



## Getting Started

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This section discusses first-time setup and provides an overview of recommended steps to quickly add users and devices and obtain and deploy licenses.

1. [Before You Begin, page 3-1](#)
2. [Logging In, page 3-5](#)
3. [Creating and Managing User Profiles, page 3-6](#)
4. [Discovering Devices Using the GUI, page 3-7](#)
5. [Updating Device Information, page 3-9](#)
6. [Adding a PAK to an Existing Folder, page 3-10](#)
7. [Retrieving PAK Information, page 3-11](#)
8. [Obtaining a License by Selecting Devices, page 3-12](#)
9. [Deploying Licenses from Your Device, page 3-14](#)

Use the following sequence of tasks to walk through how to use Cisco License Manager. This is a quick-start section designed to allow you to add a device quickly and deploy it. If you want to plan and set up your device and PAK folders first, see the online help for details on how to perform those steps.

## Before You Begin

Before you use Cisco License Manager to acquire, deploy, and centrally track and manage your Cisco licenses, you should:

1. Ensure that the Cisco License Manager hostname exists in the Domain Name Service (DNS) or that the device has the Cisco License Manager hostname and IP address configured to receive messages in order for device notification to work successfully.
2. Register on Cisco.com. This enables Cisco.com to authenticate you before providing you with a license.
3. Ensure that your e-mail ID and password are correct in your user profile. This information is used to receive e-mail from Cisco.com. See [Adding Admin User Information, page 3-6](#) for detailed instructions.
4. Configure your Cisco devices to allow Cisco License Manager to manage Cisco licenses using the **ip http server**, **license agent listener**, and **ip http authentication** CLI commands. For a summary of these commands, see [Configuring Your Cisco Device to Authenticate Cisco License Manager, page 3-4](#). For detailed documentation on how to enable the Cisco License Agent on your device, see your Cisco IOS or Catalyst device documentation.

5. Set up Cisco License Manager devices and device management by:
  - Adding devices to Cisco License Manager manually or using the user interface
  - Importing devices from a file
  - Discovering devices using the Cisco License Manager user interface

This section will use discovery as the method for adding devices. For details on other ways to add devices to Cisco License Manager, see the online help.

6. (Optional) Set up your own device groupings to make management easier

## Getting Started Flowcharts

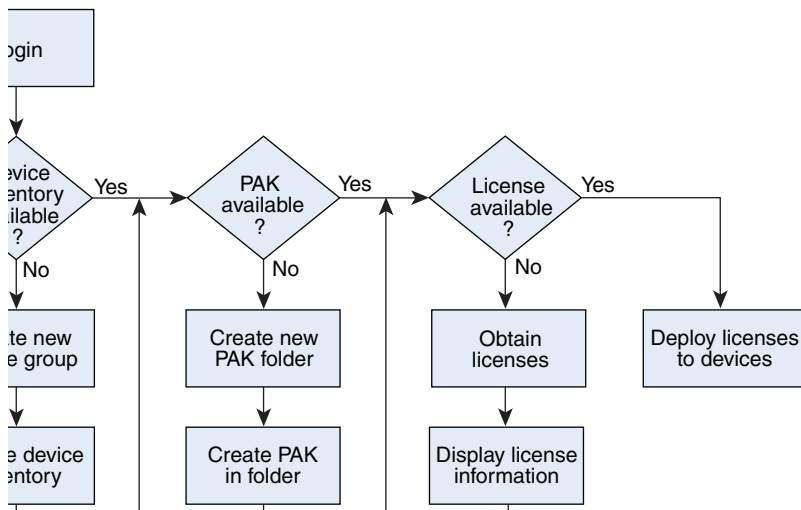
There are many features that make Cisco License Manager an easy tool to plan and manage your licenses. These take time and planning. If you plan to use all the features, see [Figure 3-2 on page 3-3](#) for a easy flowchart that includes creating customized group and device folder names.

If you prefer to skip some optional steps so that you can more quickly use the product, see [Figure 3-1 on page 3-2](#). If you follow this flowchart, you will not be able to customize group or folder names.

