Enterprise License Manager User Guide

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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.
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.

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/ucsrd.

Supported Products

Enterprise License Manager supports the following products:

- Cisco Unified Communications Manager
- Cisco Unity Connection
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.
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>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move to the next field</td>
<td>Tab</td>
</tr>
<tr>
<td>Move to the previous field</td>
<td>Alt-Tab</td>
</tr>
<tr>
<td>Select an option</td>
<td>Space bar or Enter</td>
</tr>
<tr>
<td>Scroll up or down in a list</td>
<td>Up or down arrow</td>
</tr>
<tr>
<td>Go to the previous window</td>
<td>Space bar or Enter</td>
</tr>
<tr>
<td>Get help information on a window</td>
<td>Space bar or Enter to select Help (when available)</td>
</tr>
</tbody>
</table>
# 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 stratum 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
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 upgrade (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.

Step 4
Select option 1 to download upgrade file.

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

Step 6
Enter yes to start installation.

Upgrade From Remote Source

Before You Begin

You need to place the ISO on a network location or remote drive that is accessible from Cisco Prime License Manager prior to starting this procedure.
Procedure

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

Example:
```
utils system upgrade initiate
```
The following options appear:

• Warning: Do not close this window without first canceling the upgrade.
• 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.

• Please select an option (1 - 3 or "q"): 1
• Directory: /auto/ipcbu-builds2-published/ELM/10.0.0.98030-1
• Server: se032c-94-61
• User Name: bsmith
• Password: ********
• Checking for valid upgrades. Please wait...

Step 4 Enter SMTP Host Server (optional) to receive email notification once upgrade is complete. The following options appear:

• Available options and upgrades in "se032c-94-61:/auto/ipcbu-builds2-published/ELM/10.0.0.98030-1":
• 1) CiscoPrimeLM_64bitLnx_10.0.0.98030-1.sgn.iso
• q) quit

Step 5 Select option 1 to download upgrade file. The following messages appear:

• Accessing the file. Please wait...
• Validating the file...
• Downloaded 935 MB.
• Checksumming 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: CiscoPrimeLM_64bitLnx_10.0.0.98030-1.sgn.iso
• File version: 10.0.0.98030-1

Step 6 Enter No when asked to automatically switch versions if the upgrade is successful.
Automatically switch versions if the upgrade is successful (yes/no): no

Step 7 Enter Yes to start installation.
Start installation (yes/no): yes

License Management 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.

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 path.

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

The following sections provide information on using Enterprise License Manager.

- Enterprise License Manager Considerations, page 15
- Log In to Enterprise License Manager, page 16
- Add Product Instance, page 16
- Edit Product Instance, page 17
- Delete Product Instance, page 17
- System Status Information, page 18
- Dashboard View, page 18
- License Usage View, page 19
- License Fulfillment, page 20
- Migrate Licenses Using Upgrade Licenses Wizard, page 21
- Use the Add Licenses Wizard to Determine New Licensing Requirements, page 22
- Generate License Request, page 22
- Install License, page 23

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, on page 21.

• 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 22.

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 39.

Add Product Instance

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

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
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, on page 21.

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. For example, CUWL Professional, the highest Unified CM-tiered type, offers more functionality than CUWL Premium or Advanced (the exact functionality is specified in the License Usage Details screen). 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.

Once you have identified your specific licensing needs, choose from one of the following:
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 Upgrade Licenses Wizard

Use the following procedure to plan for migration from pre-9.0 licensing to 9.0 user-based licensing.

