# License Management


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# Overview

Cisco Smart licensing is simple, flexible and a smart way of procuring, deploying and managing licenses in your environment. For more information on smart licensing, see http://www.cisco.com/web/ordering/smart-software-licensing/index.html

You can have smart licensing and traditional licensing in your system at the same time. But only one type of licensing can be active. The following table describes the differences between traditional and smart licensing:

| Traditional Licensing | Smart Licensing |
|---|---|
| Licenses are associated with registered domains. | Dynamic licensing. Licenses are associated with products and transferable within the virtual account. |
| You must obtain a license and manually download and install it on each device in Cisco UCS Central. | No license installation is necessary. The device initiates an HTTPS call home session and requests the licenses that it is configured to use. |
| Licenses are associated with specific domains. | License pools are account-specific. Any device in your company can use them. |
| Licenses are not easily transferable from one device to another. | Licenses can be transferred between product instances without any software installation. You can transfer unused licenses from one virtual account to another. |

## Smart Licensing

Smart licenses are server based licenses. You will purchase, deploy and track licenses for servers instead of domains. Instead of registering individual products with license files or PAKs, Smart Licensing provides the option to create a pool of licenses that can be used across your company's portfolio.

Smart licensing uses Virtual Accounts, Product Instances and Registration Tokens to procure, deploy and manage licenses in your environment.

### Virtual Accounts

Virtual accounts are collections of licenses and product instances. You can create virtual accounts in Cisco Smart Software Manager to organize the licenses for your company into logical entities. You can use virtual accounts to organize licenses by business unit, product type, IT group, or whatever makes sense for your organization. For example, if you segregate your company into different geographic regions, you can create a virtual account for each region to hold the licenses and product instances for that region.

All new licenses and product instances are placed in a virtual account. You choose the virtual account when you register a product instance. You can transfer existing licenses or product instances from one virtual account to another.

For more information on creating virtual accounts in Cisco Smart Software Manager, see http://www.cisco.com/web/ordering/smart-software-manager/docs/smart-software-manager-user-guide.pdf.

### Product Instances

A Cisco UCS Central product instance has a unique device identifier (UDI) that is registered using a product instance registration token. You can register several instances of a product with a single registration token. Each product instance can have one or more licenses that reside in the same virtual account.

### Registration Tokens

Registration tokens are stored in the Product Instance Registration Token Table that is associated with your smart account. After you enable Smart Licensing in Cisco UCS Central, you can generate a new token in a virtual account on the Smart Software Licensing portal to register in Cisco UCS Central.

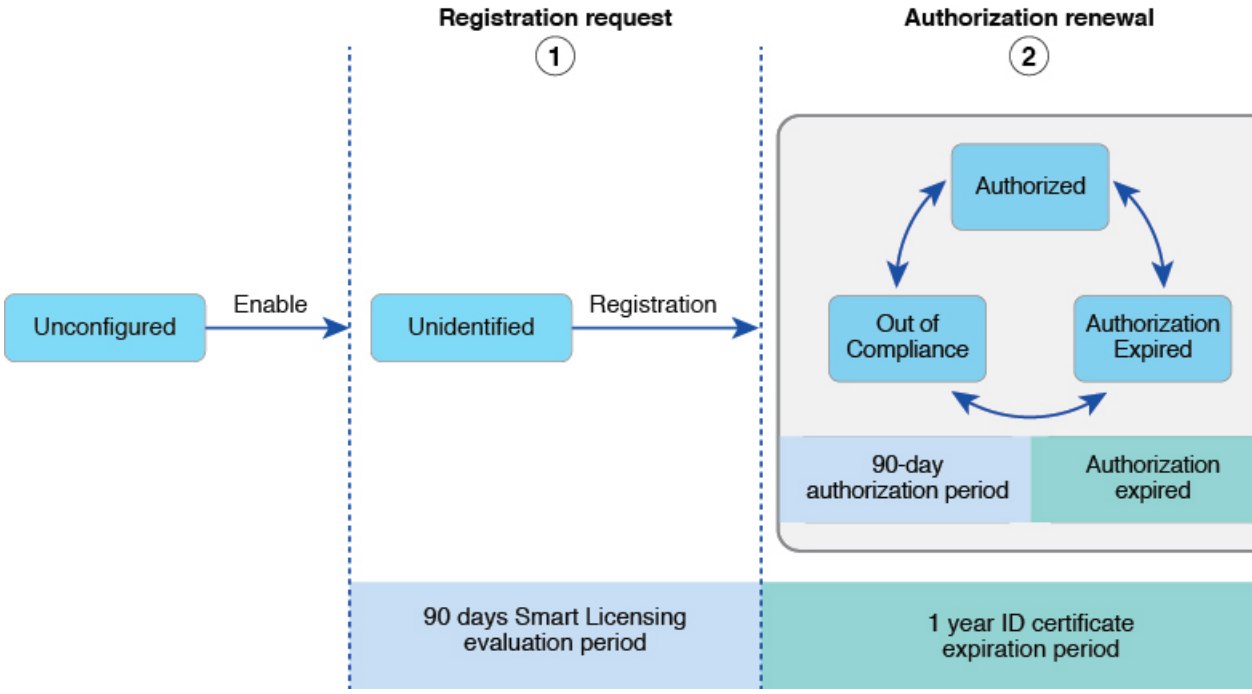
For more information on creating virtual accounts in Cisco Smart Software Manager, see http://www.cisco.com/web/ordering/smart-software-manager/docs/smart-software-manager-user-guide.pdf.