**Figure 3-1**      **Quick Start Flowchart**

To find out how to get started, see the flowchart in [Figure 3-2 on page 3-3](#). This flowchart allows you to use all the features of Cisco License Manager.

Figure 3-2 Getting Started Flowchart



## Configuring Your Cisco Device to Authenticate Cisco License Manager

There are several steps you need to take in order for your device to recognize Cisco License Manager and authenticate with your device.

1. Configure the device to always use HTTP to authenticate incoming requests using the **ip http server** command. This is to enable the HTTP server on the Cisco IOS software, which is required by the License Agent.
2. Configure the License Agent using the **license agent listener http plaintext /lic-agent authenticate** command. (See [Configuring Your Device License Agent, page 3-4.](#))
3. Specify a particular authentication method for the HTTP server to use using the **ip http authentication** command.

For in-depth details on these commands, see your Cisco IOS software documentation. For a description of the authentication methods, see [Authentication Methods, page 3-4.](#)

### Configuring Your Device License Agent

To help you get your device license agent configured, enter the following at the command line:

```
license agent notify http://userpc01:80/clm/servlet/notify_URL_in_propsfile user password
```

The URL should correspond with what is setup in the target Cisco License Manager server. You can copy the value from NOTIFY\_URL in the clm.properties file.

### Authentication Methods

The three methods with which you can authenticate your Cisco devices are:

- Enable password (enable)
- Local username and password (local)
- Authentication, authorization, and accounting (AAA) network security services (aaa)

The **ip http authentication** command enables you to specify a particular authentication method for HTTP server users. The HTTP server uses the enable password method to authenticate a user at privilege level 15. Using the ip http authentication command you can specify enable, local, or authentication, authorization, and accounting (AAA) HTTP server user authentication.

For example:

```
ip http authentication ?
```

where ? is one of the following:

aaa—Use AAA access control methods.

enable—Use enable passwords.

local—Use local username and passwords.

The corresponding username and password pairs that you configure on router are used during device creation or discovery in Cisco License Manager and the information is placed into the inventory. You can also add additional usernames and passwords in the Edit Password List window when you use the Discover Device feature.

# Logging In

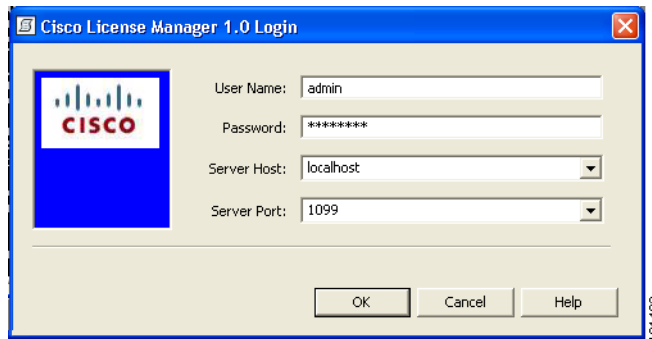
You will need to log into Cisco License Manager to ensure that your profile is updated and complete.

After the installation setup, only the admin user can log into Cisco License Manager using the reserved username admin and the password specified during setup. When you create other logins, you allow others to use all features.

To set up access for other users, see [Adding, Deleting, or Editing User Information, page 3-7](#). The GUI supports up to 20 simultaneous users. Cisco License Manager times out after five minutes.

- Step 1** To log into the GUI, use the method you selected during installation. For example, click the Cisco License Manager Client icon on your desktop or select the Cisco License Manager Server.exe or Cisco License Manager Client.exe file.
- Step 2** The Login window appears (see [Figure 3-3 on page 3-5](#)).

**Figure 3-3 Cisco License Manager Login Window**



- Step 3** Enter information for the following and click **OK**.

Field	Information to Enter
User ID	User's ID.
Password	Password for user.
Server Host	IP address or fully qualified name of server. Can be left blank if client is working from server host. Default is localhost.
Server Port	Port where software can be accessed. Can be left blank if client is working from server host. Port default is set to 1099. Port is set during setup.

The GUI appears.

