Enterprise License Manager User Guide, Release 9.1(2)

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Preface

This preface describes the purpose and audience of this guide, and provides information on how to obtain related documentation.

Purpose

The Enterprise License Manager User Guide provides instructions on how to install, set up, and use Enterprise License Manager.

Audience

This document provides information for network administrators and engineers who are responsible for installing and managing Enterprise License Manager.

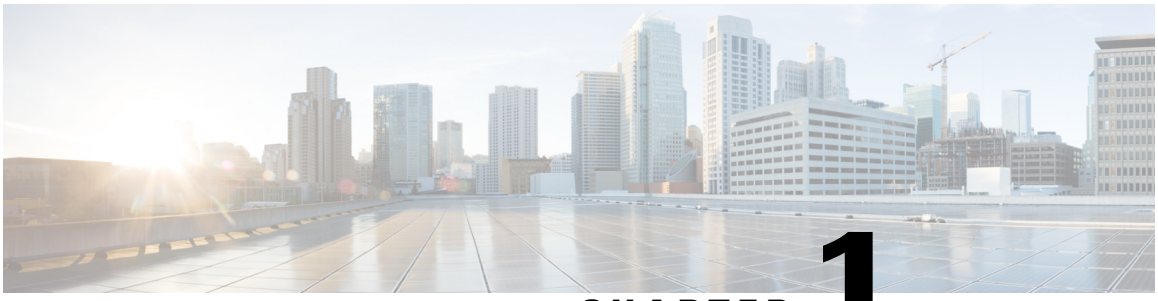
Related documentation

Refer to the following documents for further information about related licensing applications and products:

- *Using Cisco Unified Communications Manager License Count Utility*
- *Cisco Unified Communications Manager Features & Services Guide*, "Licensing" chapter
- *Cisco Unified Communications Manager Administration Guide*, "Other System Menu Options" chapter

Obtaining technical assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools. For Cisco.com registered users, additional troubleshooting tools are available from the Cisco Technical Assistance Center website.



CHAPTER 1

Enterprise License Manager

Enterprise License Manager provides simplified, enterprise-wide management of user-based licensing, including license fulfillment. Enterprise License Manager handles licensing fulfillment, supports allocation and reconciliation of licenses across supported products, and provides enterprise-level reporting of usage and entitlement.

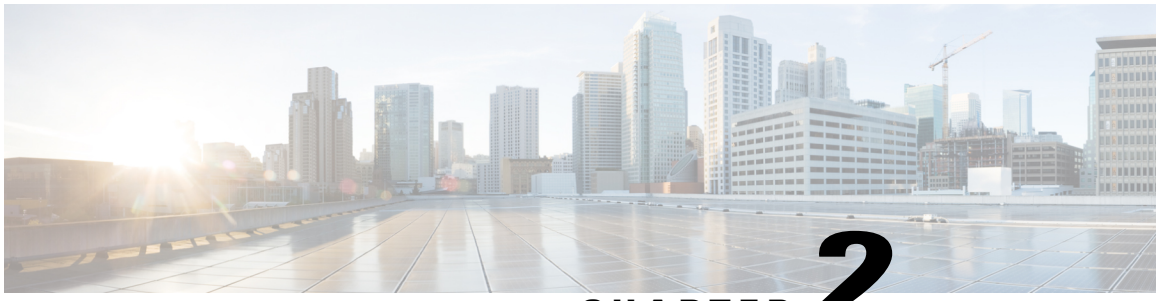
Note You have the ability to define how to manage licensing of your enterprise. You can have one Enterprise License Manager for the entire enterprise, or you can have several Enterprise License Managers and divide the enterprise in a manner that best suits your needs.

Enterprise License Manager can run on a separate server or virtual machine or can coreside on a product's server or virtual machine. For more information on designing Cisco Unified Communications Systems, see www.cisco.com/go/ucsrnd.

Supported products

Enterprise License Manager supports the following products:

- Cisco Unified Communications Manager
- Cisco Unity Connection



CHAPTER 2

Enterprise License Manager installation and upgrade

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Enterprise License Manager installation

Enterprise License Manager is installed automatically as part of the installation of Unified CM, Unity Connection, or both, as well as Unified Communications Manager Business Edition 5000 and Unified Communications Manager Business Edition 6000. You may choose to run Enterprise License Manager on one of these servers in a co-resident configuration, or you may opt to run Enterprise License Manager in a standalone configuration.

For a standalone configuration, Enterprise License Manager must be installed separately. This installation follows the same installation framework as Unified CM and Unity Connection, as described below.

Important A standalone Enterprise License Manager supports the same OVA or MCS server types that are supported for Unified CM 9.X or Unity Connection.

Important In a virtual environment, Enterprise License Manager requires a static MAC address to function properly.

Install standalone Enterprise License Manager

This section describes how to install Enterprise License Manager on a standalone server or virtual machine. You install the operating system and application by running one installation program. This document divides the procedure for using this installation program into the following major topics:

- Start installation
- Enter configuration information
- Perform basic installation
- Configure the first node

Navigate installation wizard

For instructions on how to navigate within the installation wizard, refer to the following table.

Table 1: Installation Wizard Navigation

To Do This	Press This
Move to the next field	**Tab**
Move to the previous field	**Alt-Tab**
Select an option	Space bar or **Enter**
Scroll up or down in a list	Up or down arrow
Go to the previous window	Space bar or Enter to select Back (when available)
Get help information on a window	Space bar or Enter to select Help (when available)

Start installation

Procedure

Step 1 Insert the installation DVD into the tray and restart the server, so it boots from the DVD. After the server completes the boot sequence, the DVD Found window displays.

Step 2 To perform the media check, select **Yes** or, to skip the media check, select **No.**
The media check checks the integrity of the DVD. If your DVD passed the media check previously, you might choose to skip the media check.

Step 3 If you select Yes to perform the media check, the Media Check Result window displays. Perform these tasks:

- If the Media Check Result displays Pass, select OK to continue the installation.
- If the media fails the Media Check, either download another copy from Cisco.com or obtain another DVD directly from Cisco.

Step 4 The system installer performs the following hardware checks to ensure that your system is correctly configured. If the installer makes any changes to your hardware configuration settings, you will get prompted to restart your system. Leave the DVD in the drive during the reboot:
First, the installation process checks for the correct drivers, and you may see the following warning:

```
No hard drives have been found. You probably need to manually choose device drivers for
install to succeed. Would you like to select drivers now?
```

Step 5 To continue the installation, select **Yes.**
The installation next checks to see whether you have a supported hardware platform. If your server does not meet the exact hardware requirements, the installation process fails with a critical error. If you think this is not correct, capture the error and report it Cisco support.

The installation process next verifies RAID configuration and BIOS settings.

Note If this step repeats, select **Yes** again.

If the installation program must install a BIOS update, a notification appears telling you that the system must reboot. Press any key to continue with the installation.

After the hardware checks complete, the Product Deployment selection window displays.

Step 6 In the Product Deployment selection window, select **Cisco Enterprise License Manager**.

Step 7 If software is currently installed on the server, the Overwrite Hard Drive window opens and displays the current software version on your hard drive and the version on the DVD. Select **Yes** to continue with the installation or **No** to cancel.
Caution: If you select Yes on the Overwrite Hard Drive window, all existing data on your hard drive gets overwritten and destroyed.

The Platform Installation wizard displays. You may begin the install configuration.

Step 8 Select one of the following options:

- To enter your configuration information manually and have the installation program install the configured software on the server, select **Proceed** and continue with this procedure.

- To install the software before manually configuring it, select **Skip** and continue with the "Enter Configuration Information" procedure. In this case the installation program installs the software, then prompts you to configure it manually. You can select **Skip** if you want to pre-install the application on all your servers first and then enter the configuration information at a later time. This method might cause you to spend more time performing the installation than the other methods.
- To cancel the installation, select **Cancel**.

Step 9 In the Basic Install window, select **Continue** to install the software version on the DVD or configure the pre-installed software. Continue with the "Perform the Basic Installation" section.

Enter configuration information

Start here if you chose **Skip** in the Platform Installation Wizard window.

Procedure

Step 1 After the system restarts, the Preexisting Installation Configuration window displays.

Step 2 To continue with the Platform Installation Wizard, select **Proceed.**

Step 3 In the Basic Install window, select **Continue**. Continue with the "Perform the Basic Installation" section.

Perform basic installation

Procedure

Step 1 When the Timezone Configuration displays, select the appropriate time zone for the server and then select **OK.**
The Auto Negotiation Configuration window displays.

Step 2 The installation process allows you to automatically set the speed and duplex settings of the Ethernet network interface card (NIC) by using automatic negotiation. You can change this setting after installation.

- To enable automatic negotiation, select **Yes** and continue with Step 5.

The MTU Configuration window displays.

To use this option, your hub or Ethernet switch must support automatic negotiation.

- To disable automatic negotiation, select **No** and continue with Step 3.

The NIC Speed and Duplex Configuration window displays.

Step 3 If you chose to disable automatic negotiation, manually select the appropriate NIC speed and duplex settings now and select **OK** to continue.
The MTU Configuration window displays.

Step 4 In the MTU Configuration window, you can change the MTU size from the operating system default. The maximum transmission unit (MTU) represents the largest packet, in bytes, that this host will transmit on the network. If you are unsure of the MTU setting for your network, use the default value, which is 1500 bytes.
Caution: If you configure the MTU size incorrectly, your network performance can be affected.

- To accept the default value (1500 bytes), select **No.**
- To change the MTU size from the operating system default, select **Yes**, enter the new MTU size, and select **OK.**

The DHCP Configuration window displays.

Step 5 For network configuration, you can select to either set up a static network IP address for the node or to use Dynamic Host Configuration Protocol (DHCP). Static IP addresses are recommended. If you select the DHCP option, an IP address is dynamically assigned by the DHCP server.

- If you have a DHCP server that is configured in your network and want to use DHCP, select **Yes**. The network restarts, and the Administrator Login Configuration window displays. Skip to Step 8.
- If you want to configure a static IP address for the node, select **No**. The Static Network Configuration window displays.

Step 6 If you chose not to use DHCP, enter your static network configuration values and select **OK**. See *Installing Cisco Unified Communications Manager for Node Configuration Data*.
The DNS Client Configuration window displays.