### Obtaining Licenses

To obtain licenses using smart licensing, you will have to do the following:

- Generate tokens in Cisco Smart Software Manager virtual accounts.
- Register licenses for product instances in Cisco UCS Central.

The following illustrations explains the smart licensing process:




| | | |
|---|---|---|
| 1 | **Registration request** | The Smart Licensing 90-evaluation period starts when the product instance begins using the licensing feature. It not renewable. When the evaluation period expires, the agent sends a notification to the platform. |
| 2 | **Authorization renewal** | Authorization requests can result in an **Authorized** or **Out of Compliance (OOC)** response, or in an error due to a communication failure. Authorization periods are renewed every 30 days as long as authorization requests return **Authorized** or **Out of Compliance (OOC)** responses. When the authorization period expires, the agent continues to retry renewal with authorization requests. If successful, a new authorization period starts. If ID cert renewal (authorization renewal) fails, the product instance moves to an Unidentified state and begins consuming the evaluation period. |

## Enabling Smart Licensing

### Before You Begin

Make sure you have enabled Smart Call Home before enabling Smart Licensing. Enabling Smart Call Home includes the following:

- Specify a DNS server.
- Set up Smart Call Home.

- Make sure your Smart Call Home URL is correct. This is the URL the system uses to connect to the smart license server.

**Note** Although you must enable Smart Call Home, a Smart Call Home contract ID is not required to use Smart Licensing.

### Procedure

**Step 1** Click the **System Configuration** icon and choose **Licenses**.

**Step 2** Click **Enable Smart Software Licensing**.
System enables smart licensing and information related to traditional licensing is replaced smart licensing related information.

## Registering UCS Central Using a License Token

### Before You Begin

Make sure Smart Licensing is enabled.

### Procedure

**Step 1** Click the **System Configuration** icon and choose **Licenses**.

**Step 2** Click the **Smart Software Manager** link to go to the Smart Software Manager portal.

**Step 3** In the Smart Software Manager portal:

a) Select a Cisco UCS Central virtual account.

b) Click **New Token** in the **Product Instance Registration Tokens** panel and select **Copy**.

**Step 4** In the Cisco UCS Central **Smart Software Licensing** panel, click **Register Smart Software Licensing**.

**Step 5** In the **Register Smart Licensing** dialog box, paste the new token you generated in the **Product Instance Registration Token** text box.

**Step 6** Click **Register**.

You will receive notifications on registration in progress, successful registration or failure to register. If there are problems with your Smart Call Home settings, a **Failed** message will appear with a link to the **Call Home Configuration**.

## Renewing Authorization

License authorization is used to show if you have enough licenses for your system, or if you are out of compliance. Authorization is renewed automatically by the Smart Licensing agent every 30 days, provided the network is up and Cisco UCS Central can reach the Smart License server.

If authorization is not renewed for 90 days, the authorization will expire.

### Procedure

**Step 1** Click the **System Configuration** icon and choose **Licenses**.

**Step 2** In the Cisco UCS Central **Smart Software Licensing** panel, click the **Tools** menu.

**Step 3** Select **Renew Authorization Now**.

## Renewing Registration

The agent automatically renews the Smart Software Licensing registration certificate or the ID certificate every six months. Certification lasts for one year. If Cisco UCS Central cannot communicate with the Smart License Server, it may fail to renew the certificate. If this occurs, the certification will revert to evaluation state after one year.

### Procedure

**Step 1** Click the **System Configuration** icon and choose **Licenses**.

**Step 2** In the Cisco UCS Central **Smart Software Licensing** panel, click the **Tools** menu.

**Step 3** Select **Renew Registration Now**.

## Deregistering Smart Software Licensing

When you deregister a product instance from Smart Software Licensing, the product will not be associated with the license. The product will be removed from the list of registered products for the associated virtual account. You can use the license to register another product, or reregister a product that has been deregistered.