To set up the administrator's profile or access for other users, see [Creating and Managing User Profiles, page 3-6](#). Up to 20 simultaneous users are supported by the user interface. Cisco License Manager times out after a five minute period.

## Creating and Managing User Profiles

The default user (admin) is created during the installation setup. Only the admin user can add other users. The admin user and any other users that are added have all privileges. The admin user cannot be deleted. A tiered level of authorization will be available in a future release.

Before you can receive license information, you must register and have a valid Cisco.com user ID. Each user *must* add their Cisco.com user ID and password, as well as their e-mail address, to their user profile for Cisco License Manager to work properly.

The user management portion of Cisco License Manager controls the authentication and authorization of its functions.

This section covers:

- [Adding Admin User Information, page 3-6](#)
- [Adding, Deleting, or Editing User Information, page 3-7](#)

### Adding Admin User Information

Before the admin user (or any user) can receive a license key file from Cisco.com, you must add the required information into your user profile.

- 
- Step 1** Select **Tools > User Manager** or click the User Manager icon in the toolbar.
- Step 2** Select the admin user and click **Edit**.
- Step 3** In the Edit User Information window that appears, enter the following information and click **OK**.

Field	Information to Enter
First Name	User's first name (optional)
Last Name	User's last name (optional)
Company Name	User's company name (optional)
E-Mail Address	Valid e-mail address used for Cisco.com access
Notification by E-Mail	Allow e-mail from Cisco License Manager to user's e-mail (optional)
Cisco Username	Valid Cisco.com user ID
Cisco Password	Cisco user password
Confirm Cisco Password	Confirm Cisco user password

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## Adding, Deleting, or Editing User Information

The admin user can create new user accounts and delete users using the User Manager. Individual users can modify their own user information. Administrators can edit the admin password using **Edit**.



**Note** Only the admin user can add and delete users.

**Step 1** Select **Tools > User Manager**.

**Step 2** From the User Manager window, you can do the following:

Task	Procedure
Add users	Click <b>Add</b> . Enter the required information. <sup>1</sup>
Delete users	Select a user ID and click <b>Delete</b> .
Edit users	Select a user ID and click <b>Edit</b> . Update information as necessary.

1. The default password for new users is *password*.

For valid characters and guidelines for entering data, see the online help.

## Discovering Devices Using the GUI

You can discover devices in a specific network using the GUI. You can also create a new device group and collect license information on those devices during the same discovery process. No other discover operations are allowed if one is already in progress.

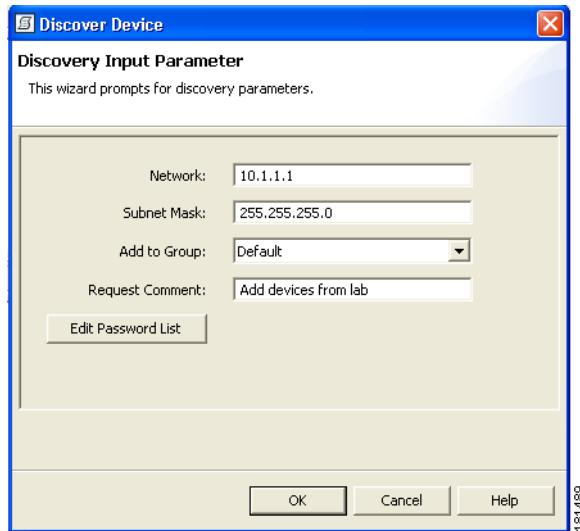
When you add a device using the IP address, the UDI and Device ID parameters are automatically added into the database.

If you want to add a device manually, see the online help for detailed instructions.

**Step 1** Select **Action > Discover Device**.

**Step 2** The Discover Device window appears (see [Figure 3-4 on page 3-8](#)).

Figure 3-4 Discover Device Window



**Step 3** Enter the following information.

Field	Description
Network	The IP address of the network on which you want to discover devices. For example, 172.0.0.0.
Subnet Mask	Defines which portion of the address is used to identify the network and which denotes the hosts.
Add to Group	List of existing device groups in which to add your devices. Newly discovered devices appear in the Default group unless you create a new device group before you discover devices. For more information about creating device groups, see the online help.
Request Comment	Tracking comment for data request.
Edit Password List	User/password pairs for accessing the device in the sub-network (see <a href="#">Editing the Password List</a> , page 3-9 for details).