Step 7 To enable DNS, select Yes, enter your DNS client information, and select OK. See *Installing Cisco Unified Communications Manager* for information on the field descriptions of node configuration data.
The network restarts by using the new configuration information, and the Administrator Login Configuration window displays.

Step 8 Enter your Platform Administrator login and password. See Installing *Cisco Unified Communications Manager for information* on the field descriptions of node configuration data.
The Platform Administrator login must start with an alphabetic character, be at least six characters long, and can contain alphanumeric characters, hyphens, and underscores. You will need the Platform Administrator login to log in to Cisco Unified Communications Operating System Administration, the command line interface, and the Disaster Recovery System.

The Certificate Information window displays.

Step 9 Enter your certificate signing request information and select **OK.**

Step 10 The Network Time Protocol Client Configuration window displays.
Cisco recommends that you use an external NTP server to ensure accurate system time on the first node. Ensure the external NTP server is stratum 9 or higher (meaning stratums 1-9). Subsequent nodes in the cluster will get their time from the first node.When you install Cisco Unity Connection on a virtual machine, you must specify an external NTP server.

Step 11 Choose whether you want to configure an external NTP server or manually configure the system time.

- To set up an external NTP server, select **Yes** and enter the IP address, NTP server name, or NTP server pool name for at least one NTP server. You can configure up to five NTP servers, and Cisco recommends that you use at least three. Select **Proceed** to continue with the installation.

The system contacts an NTP server and automatically sets the time on the hardware clock.

Note: If the Test button displays, you can select **Test** to check whether the NTP servers are accessible.

- To manually configure the system time, select **No** and enter the appropriate date and time to set the hardware clock. Select **OK** to continue with the installation.

The Security Configuration window displays.

Step 12 Enter the Security password. See Installing Cisco Unified Communications Manager for information on the field descriptions of node configuration data.
Note: The Security password must start with an alphanumeric character, be at least six characters long, and can contain alphanumeric characters, hyphens, and underscores. The system uses this password to authorize communications between nodes, and you must ensure this password is identical on all nodes in the cluster.

Step 13 Select **OK**. The Application User Configuration window displays.

Step 14 Enter the Application User name and password (see *Installing Cisco Unified Communications Manager*). Enter the password again to confirm.

Step 15 Select **OK**. The Platform Configuration Confirmation window displays.

Step 16 To continue with the installation, select **OK**; or to modify the platform configuration, select **Back.**
The system installs and configures the software. The DVD drive ejects, and the server reboots. Do not reinsert the DVD.

Step 17 When the installation process completes, you are prompted to log in by using the Administrator account and password.

Step 18 Complete the post-installation tasks that are listed in the "Post-Installation Tasks" section.

Step 19 Once complete, a message appears indicating that the Enterprise License Manager install has completed successfully.

Upgrade information

Use the following information to upgrade software in a standalone configuration.

Upgrade software through platform GUI

This section provides procedures for upgrading, via the platform GUI, using one of the following methods:

- Upgrade from a local source
- Upgrade from a remote source

Note Do not use the browser controls, such as Refresh/Reload, while you are accessing Cisco Unified Operating System Administration. Instead, use the navigation controls that are provided by the interface.

Upgrade from local source

Procedure

Step 1 If you do not have a Cisco-provided upgrade disk, create an upgrade disk by burning the upgrade file that you downloaded onto a DVD as an ISO image.
Note Just copying the .iso file to the DVD will not work. Most commercial disk burning applications can create ISO image disks.

Step 2 Insert the new DVD into the disc drive on the local server that is to be upgraded.

Step 3 From the Administration Settings > OS Admin page, log in to Cisco Unified Communications Operating System Administration.

Step 4 Navigate to **Software Upgrades > Install/Upgrade**.
The Software Installation/Upgrade window displays.

Step 5 From the **Source** list, select **DVD.**

Step 6 Enter a slash (/) in the Directory field.

Step 7 To continue the upgrade process, click **Next.**

Step 8 Choose the upgrade version that you want to install and click **Next**.

Step 9 In the next window, monitor the progress of the download.

Step 10 If you want to install the upgrade and automatically reboot to the upgraded partition, select **Switch to new version after upgrad (system reboots)**. The system restarts and is running the upgraded software.

Step 11 If you want to install the upgrade and then manually reboot to the upgraded partition at a later time, do the following steps:

a) Select **Do not switch to new version after upgrade (no system reboots)**.
b) Click **Next**. The Upgrade Status window displays the Upgrade log.
c) When the installation completes, click **Finish**.
d) To restart the system and activate the upgrade, select **Settings > Version**; then, click **Switch Version**.

The system restarts running the upgraded software.

Upgrade from remote source

To upgrade the software from a network location or remote server, use the following procedure.

Procedure

Step 1 Put the upgrade file on an FTP or SFTP server that the server that you are upgrading can access.

Step 2 Log in to Cisco Unified Communications Operating System Administration.

Step 3 Navigate to **Software Upgrades > Install/Upgrade**.
The Software Installation/Upgrade window displays.

Step 4 From the **Source** list, select **Remote Filesystem**.

Step 5 In the **Directory** field, enter the path to the directory that contains the patch file on the remote system. If the upgrade file is located on a Linux or Unix server, you must enter a forward slash at the beginning of the directory path. For example, if the upgrade file is in the patches directory, you must enter /patches If the upgrade file is located on a Windows server, remember that you are connecting to an FTP or SFTP server, so use the appropriate syntax, including:

- Begin the path with a forward slash (/) and use forward slashes throughout the path.
- The path must start from the FTP or SFTP root directory on the server, so you cannot enter a Windows absolute path, which starts with a drive letter (for example, C:).

Step 6 In the **Server** field, enter the server name or IP address.

Step 7 In the **User Name** field, enter your user name on the remote server.

Step 8 In the **User Password** field, enter your password on the remote server.

Step 9 Select the transfer protocol from the **Transfer Protocol** field.

Step 10 To continue the upgrade process, click **Next**.

Step 11 Choose the upgrade version that you want to install and click **Next**.

Step 12 In the next window, monitor the progress of the download.
If you lose your connection with the server or close your browser during the upgrade process, you may see the following message when you try to access the Software Upgrades menu again:

```
Warning: Another session is installing software, click Assume Control to take over the
installation.
```

If you are sure you want to take over the session, click **Assume Control**.

If Assume Control does not display, you can also monitor the upgrade with the Real Time Monitoring Tool.

Step 13 If you want to install the upgrade and automatically reboot to the upgraded partition, select **Switch to new version after upgrad (system reboots)**. The system restarts and runs the upgraded software.

Step 14 If you want to install the upgrade and then manually reboot to the upgraded partition at a later time, do the following steps:

a) Select **Do not switch to new version after upgrade (no system reboots)**.
b) Click **Next**. The Upgrade Status window displays the Upgrade log.
c) When the installation completes, click **Finish**.
d) To restart the system and activate the upgrade, select **Settings > Version**; then, click **Switch Version**.

The system restarts and is running the upgraded software.

Upgrade standalone Enterprise License Manager using CLI

To initiate an upgrade from a local or remote source using CLI commands, use the following procedures.

Upgrade from local source

Before You Begin

If you do not have a Cisco-provided upgrade disk, create an upgrade disk by burning the upgrade file that you downloaded onto a DVD as an ISO image.

Just copying the .iso file to the DVD will not work. Most commercial disk burning applications can create ISO image disks.

Procedure

Step 1 Insert the new DVD into the disc drive on the local server that is to be upgraded.

Step 2 Enter the **utils system upgrade initiate** command, as shown in the following example.

Example:

```
admin:utils system upgrade initiate
```

The following options appear:

```
Warning: Do not close this window without first exiting the upgrade command.
Source:
1) Remote Filesystem via SFTP
2) Remote Filesystem via FTP
3) Local DVD/CD
q) quit
Please select an option (1 - 3 or "q" ):
```

Step 3 Select option 3.
The following options appear:

```
1) UCSInstall_UCOS_9.0.0.98000-9004.iso
q) quit
Please select an option (1 - 3 or "q" ):
```

Step 4 Select option 1 to download upgrade file.
The following messages appear:

```
Accessing the file. Please wait...
Checksumming the file...
Validating the file...
A system reboot is required when the upgrade process completes or is canceled.
This will ensure services affected by the upgrade process are functioning properly.
Downloaded: UCSInstall_UCOS_9.0.0.98000-9004.iso
File version: 9.0.0.98000-9004
```

```
File checksum: 86:55:58:dc:c4:3a:82:88:ff:45:ae:e3:33:ca:c4:41
```

Step 5 Enter yes to automatically switch versions if the upgrade was successful.
```
Automatically switch versions if the upgrade is successful (yes/no): yes
```

Step 6 Enter yes to start installation.
```
Start installation (yes/no): yes
```

Upgrade from remote source

Procedure

Step 1 Enter the **utils system upgrade initiate** command, as shown in the following example.

Example:
```
admin:utils system upgrade initiate
```

The following options appear:
```
Warning: Do not close this window without first exiting the upgrade command.
Source:
1) Remote Filesystem via SFTP
2) Remote Filesystem via FTP
3) Local DVD/CD
q) quit
Please select an option (1 - 3 or "q" ):
```

Step 2 Select option 1.

Step 3 Enter Directory, Server, User Name, and Password information when prompted.

Example:
```
Directory: /ws/kradhal-rcd/kradhal-lic-cct-ccm/iso
Server: se042c-94-193
User Name: kradhal
Password: ********
Please enter SMTP Host Server (optional):
Checking for valid upgrades. Please wait...
```

a) (Optional) Enter SMTP Host Server to receive email notification once upgrade is complete.

The following options appear:
```
Available options and upgrades in
"se042c-94-193:/ws/kradhal-rcd/kradhal-lic-cct-ccm/iso":
1) UCSInstall_UCOS_9.0.0.98000-9004.iso
2) ciscocm.dst-updater.2011h-1.el5.9.0.0.cop
3) cmterm-devicepack9.0.0.98000-9004.cop
q) quit
Please select an option (1 - 3 or "q" ):
```

Step 4 Select option 1 to download upgrade file.
The following messages appear:
```
Accessing the file. Please wait...
Downloaded 4829 MB.
```

```
Checksumming the file...
Validating the file...
A system reboot is required when the upgrade process completes or is canceled.
This will ensure services affected by the upgrade process are functioning properly.
Downloaded: UCSInstall_UCOS_9.0.0.98000-9004.iso
File version: 9.0.0.98000-9004
File checksum: 86:55:58:dc:c4:3a:82:88:ff:45:ae:e3:33:ca:c4:41
```

Step 5 Enter yes to automatically switch versions if the upgrade was successful.

```
Automatically switch versions if the upgrade is successful (yes/no): yes
```

Step 6 Enter yes to start installation.

```
Start installation (yes/no): yes
```

Post-upgrade tasks

After the upgrade, perform the following tasks:

- Check the version number in the About box to verify that it is the expected upgraded version.
- Perform a synchronization by selecting **Inventory > Product Instances > Synchronize Now**.
- Check the Dashboard to verify that there are no alerts.