**Procedure**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td>From the License Management &gt; License Planning page in Enterprise License Manager, click the Migrate License to Enterprise License Manager button.</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>The Upgrade Licenses 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. Click Next.</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td>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 Upgrade window. Click Next. The only products that appear in the Available Product Instances table are those that have been upgraded from a previous release and have not yet had their licenses migrated.</td>
</tr>
<tr>
<td><strong>Step 4</strong></td>
<td>The Specify License Counts section appears. Select the appropriate Recommendation Mode from the drop-down list to view the recommended license counts as either User Connect Licenses (UCL) or Cisco Unified Workshop Licenses (CUWL).</td>
</tr>
<tr>
<td><strong>Step 5</strong></td>
<td>In the License Allocation table, edit the Adjust Recommended Count column and click Save to save your change 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 all license count values have been updated, click Next. Clicking the arrow next to each license type reveals additional information on that license type.</td>
</tr>
<tr>
<td><strong>Caution</strong></td>
<td>The upgrade process can be completed only once per Unified CM product instance. You will not be able to upgrade any remaining DLUs on the selected product instances in the future.</td>
</tr>
<tr>
<td><strong>Step 6</strong></td>
<td>The Summary and Next Steps section appears. 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 &lt;productname&gt;-add-&lt;date-time-stamp&gt; format. Instructions for placing your order and fulfilling your licenses also appear in this section. Click Finish &amp; Generate Request</td>
</tr>
<tr>
<td><strong>Step 7</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Step 8</strong></td>
<td>Select License Migration Portal under Step 2 and paste the copied text in the designated field or select the saved file from your computer.</td>
</tr>
<tr>
<td><strong>Step 9</strong></td>
<td>Click Close to return to the License Planning page</td>
</tr>
<tr>
<td><strong>Step 10</strong></td>
<td>The license migration plan now appears in the table on the License Planning page.</td>
</tr>
</tbody>
</table>
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 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 23 procedure.

Install License

Before You Begin

Once you have obtained your license using the Migrate Licenses Using Upgrade Licenses Wizard, on page 21 procedure or the Generate License Request, on page 22 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 indicating that the installation was successful. Click Close to return to the Licenses page.
About Window

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>About</td>
<td>The About dialog box contains the Enterprise License Manager version number and Registration ID number.</td>
</tr>
</tbody>
</table>

**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 26
- License Usage Page Settings, on page 27

Dashboard Settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overview section</strong></td>
<td></td>
</tr>
<tr>
<td>Product Instances</td>
<td>The total number of product instances managed by Enterprise License Manager. Clicking Product Instances takes you to the Inventory &gt; Product Instances page.</td>
</tr>
<tr>
<td>Last License Update</td>
<td>The date of the last license update. Clicking Last License Update takes you to the License Management &gt; Licenses page.</td>
</tr>
<tr>
<td>Last Synchronization</td>
<td>The date of the last successful synchronization. Clicking Last Synchronization takes you to the Inventory &gt; 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.</td>
</tr>
<tr>
<td><strong>License Alerts section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>License types that are non-compliant</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td>Provides information about the alert (for example, insufficient licenses or when a license is due to expire)</td>
</tr>
<tr>
<td><strong>License Usage section</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Specifies the product type</td>
</tr>
<tr>
<td><strong>Required</strong></td>
<td>The number of licenses allocated to each of those product types</td>
</tr>
<tr>
<td><strong>Synchronization Failures section</strong></td>
<td></td>
</tr>
</tbody>
</table>
### 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.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The name of the system upon which the synchronization was attempted and failed</td>
</tr>
<tr>
<td>Failure Reason</td>
<td>Identifies the reason the synchronization failed</td>
</tr>
<tr>
<td>Last Success</td>
<td>The date and time of the last successful synchronization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table View</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>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.</td>
</tr>
<tr>
<td>Product Scope</td>
<td>The product type</td>
</tr>
<tr>
<td>Required</td>
<td>The number of licenses required by the product instances in order to deliver the services you have provisioned on those servers.</td>
</tr>
<tr>
<td>Installed</td>
<td>The number of licenses currently installed</td>
</tr>
<tr>
<td>Unused</td>
<td>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.</td>
</tr>
<tr>
<td>Status</td>
<td>The license status (ex: “Temp Licenses Nearing Expiration”, “In Compliance”)</td>
</tr>
</tbody>
</table>
### 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

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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](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 29
- License Planning Page Settings, on page 30