**Step 4** Click **OK**.

The device inventory updates with the list of discovered devices. The device status appears in the Alert View pane. For details, see [Status and Log View Pane](#), page 1-5 or the online help.



**Note** The discovery operation retrieves devices sequentially.

**Step 5** Repeat steps until all devices are discovered.



## Editing the Password List

Devices are password-protected and require authentication in order to access device information. Depending on the authentication method that is set up on the device, the username and password required in this window are different.

For example:

- If the device is set up to use **enable password** to authenticate an http request, then you can leave the username empty and enter the enable password.
- If the device is set up to use AAA, then enter the AAA username/password.
- If the device is set up to use the local username/password for authentication, then enter the local username/password.



### Note

If the local username/password is set up on the device, your user privilege must be at least 15. For example, "username xxx privilege 15 password yyy."

The Edit Password List window enables you to set up specific users to access device information and update licenses from Cisco License Manager.

Enter the appropriate values:

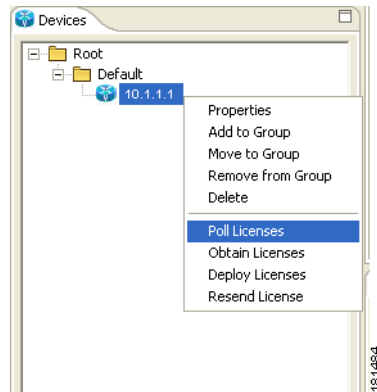
Field	Description
Device User Name	Enter your User ID based on which authentication method is on your device.
Password	Enter your user password.
Reenter Password	Confirm your user password.

## Updating Device Information

To synchronize the information in the device inventory with the device, you need to poll the device for license information. To read more about how device polling occurs, see the online help.

- 
- Step 1** Select the device in the Devices selector pane (see [Figure 3-5](#)).

Figure 3-5 Devices Selector Pane



**Step 2** Right-click on **Poll Licenses**.

A confirmation window appears. If you get errors, check to ensure that your device's UDI and IP address is entered correctly.

**Step 3** Click **Yes**.

Status messages for device polling appear in the View pane in the Server Request Status tab. For information on the Server Request Status tab, see [Server Request Status View](#), page 1-11.

## Adding a PAK to an Existing Folder

To deploy a license to a device, you must provide a valid PAK so that a license can be obtained from Cisco.com for this device.

Use this procedure to add a PAK into Cisco License Manager. To create a new PAK folder, see the online help.



**Tip**

Before you do this, be sure to enter your Cisco.com password in your user profile.

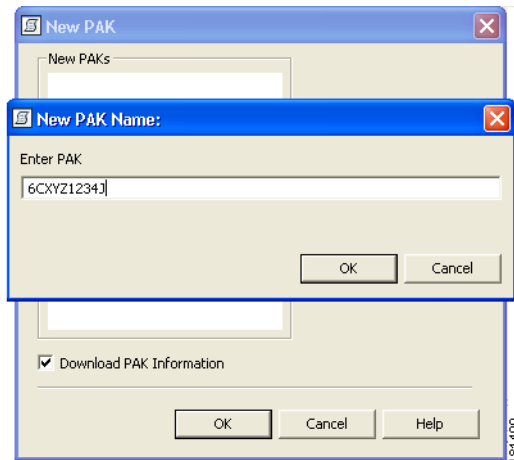
**Step 1** Click the Default PAK folder and then right-click to select **New PAK**.

If you have selected something other than a PAK folder, this menu option may be dimmed.

Click **Add**.

The New Pak Name window appears. (See [Figure 3-6](#).)

Figure 3-6 New PAK Name Window



**Step 2** Enter the PAK from the device and click **OK**.

You should have received your PAK with your shipment or from Cisco via e-mail if you ordered software upgrades.