Install COP files

Use the following procedure to install Cisco Option files (COP) files. COP files are used to enable additional functionality (for example: localization).

Procedure

Step 1 Obtain and store the COP file from Cisco.com by selecting **Product/Technology Support > Download Software** .

Step 2 Place the COP file on an FTP or SFTP server that the server that you are upgrading can access.

Step 3 Log in to Cisco Unified Communications Operating System Administration.

Step 4 Navigate to **Software Upgrades > Install/Upgrade**.
The Software Installation/Upgrade window displays.

Step 5 From the Source list, select **Remote Filesystem**.

Step 6 In the Directory field, enter the path to the directory that contains the patch file on the remote system. If the upgrade file is located on a Linux or Unix server, you must enter a forward slash at the beginning of the directory path. For example, if the upgrade file is in the patches directory, you must enter /patches If the upgrade file is located on a Windows server, remember that you are connecting to an FTP or SFTP server, so use the appropriate syntax, including:

a) Begin the path with a forward slash (/) and use forward slashes throughout the path.

b) The path must start from the FTP or SFTP root directory on the server, so you cannot enter a Windows

Step 7 In the Server field, enter the server name or IP address.

Step 8 In the User Name field, enter your user name on the remote server.

Step 9 In the User Password field, enter your password on the remote server.

Step 10 Select the transfer protocol from the Transfer Protocol field.

Step 11 Select the COP file that you want to install from Software Location, Options/Upgrades and click **Next**.

Step 12 In the next window, monitor the progress of the download.
If you lose your connection with the server or close your browser during the upgrade process, you may see the following message when you try to access the Software Upgrades menu again:

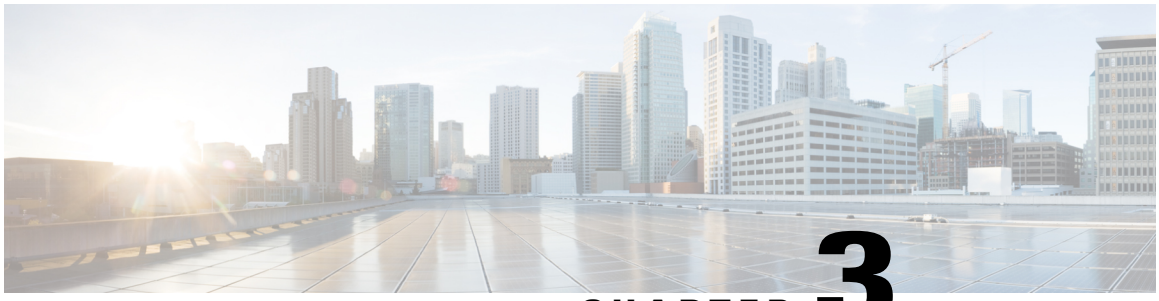
```
Warning: Another session is installing software; click Assume Control to take over the
installation.
```

If you are sure you want to take over the session, click **Assume Control**.

Step 13 Once the download is complete, confirm the file checksum details and click **Next**.

Step 14 In the next window, monitor the progress of the installation.

Note The installation of a COP file **may** require a system restart. This restart requirement will be stated in the output section of the log. Cisco recommends that you perform this restart during an off-peak period.



CHAPTER 3

Enterprise License Manager operation

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Enterprise License Manager considerations

Follow these steps to begin using Enterprise License Manager:

- Log in to Enterprise License Manager. See Log in to Enterprise License Manager, on page 16.
- Add a product instance. See Add product instance, on page 16.
- Use the Dashboard or the License Usage page to determine what licenses are required for your product. For more information on the Dashboard or the License Usage pages, see System status information, on page 18.
- Migrate your existing licenses if your Enterprise License Manager is managing any product instances that have been upgraded from a pre-9.0 version. See Migrate licenses using Upgrade Licenses wizard.

- Perform new license fulfillment if you have Enterprise License Manager installed on a new standalone system. See Use the Add Licenses wizard to determine new licensing requirements, on page 29.

Log in to Enterprise License Manager

Procedure

Step 1 Select Enterprise License Manager from the list of installed applications.

Step 2 Enter your username and password. Click **Login**.

Note The initial login requires the application username and password that you created as part of the installation. If you are not sure what username and password to use for signing into Enterprise License Manager, see Troubleshooting, on page 49.

Add product instance

The following procedure describes how to add a product instance in Enterprise License Manager.

Important Once you upgrade to Cisco Unified Communications Manager Release 9.0 (or higher), you will no longer be able to install DLUs. To use any currently installed DLUs, you must install them on your Cisco Unified Communications Manager servers prior to upgrading.

Important Only the publisher node in a cluster can be added as a Product Instance. Attempting to add subscribers will result in an error.

Procedure

Step 1 Log in to Enterprise License Manager.

Step 2 Choose **Inventory > Product Instances**.

Step 3 Click **Add**. The Add Product Instance dialog box appears.

Step 4 Enter the following information:

- Name
- Description (optional)
- Product Type
- Hostname/IP Address
- Username
- Password

Note Credentials are the OS Administration username and password of the product.

Step 5 Click **OK** to add the product instance.

Step 6 Once the product instance has been successfully added, the product appears in the Product Instances table.

Note On the Product Instances page, click the Synchronize Now button to extract the licensing information from the new product. If you do not synchronize, current product instance information will not appear in Enterprise License Manager.

Note An asterisk appears next to the version field of all product instances which have pre-9.0 licenses. To make pre-9.0 licenses available in the Enterprise License Manager, they must be migrated. For information on migrating licenses, see: Migrate licenses using Upgrade Licenses wizard.

Note If you wish to add a Cisco Unified Communications Manager Business Edition 5000, you need to add two product instances. The first time you enter the information detailed in Step 4, select Unified CM as the product type. The second time you add a product type, enter a unique name and select Unity Connection as the product type. All other information is the same.

Edit product instance

The following procedure describes how to edit a product instance in Enterprise License Manager.

Procedure

Step 1 To edit a product instance, select that instance from the Product Instance table.

Step 2 From the General tab of the Product Instance details page, edit the preferred settings for the product instance.

Step 3 If the hostname or IP address of the product instance changes, you need to delete the product instance from the Enterprise License Manager prior to changing the hostname/IP address. You then re-add it to the Enterprise License Manager once you have completed the hostname/IP address change.

Delete product instance

Procedure

Step 1 Select the radio button next to the product instance you wish to delete.

Step 2 Click the **Delete** button.

Step 3 A message appears stating that the Product Instance will be permanently deleted, and requesting confirmation to continue or cancel. Click **Continue**.

Step 4 A message appears, confirming that the product instance was successfully deleted.

Step 5 Following a successful deletion, click the Synchronize Now button to obtain the most up-to-date licensing information for all license types in the system.

System status information

The Monitoring section of the Enterprise License Manager interface provides the following views that enable you to monitor the system status:

- Dashboard view, on page 18
- License usage view, on page 19

Dashboard view

The Dashboard provides an “at-a-glance” view of the system. Links in the Dashboard navigate to their related pages within Enterprise License Manager.

Note When Enterprise License Manager is first installed, it operates in Demo mode until a license file is installed. While Enterprise License Manager is in Demo mode, a warning appears at the top of the GUI.

Note Demo mode in Enterprise License Manager refers to the fact that no license file has been installed yet. During the first license file installation process, Enterprise License Manager is registered with the Cisco licensing back office and is no longer in Demo mode. Product instances managed by Enterprise License Manager are not in compliance as long as Enterprise License Manager is in Demo mode. Each product type (for example, Unified CM, Unity Connection) has its own version of "demo mode" that operates independently of Enterprise License Manager’s Demo mode.

The Dashboard contains the following:

Overview

Provides information on Product Instances, Last License Update, and Last Synchronization date and time.

License Usage

Lists the product type and the number of licenses allocated to each of those products.

License Alerts

Lists alerts according to product type and the status of the alert. Alerts indicate:

- License types that are non-compliant
- Licenses that are nearing expiration

Synchronization Failures

Lists the product instance name, reason for failure, and last successful synchronization.

License usage view

The License Usage page identifies the licenses installed on the system and how those licenses have been used at the time of the last synchronization. There are two views available from the License Usage page:

- Table View
- Chart View

Table View

The Table View provides the following information for each license type:

- Type of licenses in use
- Product scope
- Number of licenses required
- Number of licenses installed
- Number of licenses unused
- Status of that license type (for example: in compliance, in violation, and so on)

You can also view license properties and usage by selecting one of license types installed on the system. The License Type details page contains the following information:

- License Description
- Usage Chart
- Usage by Instance
- Installed Licenses by Type

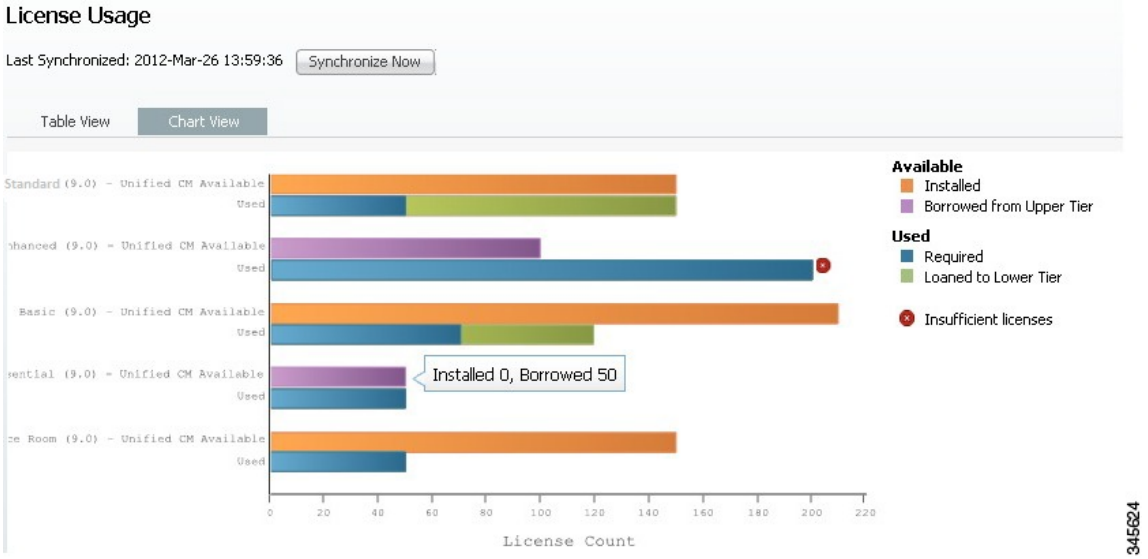
For a comprehensive view of all license types, click the **View all license type descriptions on Cisco.com (new window)** link under the License Description section.