Licenses Page Settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licenses page</td>
<td></td>
</tr>
<tr>
<td>Filename</td>
<td>Specifies the filenames of installed licenses</td>
</tr>
<tr>
<td>Note</td>
<td>The most recently installed license file is the active license file. The active license file contains the word &quot;Active&quot; at the end of the filename.</td>
</tr>
<tr>
<td>Description</td>
<td>Describes each of the installed licenses</td>
</tr>
<tr>
<td>Installation Date</td>
<td>Specifies the date licenses were installed</td>
</tr>
<tr>
<td>Install License File button</td>
<td>Opens the Install License File page</td>
</tr>
<tr>
<td>Generate License Request button</td>
<td>Opens the License Request and Next Steps dialog box</td>
</tr>
</tbody>
</table>

Install License File page

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browse button</td>
<td>Allows you to select license file from your computer.</td>
</tr>
<tr>
<td>Install button</td>
<td>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.</td>
</tr>
</tbody>
</table>

License Request and Next Steps dialog box

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copy the selected text</td>
<td>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.</td>
</tr>
<tr>
<td>Register your Licenses</td>
<td>The second step instructs you to register your licenses by clicking the link provided.</td>
</tr>
</tbody>
</table>
## Installation Step 3

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.

### 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

**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

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>License Planning page</td>
<td>Clicking the Edit File Details button on the View &lt;File ID&gt; window opens the Edit File Details window, which contains the following information:</td>
</tr>
</tbody>
</table>

- File Name
- Description
- Installation Date
- Associated Summary (the license plan associated with this license file)

The Description and Associated Summary fields can be edited.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>• Name (editable)</td>
</tr>
<tr>
<td></td>
<td>• Description (editable)</td>
</tr>
<tr>
<td></td>
<td>• Type</td>
</tr>
<tr>
<td></td>
<td>• Created Date</td>
</tr>
<tr>
<td></td>
<td>• Summary (includes a View Summary link that provides summary information for that license plan)</td>
</tr>
<tr>
<td>Description</td>
<td>Provides a brief description of the license plan</td>
</tr>
<tr>
<td>Type</td>
<td>Specifies the license plan type</td>
</tr>
<tr>
<td>Creation Date</td>
<td>Specifies the license plan creation date</td>
</tr>
<tr>
<td>Action</td>
<td>The Action column provides a Delete button to delete a license plan</td>
</tr>
<tr>
<td>Add Licenses button</td>
<td>Clicking the Add License button opens the Add License wizard. For instructions on how to complete the Add License wizard, see the Enterprise License Manager User Guide.</td>
</tr>
<tr>
<td>Upgrade Licenses button</td>
<td>Clicking the Upgrade Licenses button opens the Upgrade Licenses wizard. For instructions on how to complete the Upgrade Licenses wizard, see the Enterprise License Manager User Guide.</td>
</tr>
</tbody>
</table>