**Step 3** Be sure the **Download PAK** button is selected. It should already have a check box selected. Click **OK**. The PAK will appear in the Default PAK folder. For details about PAKs, see the online help.

## Retrieving PAK Information

Some Cisco products require the use of a PAK that you must enter to receive a license key. You can use Cisco License Manager to enter your PAK, register your product, and obtain the license key instead of going to directly to Cisco.com. Then you can manage your licenses from your desktop and deploy them at your convenience.



### Tip

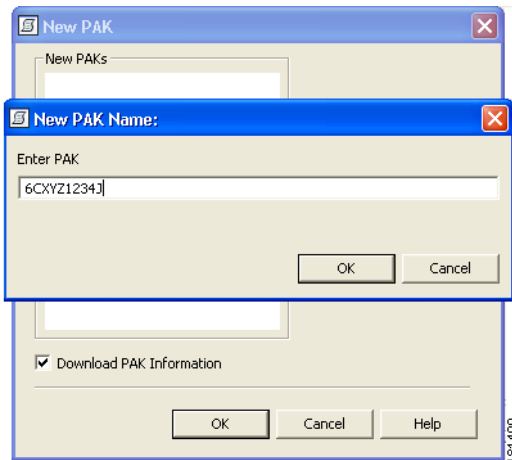
Before you do this, be sure to enter your Cisco.com password in your user profile.

To retrieve the PAK information, enter your PAK string in the Add PAK window. Cisco License Manager then accesses Cisco.com and receives the PAK information, which contains a list of SKUs. You can then continue the steps to obtain a license.

**Step 1** Click an existing PAK folder and right-click **New PAK**.

If you have selected something other than a PAK folder, this menu option may be dimmed.

**Step 2** Click **Add**, then enter the PAK from the device, and click **OK**. (See [Figure 3-7](#).)

**Figure 3-7** New PAK Name Window

- Step 3** Be sure the **Download PAK** button is selected. It should already have a check box selected. Click **OK**. The download begins and a Request Status window displays status.

**Timesaver**

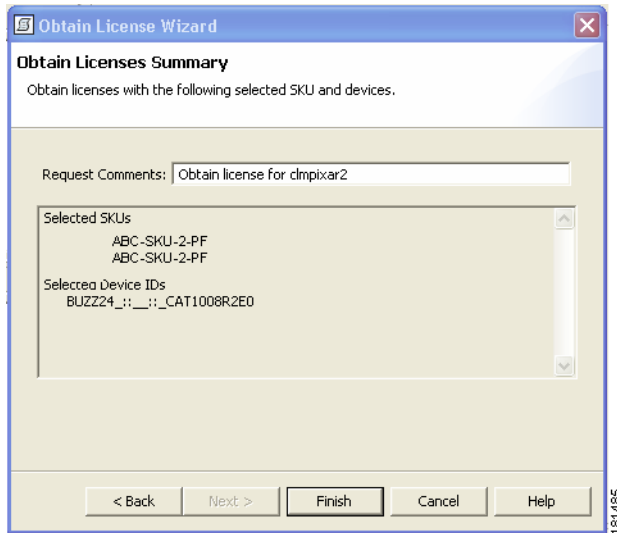
If you receive an error, ensure that your user profile is updated with your e-mail address and Cisco.com password. Then reselect the PAK and click **Download PAK Info**.

- Step 4** If the status window does not close on its own, click **OK** to close it.
- Step 5** To view the status of this request, select the Server Request Status tab in the View pane.
- Step 6** To view the status message, select it and click **View**.  
To close the status message, click the **X** in the upper right portion of the tab.  
Cisco.com e-mails you the license if you have e-mail notification selected in your user profile.