Chart View

The Chart View tab presents a graphical view of the number of licenses used for a particular product. Placing your mouse over each of the chart's bars reveals license count information. The figure below shows a Chart View which illustrates the number of licenses:

- Installed
- Borrowed from Upper Tier
- Required
- Loaned to Lower Tier

The Chart View also identifies, with a red “x”, instances where there are insufficient licenses.



Substitution and tiering

License types are categorized into license tiers, where the higher license tiers offer more functionality than the lower tiers. The License Usage Table View and Chart View (as shown in the figure above) displays the types in order of tier, highest to lowest.

Note TelePresence Room is separate from the other license types and cannot borrow from the others.

License substitution refers to the Enterprise License Manager feature where a higher tier license type can be substituted for a lower-tiered type that would otherwise be in overage. In the Chart View example (in the above figure), there are 50 spare Basic licenses on loan to Essential. In this example, the 50 spare licenses are sufficient to cover the entire Essential overage. If the user installs a license file that adds Essential licenses, the spare Basic licenses would then be available for future Basic requirements.

License fulfillment

Once a product instance has been added (see Add product instance), you must then identify your licensing requirements and plan accordingly.

Note You may wish to check your Dashboard or License Usage page first, to determine what licenses are required for your product. For more information on the Dashboard or the License Usage pages, see System status information.

Enterprise License Manager provides two options for performing license fulfillment:

- Electronic fulfillment (e-Fulfillment)
- Manual fulfillment

Electronic fulfillment is the quicker and easier option of the two; however, in deployments where internet connectivity is not available, a locked-down lab for example, Manual fulfillment may be the only option.

Electronic fulfillment

Use the following procedure to add new licenses via e-Fulfillment.

1. Log in to Enterprise License Manager.
2. Select **License Management > Licenses.**
3. If not already selected, click the **Enable** button to enable e-Fulfillment.
4. Select **Fulfill Licenses from PAK**. The Add/Install Licenses window appears.

Note Next to the Fulfill Licenses from PAK option there is another option entitled "Other Fulfillment options". Selecting the drop-down arrow under this option reveals two options: "Fulfill Licenses from File" and "Generate License Request". These options are the same as those available under Manual fulfillment.

5. Select the **Add licenses from a new PAK** option and enter the Product Authorization Key (PAK) code.

   If you have previously entered PAKs in Enterprise License Manager, you may select the second option, "Add licenses from an already-installed PAK that supports partial fulfillment PAK Codes". Once you have selected that option, select the existing PAK code from the drop-down menu.
6. Click the **Next** button. If prompted for your Cisco.com account information, enter the information you entered when you registered at Cisco.com.
7. Click the **Ok** button. The Review Contents section appears.
8. The licenses within the PAK are listed by SKU name. The numbers of each license are categorized under a number of headings to indicate how many have been used and how many are still available.

   You can install the number of licenses you want by clicking on that license type and entering, under the Install column, the number of licenses you wish to install.

Important In some cases you may not have the option to perform partial fulfillment. In this situation, all licenses are installed.

Note If licenses are listed as "Already Fulfilled" in the Review Contents section, those licenses have been fulfilled by this or another Enterprise License Manager.

9. Click the **Next** button. The License Option section appears. You may enter a description (optional). You may also associate this transaction with a saved add/upgrade license summary by selecting that option and then selecting the name of the license summary from the drop-down list.
10. Select the checkbox to accept the conditions of the End user License Agreement.
11. Click the **Finish** button.
12. Upon successful completion of the e-Fulfillment process, the new fulfillment appears in the Licenses table.

Adjust PAK fulfillment

In e-Fulfillment mode, you can perform partial fulfillment of a particular PAK that has already been partially fulfilled on that Enterprise License Manager using the following procedure:

1. In the License Management > Licenses page, in the License Fulfillment table, select the PAK from the list under the PAK column.

Note An edit (pencil) icon denotes PAKs which support partial fulfillment.

2. The PAK Details window opens, showing the original number of licenses in the PAK. Select **Adjust PAK Fulfillment** to retrieve the current status of the PAK.
3. If prompted, enter your Cisco.com account information (the information entered when you registered at Cisco.com).
4. You can now edit the Install column for each license type.
5. Once you have adjusted your PAK fulfillment numbers; click the **Update PAK Fulfillment** button.

Note Fulfillment numbers can only be increased, never decreased.

Manual fulfillment

Manual fulfillment requires additional steps to perform license fulfillment. In situations where internet connectivity is not available, Manual fulfillment is the only method available. Manual fulfillment is also necessary for license migration, as described below:

1. Migrate existing licenses (if applicable) into Enterprise License Manager. To migrate existing licenses, see Migrate licenses using Upgrade Licenses wizard
2. Once any existing licenses have been migrated, acquire new licenses using the following procedure: Use the Add Licenses wizard to determine new licensing requirements

Migrate licenses using the Migrate Licenses to Enterprise License Manager wizard

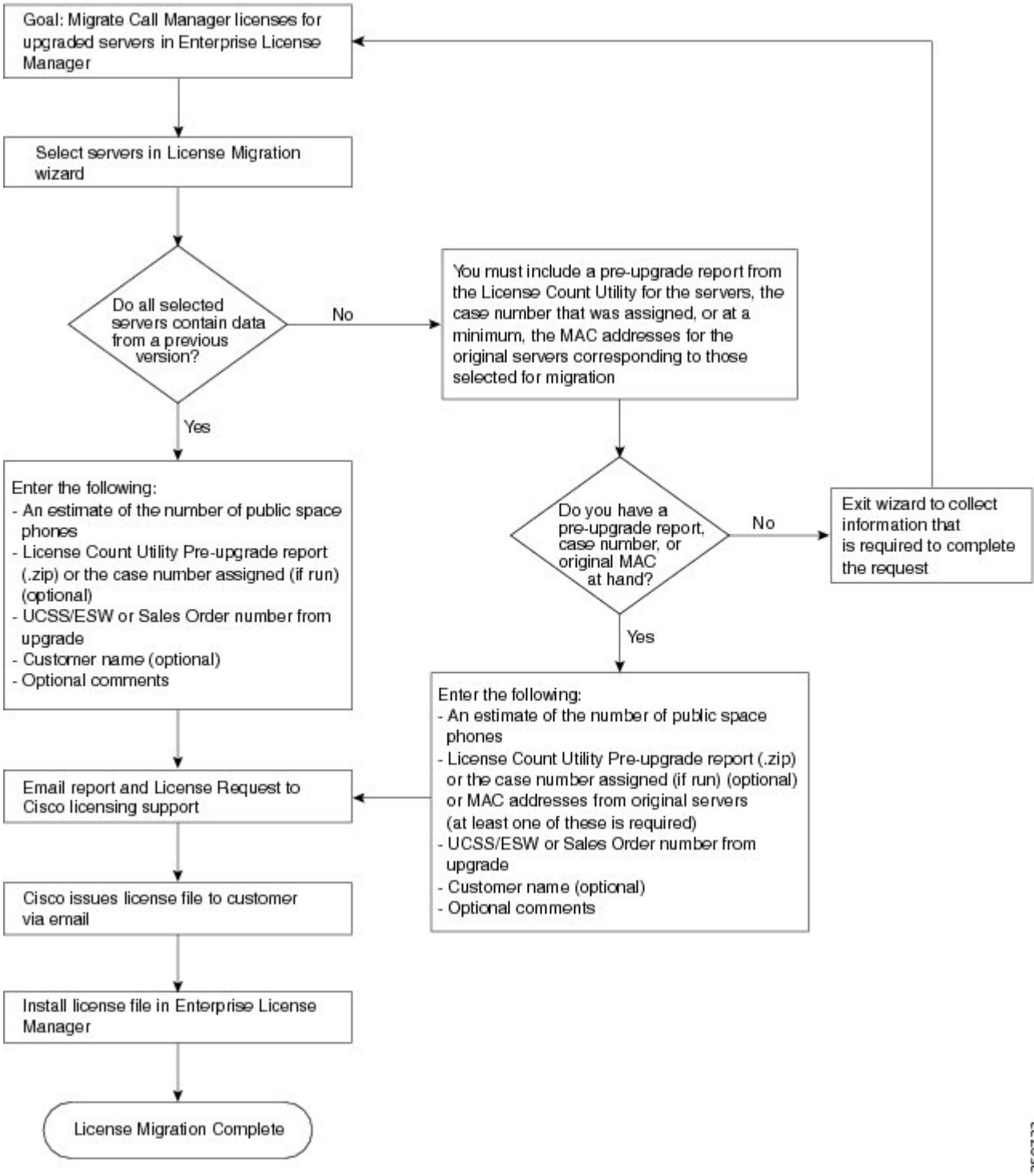
Important If Enterprise License Manager is in demo mode, do not create multiple migration requests. Complete the first migration, including installation of the license, prior to initiating a second migration. If a migration request results in multiple license files, install all of them, in order, before proceeding.

Before You Begin

Attention The migration path you follow depends upon a number of factors (For example: the product type, whether servers contain data from a previous version, etc). The following flow charts provide a guide for the decisions that must be made to successfully complete your migration. For a broader view of the migration process, see the *Release Notes for Cisco Unified Communications Manager, Release 9.1(2)*.