**Add Licenses page**

<table>
<thead>
<tr>
<th>Choose Product section</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specify License Counts section</td>
<td>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.</td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Summary and Next Steps section</td>
<td>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 &lt;productname&gt;-add-&lt;date-time-stamp&gt; format.</td>
</tr>
<tr>
<td>Upgrade Licenses page</td>
<td></td>
</tr>
<tr>
<td>Choose Product Type</td>
<td>From the Choose Product Type section of the Upgrade Licenses window, you can select the type of product to upgrade from the drop-down menu.</td>
</tr>
<tr>
<td>Choose Product Instances</td>
<td>From the Choose Product Instances section of the Upgrade Licenses 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 Upgrade window.</td>
</tr>
<tr>
<td>Specify License Counts</td>
<td>From the Specify License Counts section of the Upgrade Licenses window, you can edit the license count in the Updated License Count 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.</td>
</tr>
<tr>
<td>Summary and Next Steps</td>
<td>From the Summary and Next Steps section of the Upgrade Licenses window, you can view and save a summary of the changes you made. A default name for the summary also appears in the Name field using the format &lt;productname&gt;-migrate-&lt;date-time-stamp&gt; format. Instructions for placing your order and fulfilling your licenses also appear in this section. The Finish &amp; Generate Request button completes the process and closes the Upgrade Licenses wizard.</td>
</tr>
<tr>
<td>License Migration Request and Next Steps</td>
<td>Clicking the Finish &amp; 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.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Instances</strong></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Specifies the name of the product instance</td>
</tr>
<tr>
<td>Hostname/IP Address</td>
<td>Specifies the hostname or IP address of the product instance</td>
</tr>
<tr>
<td>Product Type</td>
<td>Specifies the type of product instance (Unified CM or Unity Connection)</td>
</tr>
<tr>
<td>Version</td>
<td>Specifies the product release of the product instance</td>
</tr>
<tr>
<td>Synchronization Status</td>
<td>Specifies the status of the product instance synchronization (for example,</td>
</tr>
<tr>
<td></td>
<td>&quot;Success&quot;, &quot;Registration Conflict&quot;, &quot;Invalid Server Type&quot;)</td>
</tr>
<tr>
<td>Last Successful Synchronization</td>
<td>Specifies the date and time of the last successful synchronization.</td>
</tr>
<tr>
<td>Add button</td>
<td>Clicking the Add button on the Product Instances page opens the Add Product</td>
</tr>
<tr>
<td></td>
<td>Instance dialog box. From this dialog box, you can enter the following</td>
</tr>
<tr>
<td></td>
<td>information:</td>
</tr>
<tr>
<td></td>
<td>• Name</td>
</tr>
<tr>
<td></td>
<td>• Description (optional)</td>
</tr>
<tr>
<td></td>
<td>• Product Type</td>
</tr>
<tr>
<td></td>
<td>• Hostname/IP Address</td>
</tr>
<tr>
<td></td>
<td>• Username</td>
</tr>
<tr>
<td></td>
<td>• Password</td>
</tr>
</tbody>
</table>

**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.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
</table>
| 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.                                                                                       |
| 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
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.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General tab</td>
<td>The General tab is divided into two sections:</td>
</tr>
<tr>
<td></td>
<td>- Product Information</td>
</tr>
<tr>
<td></td>
<td>- Administrator Account</td>
</tr>
<tr>
<td>License Usage tab</td>
<td>The License Usage tab contains a graphical representation of the license</td>
</tr>
<tr>
<td></td>
<td>requests and a table illustrating the number of licenses requested by license</td>
</tr>
<tr>
<td></td>
<td>type.</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator Accounts</td>
<td></td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
</tr>
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</tr>
</tbody>
</table>
| 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**

<table>
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<th>Setting</th>
<th>Description</th>
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</table>
| 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**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
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</table>
| 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:  
### Diagnostic Logs

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
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</table>
| 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                  | The Restart button restarts all Enterprise License Manager services. |
Troubleshooting

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

- Unknown Username and Password for Enterprise License Manager Login, page 39
- Configuration Changes Are Not Appearing in Enterprise License Manager, page 40
- The Following Error Message Appears: “The Cause of the Error Is Unknown”, page 40
- Product Instance Was Modified, but Changes Are Not Reflected in License Usage Data, page 40
- Product Instance Was Deleted, but Is Still Showing Up in License Usage Data, page 41
- Product Instance Is Not Showing Up in License Usage Data, page 41
- Product Instance Data in Administration GUI Does Not Match Data Product Instances View in Enterprise License Manager, page 41
- Overage Alerts Are Not Appearing When Enterprise License Manager Goes Into Overage, page 42
- Enterprise License Manager Does Not Indicate a Product Overage, page 42
- Licenses Are Missing Following Restoration of Enterprise License Manager on a Different Server, page 42
- Cannot Bring System Into Compliance Using the Upgrade Licenses Wizard, page 43

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](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.
Cannot Bring System Into Compliance Using the Upgrade Licenses Wizard