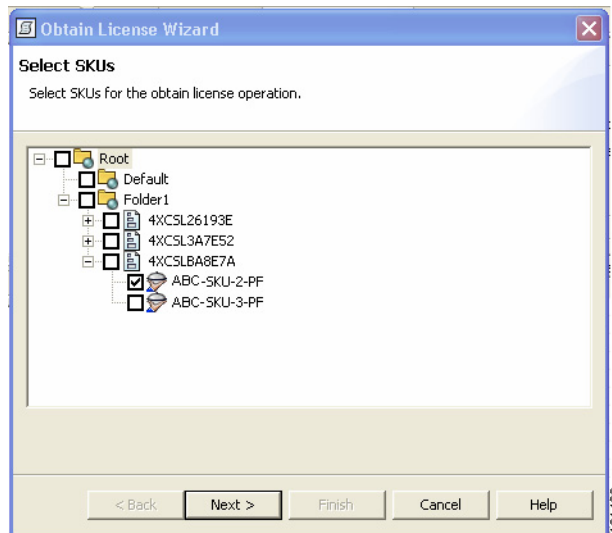
## Obtaining a License by Selecting Devices

You can obtain a license from Cisco either from the PAK Explorer pane, by selecting a SKU, or from the Devices selector, by choosing the device. This procedure describes obtaining a license using the device. (For details on obtaining a license using the SKU, see the online help.)

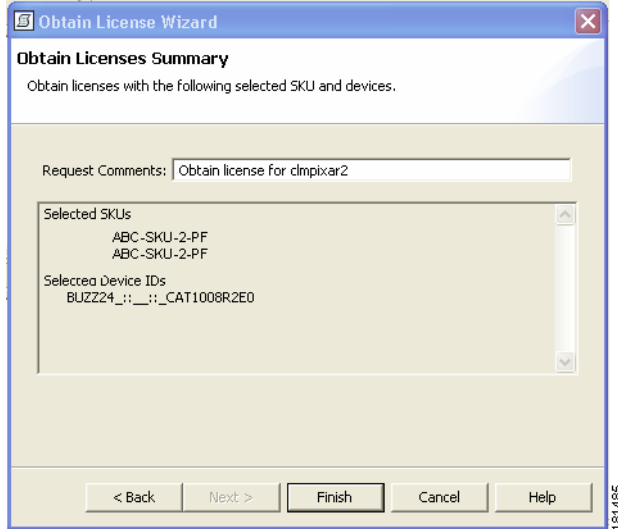
- Step 1** Select a device from the Device selector and then right-click **Obtain License**. (See [Figure 3-8](#).)  
If you have selected something other than a device, this menu option may be dimmed.

**Figure 3-8** Obtain License By Device Window

**Step 2** Select the SKU for which you want to obtain the license and click **Next**. (See [Figure 3-9](#).)

**Figure 3-9** Obtain License By Selecting SKU Window

**Step 3** Enter any request comments (optional) and review the license information, then click **Finish**. (See [Figure 3-10](#).)

**Figure 3-10** Obtain License Summary Window

A Request Status window appears. The license information request is sent to Cisco.com's Cisco Product License Registration Server and is returned with a license ID that is comprised of the PAK ID and the device serial number.

- Step 4** To check the obtained licenses, select the SKU and right-click on **Properties**. The License Table contains the newly downloaded license IDs.

## Deploying Licenses from Your Device

You can deploy a license from Cisco using your device information. There are two ways to deploy licenses.

- Start the process by selecting SKU(s).
- Start the process by selecting device(s).

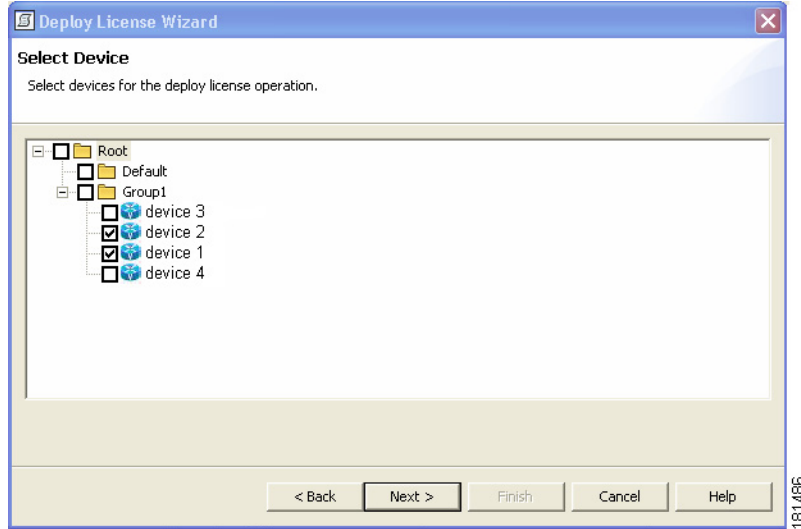
This procedure describes how to deploy licenses by selecting a device.