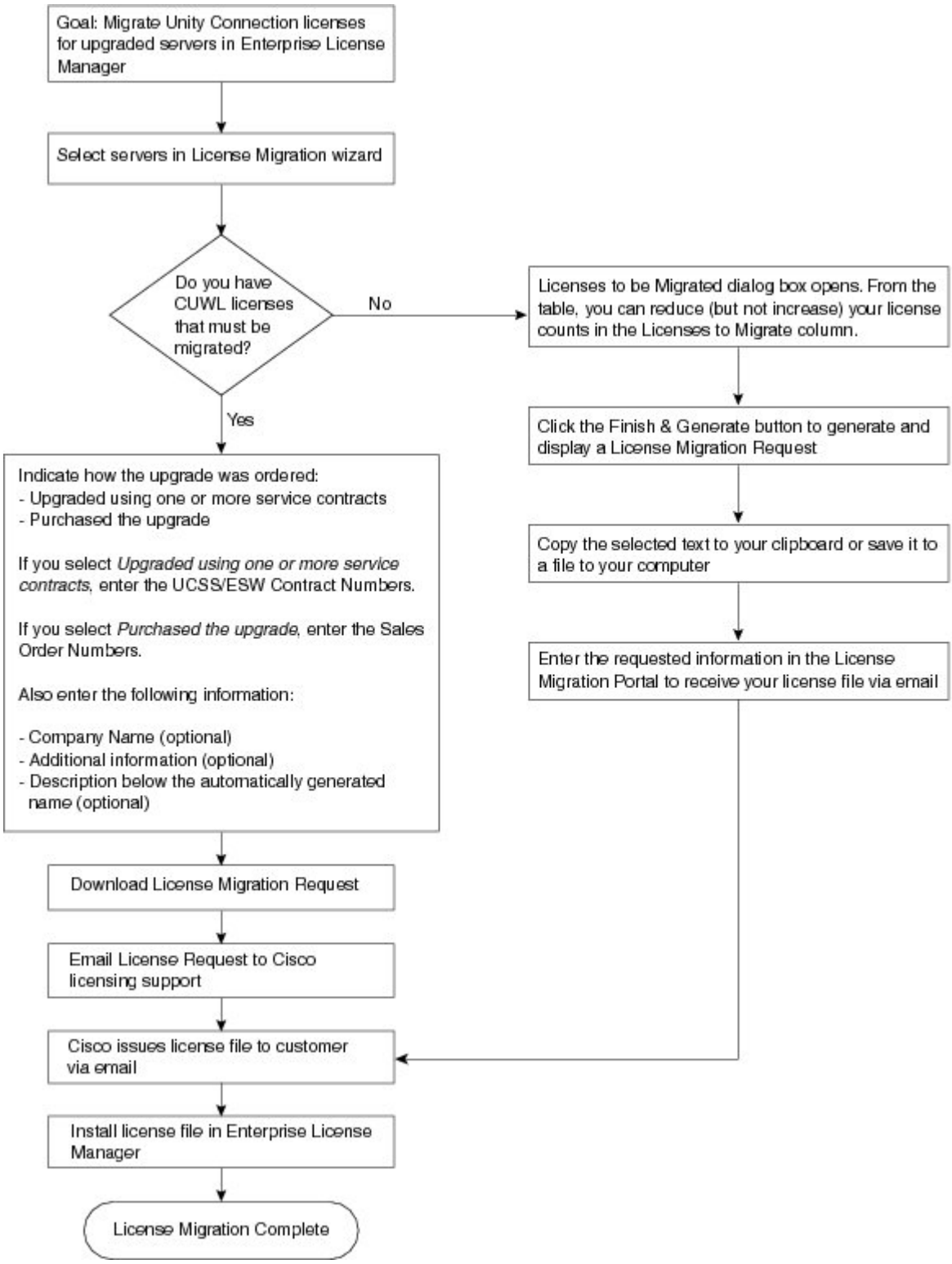
Unified CM follows a particular migration path:

Figure 1: Unified CM migration flow chart



For Unity Connection, a different migration path must be followed:

Figure 2: Unity Connection migration flow chart


Goal: Migrate Unity Connection licenses for upgraded servers in Enterprise License Manager
Select servers in License Migration wizard
Do you have CUWL licenses that must be migrated?
No
Yes
Licenses to be Migrated dialog box opens. From the table, you can reduce (but not increase) your license counts in the Licenses to Migrate column.
Click the Finish & Generate button to generate and display a License Migration Request
Copy the selected text to your clipboard or save it to a file to your computer
Enter the requested information in the License Migration Portal to receive your license file via email
Indicate how the upgrade was ordered:
- Upgraded using one or more service contracts
- Purchased the upgrade
If you select Upgraded using one or more service contracts, enter the UCSS/ESW Contract Numbers.
If you select Purchased the upgrade, enter the Sales Order Numbers.
Also enter the following information:
- Company Name (optional)
- Additional information (optional)
- Description below the automatically generated name (optional)
Download License Migration Request
Email License Request to Cisco licensing support
Cisco issues license file to customer via email
Install license file in Enterprise License Manager
License Migration Complete
350723

Procedure

Step 1 From the License Management > License Planning page in Enterprise License Manager, click the **Migrate Licenses to Enterprise License Manager** button.

Step 2 The Migrate Licenses to Enterprise License Manager wizard window appears. The first step involves choosing the product type. From the Choose Product Type section, select the type of product to upgrade from the drop-down menu. The migration process is outlined in this section, and is dependent on the type of product you select. Click **Next**.

Step 3 The Choose Product Instances section appears. To upgrade a product instance, select it in the Available Product Instances window and click the arrow to move it to the Product Instances to Migrate window.

Note By default, only product instances containing license data from a previous version of Cisco Unified Communications Manager are displayed in the Available Product Instances table. If the product instance you upgraded does not appear in the list, click the "Show additional Unified CM product instances" check box. Selecting this check box adds to the list those product instances that contain no prior license data and those that were included in prior license migration requests.

Click **Next**.

Step 4 The License Counts section appears. If you selected Unified CM as your product type in Step 2, the Summary of Pre-Upgrade Product Instance Data table lists the product instances you selected in the previous step. This table cannot be edited. Below the table are a number of fields that require input.

Field	Input
Public Space Phones	An estimate of the number of public space phones. Public space phones do not have users assigned and are typically placed in shared workspaces, lobbies and meeting rooms. These phones generally require lower level licenses, so providing an estimate of the number of these phones in your deployment will help Cisco more accurately determine your license requirements.
Customer Name (Optional)	You have the option of adding the customer name here for future reference
Case Numbers (Optional)	A case number assigned if the report was sent to Cisco Licensing Support
License Usage Reports (Optional)	Click the **Upload Report** button to open the Upload License Count Utility Report dialog box. Click the **Browse** button to select the report file and then click **Upload Report**.
MAC Addresses (Optional)	The MAC addresses from the original servers that were upgraded. These MAC addresses can be used to look up the licenses that were registered on those product instances.

- Once you have selected the appropriate option and entered the necessary information, click **Next**. Go to Step 6.
- If you selected Unity Connection in Step 2, proceed to Step 5.

Step 5 If you selected Unity Connection as your product type in Step 2, the License Counts section prompts you to choose between two options relating to Cisco Unified Workshop Licenses (CUWL):

Option	Input
I have CUWL licenses to be migrated	Click Next to move on to the Summary and Next Steps section.
I do not have CUWL licenses to be migrated	The Licenses to be Migrated dialog box opens. From the table, you can reduce (but not increase) your license counts in the Licenses to Migrate column. You may also choose to run a compliance check by clicking the Run Compliance Check button, or reset the license values by clicking the Reset Values button. Click OK to close the dialog box and then click Next to move on to the Summary and Next Steps section.

Step 6 The Summary and Next Steps section appears. Again, the product type you selected in Step 2 determines the information displayed in this section.

Product Type selected	Input
Unified CM	In this section you must indicate how the upgrade was ordered: - Upgraded using one or more service contracts - Purchased the upgrade If you select Upgraded using one or more service contracts, enter the **UCSS/ESW Contract Numbers**. If you select Purchased the upgrade, enter the **Sales Order Numbers**. Enter your Cisco user ID in the **Cisco.com (CCO) User ID** field. Company Name and the field used to capture additional information are optional. However; if you enter the company name, it is used in the subject line of the email and is included in the name of the zip file. A default name for the summary also appears in the Name field using the format <productname>-migrate-<date-time-stamp> format. Instructions for placing your order and fulfilling your licenses also appear in this section. Click **Finish & Generate Request**. The License Migration Request and Next Steps window appears. Download the License Migration Request zip file to your PC. Email the License Migration Request to Cisco licensing support using the link provided. Click **Close** to return to the License Planning page.

Product Type selected	Input
Unity Connection > I have CUWL licenses to be migrated	In this section you must indicate how the upgrade was ordered: - Upgraded using one or more service contracts - Purchased the upgrade If you select Upgraded using one or more service contracts, enter the **UCSS/ESW Contract Numbers**. If you select Purchased the upgrade, enter the **Sales Order Numbers**. Enter your Cisco user ID in the **Cisco.com (CCO) User ID** field. Company Name and the field used to capture additional information are optional. However; if you enter the company name, it is used in the subject line of the email and is included in the name of the zip file. A default name for the summary also appears in the Name field using the format <productname>-migrate-<date-time-stamp> format. Instructions for placing your order and fulfilling your licenses also appear in this section. Click **Finish & Generate Request**. The License Migration Request and Next Steps window appears. Download the License Migration Request zip file to your PC. Email the License Migration Request to Cisco licensing support using the link provided. Click **Close** to return to the License Planning page.
Unity Connection > I do not have CUWL licenses to be migrated	In this section you can view and save a summary of the changes you made. To view the summary, click View Summary. A default name for the summary also appears in the Name field using the format <productname>-migrate-<date-time-stamp> format. Instructions for placing your order and fulfilling your licenses also appear in this section. Click **Finish & Generate Request**. The License Migration Request and Next Steps window appears. Copy the selected text to your clipboard or click **Save it to a file on your computer**. Select **License Migration Portal** under Step 2 and paste the copied text in the designated field or select the saved file from your computer. Click **Close** to return to the License Planning page.

Use the Add Licenses wizard to determine new licensing requirements

Use the following procedure to plan the addition of new licenses.

Procedure

Step 1 From the License Management > License Planning page in Enterprise License Manager, click the **Add Licenses Plan** button.

