Program files\\Cisco Systems\\Cisco License Manager
isServerPackageSelected=0
isClientPackageSelected=1
SERVER_PORT=1024
EVENT_PORT=8888
DEVICE_K9_IMAGE_RESULT=Yes
DEVICE_CERTIFICATE_FOLDER=C:\\certificate
DEVICE_CERTIFICATE_FILE=abc.cer
ADMIN_PASSWORD=adminxyz
RE_ADMIN_PASSWORD=adminxyz
EMAIL_RESULT=myemail_server.xyz.com

```

Installing with a Custom Installation Properties File

To install Cisco License Manager with your own defaults, run the installation script with an install.properties file you have customized. For an example of the install.properties file, see [Installation Properties File, page 2-12](#).

Step 1 Edit the install.properties file and save a copy to your local machine.



Tip

It is not necessary to rename the file, but be sure to keep the *.properties extension if you do so.

Step 2 At the command line, enter:

```
clm_installer.bat -f c:\directory1\directory2\custom_installer_name.properties
```

where *custom_installername.properties* is the name of the customized install.properties file with the absolute path if the file is not located in the same directory as the clm_installer.bat file.

The installation runs using your customized properties file. When it is complete, a message appears.

Verifying Your Installation

After your installation is complete, start Cisco License Manager to verify that it installed successfully.

Step 1 Depending on the installation options you choose, start Cisco License Manager.

For example:

- Click the task bar **Start** menu and select **Programs > Cisco Systems > Cisco License Manager**.
- Double-click the Cisco License Manager Client icon on your desktop or task bar.

The application opens and displays the login window.

Step 2 Log in using the admin user password you provided during installation.

For details on logging in, see [Logging In, page 3-5](#). If you cannot login, see [Troubleshooting Tips, page A-2](#) for some helpful information.

Step 3 Continue to [Chapter 3, “Getting Started,”](#) for details on what to do before you begin adding users or devices.

Uninstalling Cisco License Manager

Use the Windows Add or Remove Programs option to uninstall Cisco License Manager. If you choose to uninstall Cisco License Manager, the uninstaller removes all the Cisco License Manager files and directories from your computer. It also removes the Cisco License Manager Client and Cisco License Manager Server registry keys (if present) from the Windows registry. It does not remove files and folders created after the installation.



Note

There may be more than one Cisco License Manager program if you installed the Cisco License Manager server and client in different directories.

The uninstallation filename is `$CISCO_LM_HOME\Uninstaller\Uninstall Cisco License Manager.exe`. The Windows Add or Remove Programs option starts the uninstall executable file.

Step 1 Close all Cisco License Manager command and GUI windows.



Caution

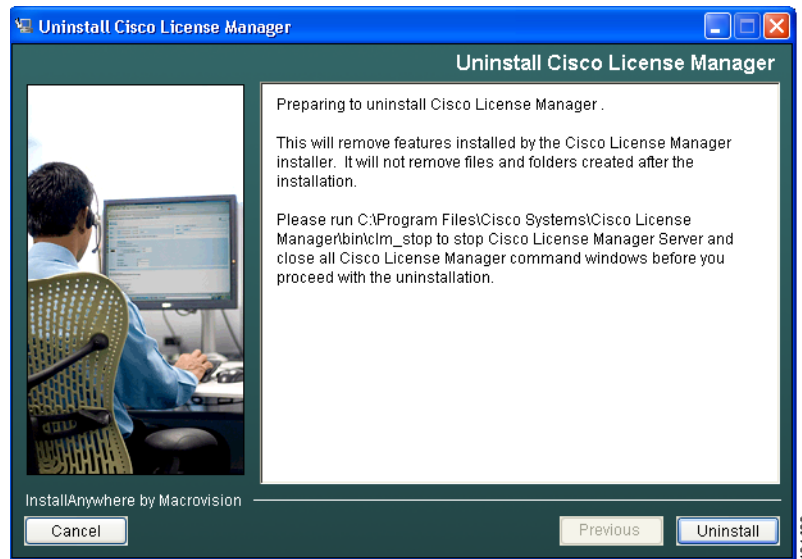
If you do not close these windows, the Cisco License Manager package will not uninstall completely. Any files which are referenced by open windows are not removed during the uninstallation.

Step 2 Run `$USER_INSTALL_DIR\bin\clm_stop` from the command window to stop the Cisco License Manager server.

Step 3 Select **Start > Control Panels > Add or Remove Programs**.

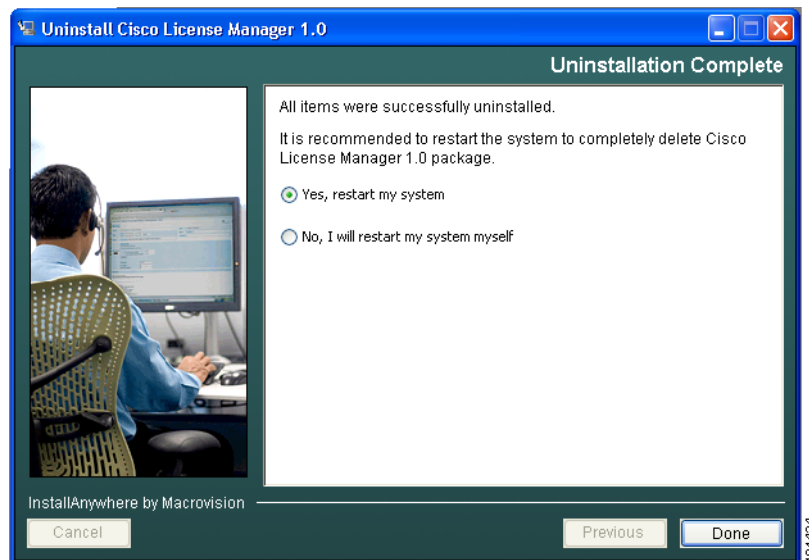
Step 4 Select Cisco License Manager and click **Change/Remove**.

The Uninstall Cisco License Manager window appears.



Step 5 Click **Uninstall**.

The Uninstall Complete window appears.



Step 6 Select one of the options:

- Click **Yes, restart my system** to restart the system to completely remove all application files.
- Click **No, I will restart my system myself** if you want to restart later.

Step 7 Click **Done** to complete the uninstallation.

Reinstalling Cisco License Manager

If you want to reinstall Cisco License Manager, you need to uninstall the current application first and ensure you restart your system. Restarting removes any Cisco License Manager files left after the uninstallation.

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- Step 1** Run uninstallation if you have not already done so. See [Uninstalling Cisco License Manager, page 2-14](#).
 - Step 2** Restart your computer.
 - Step 3** Install Cisco License Manager. See [Installing Cisco License Manager, page 2-4](#) for instructions.
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