- Step 1** Select a device from the Device selector and then right-click **Deploy License**.

If you have selected something other than a device, this menu option may be dimmed.

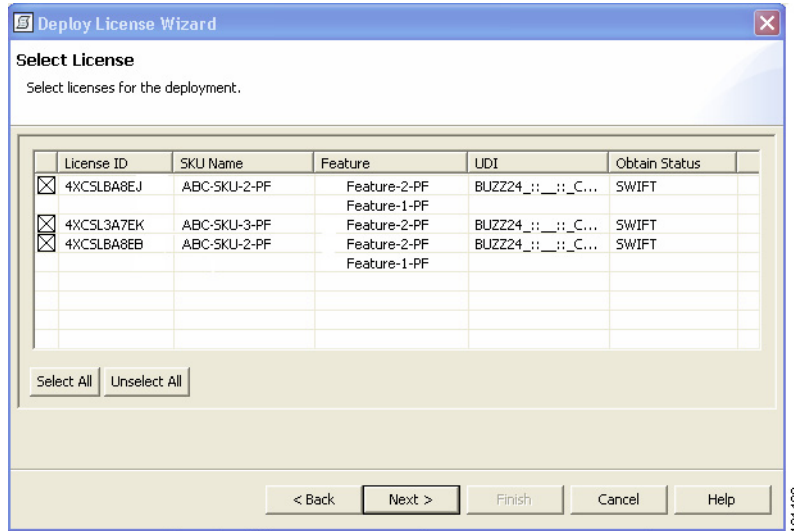
**Step 2** From the Deploy License Wizard, click **Next**. (See [Figure 3-11](#).)

**Figure 3-11** *Deploy Licenses By Device Window*



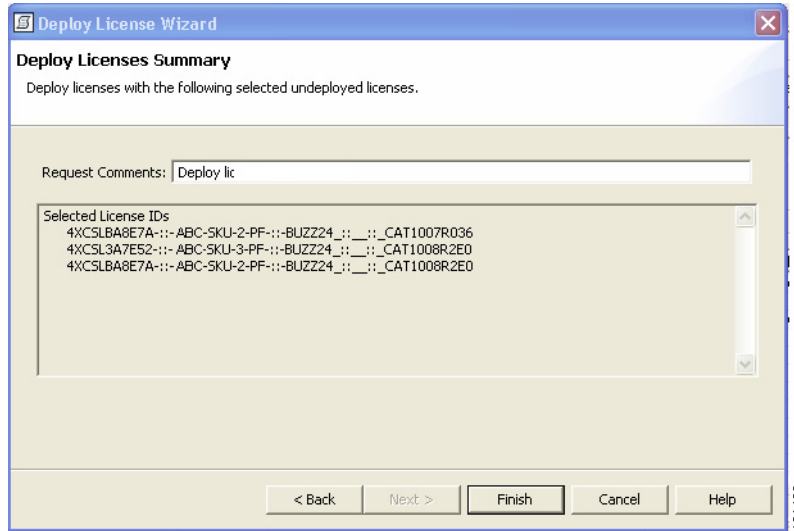
**Step 3** Select the license(s) to deploy and click **Next**. (See [Figure 3-12](#).)

**Figure 3-12** *Select Licenses for Deployment Window*



**Step 4** Enter any request comments (optional) and click **Finish**. (See [Figure 3-13](#).)

**Figure 3-13** *Deploy Licenses Summary Window*



To view the deployment status, click on the Server Request Status tab. Then select the operations status message and click **View**.

**Step 5** To verify the deployed licenses, select the device and right-click on **Properties**. The License Table contains the updated deployed status.