Step 2 The Add Licenses wizard window appears. The first step involves choosing the product type. From the Choose Product section, from the drop-down menus, select the type and version of product to which you want to add a licence. Click **Next**.

Step 3 The Specify License Counts section appears. From this section, adjust the number of licenses that will be allocated to each type of license and click **Save** to save your changes for that license type. You may also choose to run a compliance check by clicking the Run Compliance Check button, or reset the license values by clicking the Reset Values button. Once the number of licenses has been set, click **Next**.
Clicking the arrow next to each license type reveals additional information on that license type.

Step 4 The Summary and Next Steps section appears. In this section you can view and save a summary of the changes you made. You can also enter your own summary name and description.

Step 5 To view the summary, click **View Summary**. The Save Summary in Enterprise License Manager option is selected by default. A default name for the summary also appears in the Name field using the format <productname>-add-<date-time-stamp> format. Instructions for placing your order and fulfilling your licenses also appear in this section. Click **Finish** to complete Add Licenses wizard.

Generate license request

To obtain a new license (using Manual fulfillment), you must first generate a license request through the License Management > Licenses page, and then use the information generated to submit a request. You will then receive your license file via email. Use the following procedure to generate a license request.

Procedure

Step 1 Log in to Enterprise License Manager.

Step 2 From the License Management > Licenses page, select **Generate License Request** from the drop-down list under Other Fulfillment Options.

Step 3 The License Request and Next Steps window appears. Copy the selected text to your clipboard or click **Save the License Request File to your computer**.

What to Do Next

Once you have your license request information saved either to your clipboard or to your computer, you need to access the Cisco License Registration site and paste it into the appropriate field. When you receive your license file via email, install your new license file in Enterprise License Manager using the Install license, on page 31 procedure.

Install license

Before You Begin

Once you have obtained your license using the Migrate licenses using Upgrade Licenses wizard procedure or the Generate license request, on page 30 procedure, you can then install that license in Enterprise License Manager. Use the following procedure to install licenses.

Note This procedure applies mainly to Manual fulfillment. Use of e-Fulfillment does not require use of the Install Licenses feature.

Important If Enterprise License Manager is in demo mode, the initial license fulfillment generated must be installed prior to fulfillment of additional licenses.

Procedure

Step 1 Log in to Enterprise License Manager.

Step 2 Select **License Management > Licenses**.

Step 3 Click the **Install Licenses** button.

Step 4 The Install New License File window appears. Click the **Browse** button.

Step 5 Choose the license file to upload and install, then click **Open**.

Step 6 The license file now appears in the License File field. Click the **Install** button.

Step 7 Once the license is correctly installed, a message appears indicting that the installation was successful. Click **Close** to return to the Licenses page.

CLI commands

Important To use Enterprise License Manager CLI commands, you need a privilege level of 0 or higher.

The following CLI commands are available for Enterprise License Manager:

- **license management list users**
- **license management change user**{**name**| **password**}

For detailed information on these commands, and additional CLI information, see *Command Line Interface Reference Guide for Cisco Unified Solutions*.

New CLI commands for Release 9.1(2)

The following CLI commands have been added for Enterprise License Manager Release 9.1(2):

- **license management reset identity**

  This command resets the licensing identity of the Enterprise License Manager server and removes all installed licenses. You must perform a license rehost to recover any license that was previously installed on this server. This operation may take a few minutes to complete.

- **license management product re-register all**

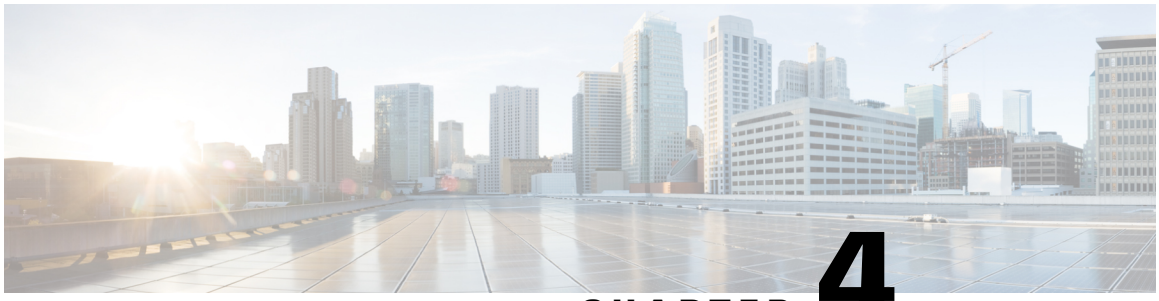
  This command removes any registration conflict by re-registering all the product instances to this Enterprise License Manager server. This command may take some time for re-registration and synchronization with all product instances to complete.

- **license file diagnose** {**full**}

  This command enables you to select a license file from a list and print diagnostic information.

- **license file get** {**compress**}

  This command creates a TAR file of the license file or files on the system and transfers the TAR file to a remote area.



CHAPTER 4

Enterprise License Manager setup

- About window, page 33
- Monitoring view settings, page 34
- Dashboard settings, page 34
- License Usage page settings, page 35
- License Management view settings, page 37
- Licenses page settings, page 37
- License Planning page settings, page 40
- Inventory view settings, page 44
- Administration view settings, page 46

About window

Setting	Description
About	The About dialog box contains the Enterprise License Manager version number and Registration ID number. **Note** This information can be used for re-hosting. Re-hosting is the process that customers must follow to move licenses from one instance of Enterprise License Manager to another. Licenses that have already been issued and fulfilled in one instance of Enterprise License Manager are moved to a new or different instance of Enterprise License Manager through the re-hosting process. As part of this process, it is suggested that the version number and Registration ID number be recorded in some fashion following any installation of Enterprise License Manager.

Monitoring view settings

The Monitoring view contains two pages that allow you to view licensing information and configure product licenses:

- Dashboard settings, on page 34
- License Usage page settings, on page 35

Dashboard settings

Setting	Description
Overview section	
Product Instances	The total number of product instances managed by Enterprise License Manager. Clicking Product Instances takes you to the Inventory > Product Instances page.
Last License Update	The date of the last license update. Clicking Last License Update takes you to the License Management > Licenses page.
Last Synchronization	The date of the last successful synchronization. Clicking Last Synchronization takes you to the Inventory > Product Instances page where you can view the Synchronization Status and Last Successful Synchronization for each product instance. You can also perform a synchronization from this page by clicking the Synchronize Now button. **Note** Synchronization occurs when Enterprise License Manager collects up-to-date licensing information for all license types in the system.
License Alerts section	
Type	License types that are non-compliant
Status	Provides information about the alert (for example, insufficient licenses or when a license is due to expire)
License Usage section	
Type	Specifies the product type
Required	The number of licenses allocated to each of those product types
Synchronization Failures section	

Setting	Description
Name	The name of the system upon which the synchronization was attempted and failed
Failure Reason	Identifies the reason the synchronization failed
Last Success	The date and time of the last successful synchronization

License Usage page settings

The License Usage page provides two distinct views of how licenses are being used:

- Table View
- Chart View

Note In both Table and Chart views, you have the option of synchronizing the licenses by clicking the Synchronize Now button.

Setting	Description
Table View	
Type	The name of the license types supported within the product scope. For more information, click on a particular license type in the Type column to open a detailed license type page.
Product Scope	The product type
Required	The number of licenses required by the product instances in order to deliver the services you have provisioned on those servers.
Installed	The number of licenses currently installed
Unused	The difference between the number of Required and Installed licenses. The numbers in this column are color-coded to represent the state of unused licenses for a particular license type. If the number is red, the number of licenses is considered insufficient. If the number is black, the number of licenses is considered to be in compliance.
Status	The license status (ex: “Temp Licenses Nearing Expiration”, “In Compliance”)

Setting	Description
Synchronize Now button	Synchronizes Enterprise License Manager with the product instances to obtain the most up-to-date licensing information for all license types in the system
Chart View	
Available	The Available licenses are categorized as: • Installed • Borrowed from Upper Tier
Used	The Used licenses are categorized as: • Required • Loaned to Lower Tier There are a number of license types under the Chart View. For detailed information on those license types, see http://www.cisco.com/go/uclicensing.
Synchronize Now button	Synchronizes Enterprise License Manager with the product instances to obtain the most up-to-date licensing information for all license types in the system
License Usage details page **Note** Clicking on a license in the Table View in the License Usage page opens this License Usage details page	
License Description section	The License Description section provides a description of that license type. There is also a link provided to view descriptions of all license types on Cisco.com.
Usage Chart section	The Usage Chart section provides a graphical representation of how many of that particular license type are available, and of those, how many are installed or borrowed from the upper tier. It also indicates how many of that license type are being used, and of those, how many are required or loaned to the lower tier.
Usage by Instance section	The Usage by Instance section lists the systems that are using that particular license type, and identifies the product type of the system, release version, and the number of licenses required for each of those systems.
Installed Licenses by Type section	The Installed Licenses by Type section distinguishes between Permanent and Temporary licenses, the number of licenses that each is limited to, and the expiry date for the temporary licenses.

License Management view settings

The License Management view contains two pages that allow you to view licensing information and configure product licenses:

- Licenses page settings, on page 37
- License Planning page settings, on page 40

Licenses page settings

Setting	Description
Licenses page	
Enable button	Allows you to enable e-Fulfillment. This is the default state.
Disable button	Allows you to disable e-Fulfillment. If e-Fulfillment is disabled, by selecting the Disable button, only Manual Fulfillment options are visible.
Fulfill Licenses from PAK button (e-Fulfillment)	Opens the Fulfill Licenses from PAK wizard (e-Fulfillment)
Other Fulfillment options (e-Fulfillment)	Drop-down menu, visible when e-Fulfillment is enabled, that allows you to: • Fulfill Licenses from File • Generate License Request **Note** Both these options are the same as those available under Manual fulfillment. The Fulfill Licenses from File option opens the Install License File page. The Generate License Request option opens the License Request and Next Steps dialog box.
Fulfill Licenses from File button (Manual Fulfillment)	Opens the Install License File page
Other Fulfillment options (Manual Fulfillment)	Drop-down menu, visible when e-Fulfillment is disabled, that allows you to: • Generate License Request The Generate License Request opens the License Request and Next Steps dialog box
Fulfillment Date	Specifies the date of license fulfillment

Setting	Description
Description	The description, specified by the user in the wizard, of the license fulfillment
Method	Specifies the type of license fulfillment used (e-Fulfillment or File Install)
PAK	Specifies the PAK ID (in e-Fulfillment mode, the PAK IDs are clickable links that open the PAK detail window which allows you to adjust PAK fulfillment for that particular PAK)
Fulfill Licenses from PAK page	
Choose Method	From the Choose Method section of the Fulfill Licenses from PAK page, you can add licenses from: • A new PAK • An already-installed PAK that supports partial fulfillment (only PAKs that support partial fulfillment are displayed in the drop-down menu)
Review Contents	From the Review Contents section of the Fulfill Licenses from PAK page, you can review the contents of the PAK. If the PAK supports partial fulfillment, you can adjust the license installation counts.
License Options	From the License Options section of the Fulfill Licenses from PAK page, you can add a description to the transaction or associate it with a previously generated add or upgrade plan.
Install License File page	
Browse button	Allows you to select license file from your computer.
Install button	When the license file has been selected (using the Browse button), it appears in the License File field. The Install button is then used to install that license file.
License Request and Next Steps dialog box	
Copy the selected text	The first step in the License Request and Next Steps dialog box provides the following options: copy the text in the text box to your clipboard or click the link to save the license request file to your computer.
Register your Licenses	The second step instructs you to register your licenses by clicking the link provided.
Install your Licenses	The third step advises you to return to Enterprise License Manager and install your licenses once you have received them. License files are generally obtained via email or downloaded from the Cisco portal. Clicking the Install button returns you to the Licenses page.

Setting	Description
PAK Details page	
Adjust PAK Fulfillment option	Clicking the Adjust PAK Fulfillment link at the top of the PAK Details page retrieves the latest PAK details, changes the table from read-only to editable, and allows you to adjust the PAK fulfillment for Enterprise License Manager.
PAK Contents table	The PAK Contents table contains the following columns: • SKU Name - specifies the name of a license contained in the file • Type - specifies the license type (ex: Permanent, Time-limited) • Expiration - specifies the expiry date of time-limited licenses • Total in PAK - specifies the total number of that license type in the PAK If you select the Adjust PAK Fulfillment option, the following additional columns appear in the table: • Already Fulfilled • Available to Install • Install (editable) • Remaining Available
View <File ID> page	
File Details	The File Details section contains the following information: • File Name • Description • Installation Date • Associated Summary
File Contents	The File Contents section contains a Licence File Contents table that lists license files under the following categories: • Type • Product Scope • Count (the number of that particular license type) • Expiration date
Edit <File ID> page	

Setting	Description
Edit File Details	Clicking the Edit File Details button on the View <File ID> window opens the Edit File Details window, which contains the following information: • File Name • Description • Installation Date • Associated Summary (the license plan associated with this license file) The Description and Associated Summary fields can be edited.

License Planning page settings

Setting	Description
License Planning page	
Name	Specifies the name of the license plan Selecting a license plan name from the list in the History table opens the Details window for that license plan. This window contains the following information: • Name (editable) • Description (editable) • Type • Created Date • Summary (includes a View Summary link that provides summary information for that license plan)
Description	Provides a brief description of the license plan
Type	Specifies the license plan type
Creation Date	Specifies the license plan creation date
Action	The Action column provides a Delete button to delete a license plan
Create an Add Licenses Plan button	Clicking the Create an Add Licenses Plan button opens the Create an Add Licenses Plan wizard. For instructions on how to complete the Create an Add Licenses Plan wizard, see the Enterprise License Manager User Guide.

Setting	Description
Migrate Licenses to Enterprise License Manager button	Clicking the Migrate Licenses to Enterprise License Manager button opens the Migrate Licenses to Enterprise License Manager wizard. For instructions on how to complete the Migrate Licenses to Enterprise License Manager wizard, see the Enterprise License Manager User Guide.
Create an Add Licenses Plan page	
Choose Product section	From the Choose Product section of the Add Licenses window, you can select (from the drop-down menus) the Product Type and the Product Version to which you want to add licenses.
Specify License Counts section	From the Specify License Counts section of the Add Licenses window, you can adjust the number of licenses to be allocated to each type of license and save your changes for that license type. You may also choose to run a compliance check by clicking the Run Compliance Check button, or reset the license values by clicking the Reset Values button.
Summary and Next Steps section	From the Summary and Next Steps section of the Add Licenses window, you can view and save a summary of the changes you made in the Choose Product and Specify License Counts sections. The Save Summary in Enterprise License Manager option is selected by default. A default name for the summary also appears in the Name field using the format <productname>-add-<date-time-stamp> format.
Migrate Licenses to Enterprise License Manager page	
Choose Product Type	From the Choose Product Type section of the Migrate Licenses to Enterprise License Manager window, you can select the type of product to upgrade from the drop-down menu and the version number. The process overview steps that appear are specific to the product type you choose.
Choose Product Instances	From the Choose Product Instances section of the Migrate Licenses to Enterprise License Manager window, you can upgrade a product instance by selecting it in the Available Product Instances window and click the arrow to move it to the Product Instances to Migrate window. **Note** By default, only product instances containing license data from a previous version of Cisco Unified Communications Manager are displayed in the Available Product Instances table. If the product instance you upgraded does not appear in the list, click the “Show additional Unified CM product instances” check box. Selecting this check box adds to the list those product instances that contain no prior license data and those that were included in prior license migration requests.

Setting	Description
License Counts (Unified CM)	From the License Counts section of the Migrate Licenses to Enterprise License Manager window, you can view a summary of pre-upgrade product instance data. This table is cannot be edited. If you selected **Unified CM** as your product type, the following options appear: • Public Space Phones - An estimate of the number of public space phones. Public space phones do not have users assigned and are typically placed in shared workspaces, lobbies and meeting rooms. These phones generally require lower level licenses, so providing an estimate of the number of these phones in your deployment will help Cisco more accurately determine your license requirements. • Company Name (Optional) - You have the option of adding the customer name here for future reference • Case Numbers (Optional) - A case number assigned if the report was sent to Cisco Licensing Support • License Usage Reports - Allows you to upload a License Usage Reports from a local drive. • MAC addresses - The MAC addresses from the original servers that were upgraded. These MAC addresses can be used to look up the licenses that were registered on those product instances.
License Counts (Unity Connection)	The content of the License Counts section of the Migrate Licenses to Enterprise License Manager window depends entirely upon the options you have selected in previous sections. If you selected **Unity Connection**, the following options appear: • I have CUWL licenses to be migrated • I do not have CUWL licenses to be migrated

Setting	Description
Summary and Next Steps (Unified CM or Unity Connection > I have CUWL licenses to be migrated)	The content of the Summary and Next Steps section of the Migrate Licenses to Enterprise License Manager window depends entirely upon the options you have selected in previous sections. If you selected **Unified CM** as your product type, or **Unity Connection > I have CUWL licenses to be migrated**, the following options appear: In this section you must indicate how the upgrade was ordered: • Upgraded using one or more service contracts • Purchased the upgrade If you select Upgraded using one or more service contracts, enter the UCSS/ESW Contract Numbers. If you select Purchased the upgrade, enter the Sales Order Numbers. The **Cisco.com (CCO) User ID** field. Company Name and the field used to capture additional information are optional. However; if you enter the company name, it is used in the subject line of the email and is included in the name of the zip file. A default name for the summary also appears in the Name field using the format <productname>-migrate-<date-time-stamp> format. Instructions for placing your order and fulfilling your licenses also appear in this section. Click Finish & Generate Request. The License Migration Request and Next Steps window appears. Download the License Migration Request zip file to your PC. Email the License Migration Request to Cisco licensing support using the link provided. Click Close to return to the Add or Upgrade Licenses page.

Setting	Description
Summary and Next Steps (Unity Connection > I do not have CUWL licenses to be migrated)	The content of the Summary and Next Steps section of the Migrate Licenses to Enterprise License Manager window depends entirely upon the options you have selected in previous sections. If you selected **Unity Connection > I do not have CUWL licenses to be migrated**, the following options appear: In this section, you can view and save a summary of the changes you made. To view the summary, click View Summary. A default name for the summary also appears in the Name field using the format <productname>-migrate-<date-time-stamp> format. Instructions for placing your order and fulfilling your licenses also appear in this section. Click Finish & Generate Request. The License Migration Request and Next Steps window appears. Copy the selected text to your clipboard or click Save it to a file on your computer. Select License Migration Portal under Step 2 and paste the copied text in the designated field or select the saved file from your computer. Click Close to return to the Add or Upgrade Licenses page.
License Migration Request and Next Steps	Clicking the Finish & Generate Request button in the Summary and Next Steps section of the Upgrade Licenses window opens the License Migration Request and Next Steps dialog box. From this dialog box you can save the License Migration Request .zip file to your PC. Instructions for emailing your License Migration Request to Cisco and installing your licenses also appear in this section.

Inventory view settings

The Inventory view contains the Product Instances page, which allows you to view product license information. From this page, you can add, delete, and synchronize a product instance.

Setting	Description
Product Instances	
Name	Specifies the name of the product instance
Hostname/IP Address	Specifies the hostname or IP address of the product instance
Product Type	Specifies the type of product instance (Unified CM or Unity Connection)
Version	Specifies the product release of the product instance

Setting	Description
Synchronization Status	Specifies the status of the product instance synchronization (for example, “Success”, “Registration Conflict”, “Invalid Server Type”)
Last Successful Synchronization	Specifies the date and time of the last successful synchronization.
Add button	Clicking the Add button on the Product Instances page opens the Add Product Instance dialog box. From this dialog box, you can enter the following information: • Name • Description (optional) • Product Type • Hostname/IP Address • Username • Password **Note** Once you have added your new product instance, be sure to click the Synchronize Now button to extract current licensing information from the product. If you do not synchronize, current product instance information may not appear in Enterprise License Manager.
Test Connection button	From the Product Add dialog box, you can click the Test Connection button to test the connection to the product instance prior to adding it. If the connection cannot be established, either through the connection test or by clicking OK to add a product instance, you may receive one of the following error messages: • Instance Unreachable • Login Failed • Certificate Mismatch • Registration Conflict • Invalid Server Type • Product Type Mismatch • Duplicate Product Instance **Note** You may also skip the Test Connection button and click OK on the Add Product Instance dialog box.
Delete button	You can delete a product instance by selecting the check box next to the product instance and clicking Delete.

Setting	Description
Launch Admin GUI button	You can open the administration GUI for a particular product instance by selecting the check box next to the product instance and clicking Launch Admin GUI.
Synchronize Now button	Synchronizes Enterprise License Manager with the product instances to obtain the most up-to-date licensing information for all license types in the system
Product Instance details page **Note** Clicking on a product instance in the Product Instance table opens the following details page	
General tab	The General tab is divided into two sections: • Product Information • Administrator Account The Product Information section contains the following information: • Name • Description • Hostname/IP Address • Product Type • Product Version The Administrator Account section contains the following information: • Username • Password Clicking the Save button saves your changes. **Note** Prior to clicking the Save button, you have the option of clicking the Test Connection button to ensure that the connection is established.
License Usage tab	The License Usage tab contains a graphical representation of the license requests and a table illustrating the number of licenses requested by license type.

Administration view settings

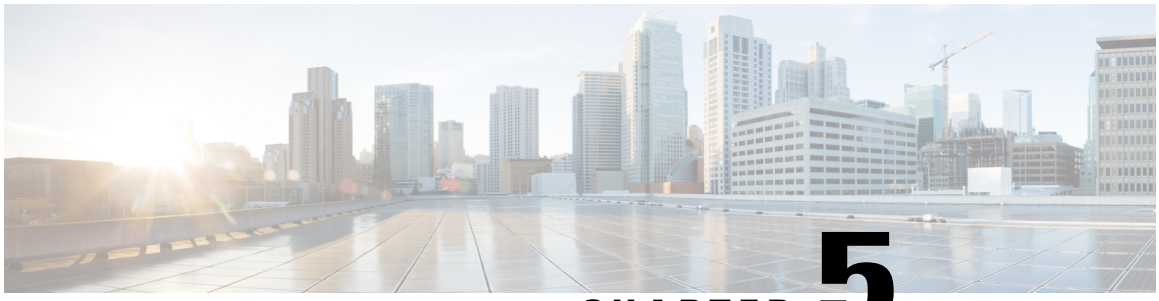
The Administration view allows you to configure the following Enterprise License Manager settings:

- Administrator Accounts

- OS Administration
- Disaster Recovery
- Diagnostic Logs
- Restart

Setting	Description
Administrator Accounts	
Add Administrator button	Selecting the Add Administrator button in the Administrator Accounts window opens the Add Administrator Account window. From this window, you can add an administrator. You are prompted for the following information: • User ID • Password • Re-enter Password
Change Password	Selecting the Change Password link in the Administrators table opens the Change Password page. From this page you can change the password of an existing administrator account. You are prompted for the following information: • New Password • Re-enter New Password
Edit <User ID>	Selecting the user ID of an existing administrator account in the Administrator Accounts Window opens an Edit <User ID> page. From this page you can edit the Name/Description of an administrator account.
OS Administration	
OS Administration	The OS Administration page contains a link to the Cisco Unified OS Administration utility. Clicking this link opens the utility in a new window. **Note** The Cisco Unified OS Administration utility is common to Unified CM, Unity Connection, and Enterprise License Manager. It is not unique to Enterprise License Manager.
Disaster Recovery	

Setting	Description
Disaster Recovery	The Disaster Recovery page contains a link to the Cisco Disaster Recovery Service utility. Clicking this link opens the utility in a new window. **Note** The Cisco Disaster Recovery Service utility is common to Unified CM, Unity Connection, and Enterprise License Manager. It is not unique to Enterprise License Manager. For documentation on the Cisco Disaster Recovery Service utility, see the following: • Unified CM: http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html • Unity Connection: http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/drs_administration/guide/8xcucdrsag.html
Diagnostic Logs	
Log Settings tab	The Log Settings tab lists the diagnostics categories and log levels. The Log Level drop-down list for each diagnostic category can be set to one of the following: • Error • Warning • Info • Debug Once the log level has been set for each diagnostic category, you can save your changes by clicking the Save button. You may also opt to reset your log settings by clicking the Reset button.
Download Logs tab	The Download Logs tab allows you to generate a log file, using the date and time range of your choice to include in the log file. The default range is from 12 AM of the current day until the current time. You can then generate the file by clicking the Generate Log File button. The log file is generated and downloaded to your computer.
Restart	
Restart	The Restart button restarts all Enterprise License Manager services.



CHAPTER 5

Troubleshooting

If an issue occurs with Enterprise License Manager, an error messages appears. The following status messages may display when there is an issue:

- Unknown username and password for Enterprise License Manager login , page 49
- Configuration changes are not appearing in Enterprise License Manager, page 50
- The following error message appears: “The cause of the error is unknown”, page 50
- Product instance was modified, but changes are not reflected in license usage data, page 50
- Product instance was deleted, but is still showing up in license usage data, page 51
- Product instance is not showing up in license usage data, page 51
- Product instance data in administration GUI does not match data Product Instances view in Enterprise License Manager, page 51
- Overage alerts are not appearing when Enterprise License Manager goes into overage, page 52
- Enterprise License Manager does not indicate a product overage, page 52
- Licenses are missing following restoration of Enterprise License Manager on a different server, page 52
- Cannot bring system into compliance using the Upgrade Licenses wizard, page 53

Unknown username and password for Enterprise License Manager login

Description

I do not know the username and password of the system when it was originally installed, so I cannot log into Enterprise License Manager.

Resolution

Log into the platform CLI with the OS administration credentials and use the *license management list users* command to view the username to use for signing into the Enterprise License Manager application. If you are not sure what the password is for this username, you can use the *license management change user password* command to change this password.

Configuration changes are not appearing in Enterprise License Manager

Description

I made a configuration change in my products, but I am not seeing a change in the requested licenses reflected in Enterprise License Manager.

Resolution

Enterprise License Manager synchronizes products every 24 hours. If you wish to see the latest configuration changes, choose **Inventory > Product Instances** and click **Synchronize Now**.

The following error message appears: “The cause of the error is unknown”

Description

I received the following error message: “The cause of the error is unknown”.

Resolution

Check the Enterprise License Manager log for details. If the cause of the error is not easily identifiable from these details, please open a Service Request using the TAC Service Request Tool, http://tools.cisco.com/ServiceRequestTool/create/DefineProblem.do, or send an email to licensing@cisco.com. Please have your valid Cisco.com user Id and password available. As an alternative, you may also call our main Technical Assistance Center at 800-553-2447.

Product instance was modified, but changes are not reflected in license usage data

Description

I modified the configuration of a product instance, but I do not see it reflected in the license usage data in Monitoring > Dashboard and Monitoring > License Usage.

Resolution

When a product instance is added to the Enterprise License Manager, usage data is not available until the Enterprise License Manager synchronizes with the product instance. Synchronization happens once every 24 hours, or can be manually requested from Monitoring > License Usage using the Synchronize Now button.

Product instance was deleted, but is still showing up in license usage data

Description

I deleted a product instance, but I do not see it reflected in the license usage data in Monitoring > Dashboard and Monitoring > License Usage.

Resolution

When a product instance is deleted from Enterprise License Manager, usage data is not available until the Enterprise License Manager synchronizes with the product instance. Synchronization happens once every 24 hours, or can be manually requested from Monitoring > License Usage using the Synchronize Now button.

Product instance is not showing up in license usage data

Description

I added a product instance, but I do not see it reflected in the license usage data in Monitoring > Dashboard and Monitoring > License Usage.

Resolution

When a product instance is added to the Enterprise License Manager, usage data is not available until the Enterprise License Manager synchronizes with the product instance. Synchronization happens once every 24 hours, or can be manually requested from Monitoring > License Usage using the Synchronize Now button.

Product instance data in administration GUI does not match data Product Instances view in Enterprise License Manager

Description

The data I see for a product instance in the administration GUI for that product (for example, when I select Inventory > Product Instances > Launch Admin GUI) does not match what I see when I select the same product instance in Inventory > Product Instances.

Resolution

Changes in the configuration of a product instance are not seen in the Enterprise License Manager until the next synchronization following the configuration change. Synchronization happens once every 24 hours, or can be manually requested from Monitoring > License Usage using the Synchronize Now button.

Overage alerts are not appearing when Enterprise License Manager goes into overage

Description

I am not receiving any alerts when my Enterprise License Manager goes into overage.

Resolution

Overage alerts are generated by the product instances, not by Enterprise License Manager. Ensure that the product supports overage alerting. If a product supports overage alerting, it must be configured in the GUI for that product. For example, the administration interface in Unified CM allows you to specify which conditions are alerted and in what manner. Therefore, if you are not seeing overage alerts for Unified CM, you should verify that overage alerts are configured in Unified CM. If not, the alerts will be visible in the administration interface, but you will not receive those alerts via the mechanism you have selected (for example, email, SNMP, syslog).

Enterprise License Manager does not indicate a product overage

Description

My product says it is in overage, but my Enterprise License Manager does not show overage.

Resolution

If a product instance is unable to synchronize with its Enterprise License Manager, it goes into overage because it is unable to confirm that there are licenses available. Please check the last synchronization date for the product instance under Inventory > Product Instances. If synchronization is not occurring, verify that the credentials in the Enterprise License Manager for the product instance are accurate and that there is network connectivity between your Enterprise License Manager and the product instance.

Licenses are missing following restoration of Enterprise License Manager on a different server

Description

I have restored my Enterprise License Manager on a different server and I do not have any licenses.

Resolution

When you move your Enterprise License Manager to a different physical or virtual server, your licenses need to be rehosted to the new server and reinstalled. Please open a Service Request using the TAC Service Request Tool, http://tools.cisco.com/ServiceRequestTool/create/DefineProblem.do, or send an email to licensing@cisco.com for next steps. Please have your valid Cisco.com user Id and password available. As an alternative, you may also call our main Technical Assistance Center at 800-553-2447.

Cannot bring system into compliance using the Upgrade Licenses wizard

Description

In the License Management > License Planning > Upgrade Licenses wizard, I am unable to bring the system into compliance.

Resolution

If, across all the product instances managed by your Enterprise License Manager, you are using more licenses than are already installed combined with those available from the product instances you are upgrading, you will not have sufficient licenses to upgrade to bring your Enterprise License Manager into compliance. You will need to purchase additional licenses to cover your needs, or reduce the number of licenses required by your product instances by changing their configuration.