### Procedure

**Step 1** Click the **System Configuration** icon and choose **Licenses**.

**Step 2** In the Cisco UCS Central **Smart Software Licensing** panel, click the **Tools** menu.

**Step 3** Select **Deregister** to remove Cisco UCS Central from Smart Software Manager.

## Disabling Smart Software Licensing

If you disable Smart Software Licensing, Cisco UCS Central automatically returns to the Traditional Licensing mode.

**Note** Only one licensing mode is supported at a time.

**Procedure**

**Step 1** Click the **System Configuration** icon and choose **Licenses**.

**Step 2** In the Cisco UCS Central **Smart Software Licensing** panel, click the **Action** menu.

**Step 3** Select **Disable Smart Software Licensing**.

# Traditional Licensing

Traditional PAK-based licensing uses domain-based licenses instead of the product-based license that Smart Licensing offers. You can manage domain licenses through the Cisco UCS Central GUI or CLI.

You have a 120 day grace period to evaluate Cisco UCS Central at no cost. The grace period is measured from the day you register your first Cisco UCS domain and is stored in the system. Unregistering a domain from the system does not reset the grace period. For example, if you register a domain, use 40 days of the grace period, and then unregister after 40 days, the system records the 40 days in association with that domain. If you register this Cisco UCS domain again, the grace period for the domain resumes and indicates that you have used 40 days.

You must obtain and install a valid domain license before the grace period expires. If you do not the system generates multiple faults as a reminder to procure a license.

## Obtaining a Traditional License

### Before You Begin

Obtain the Product Authorization Key (PAK) from the claim certification or other proof of purchase documentation.

### Procedure

**Step 1** On the menu bar, click **System Configuration** icon and select **Licenses**.
This launches a **License** information page.

**Step 2** Click **UCS Central GUID** link and copy the GUID to your clipboard.
The GUID is unique to each Cisco UCS Central instance for obtaining licenses.

**Step 3** Click **Cisco SWIFT** to open the Product License Registration portal.
Videos on this page provide information on software licensing features and operations.

**Step 4** Login and click **Continue to Product License Registration**.

**Step 5** On the **Product License Registration** page, enter the PAK in the **Get New Licenses** field and click **Fulfill**.

**Step 6** On the **Assign SKUs to Devices** page, check the **Quantity Available** checkbox next to the PAK that you entered.

**Step 7** Enter the GUID in the **GUID** field, and click **Assign**.

**Step 8** Click **Next**.

**Step 9** On the **Review** page, enter your email address, select the user ID, and check the **License Agreement** checkbox.

**Step 10** Click **Get License**.
Cisco sends you the license zip file by email. The license file is digitally signed to authorize use on only the specified Cisco UCS domain.

**Caution** After you obtain the license file, you must not tamper with the license code. Any manual edits from your part breaks the tamper proof, and disables the license.

### What to Do Next

Unzip the license file and install it.

## Downloading a License from a Local File System

### Before You Begin

To download a license from the local file system to Cisco UCS Central, make sure you have the following:

- A Cisco product license saved it to your local system.
- Administrative permission for Cisco UCS Central to perform this task.

### Procedure

**Step 1** Click the **System Configuration** icon and choose **Licenses**.
This launches the **License** information page.

**Step 2** Click **Install License**.

**Step 3** Click **Local**

**Step 4** In the **Filename** dialog box, type the full path and the name of the license.
If you do not know the exact path to the folder where the license is located, click **Choose File** to navigate and select the file.

**Step 5** Click **Install**.
Cisco UCS Central downloads the license.

## Downloading a License from a Remote File System

### Before You Begin

To download a license from a remote location to Cisco UCS Central, make sure you have the following:

- A Cisco product license saved it to a remote location.
- The username and password required to access an FTP, SCP, or SFTP server if necessary.
- Administrative permission for Cisco UCS Central to perform this task.

### Procedure

**Step 1** Click the **System Configuration** icon and select **Licenses**.
This launches a **License** information page.

**Step 2** Click **Install License**.

**Step 3** In the **Download License** dialog box, click **Remote**.

**Step 4** Select the protocol to use to communicate with the remote server.

- **FTP**
- **TFTP**
- **SCP**
- **SFTP**

**Step 5** In the **Path** field, enter the absolute path to the license file on the remote server, if required.
If you use SCP, the absolute path is always required. If you use any other protocol, you may not need to specify a remote path if the file resides in the default download folder. For details about how your file server is configured, contact your system administrator.

**Step 6** In the **User Name** field, enter the user name to log into the remote server.
If you selected TFTP, this field does not apply.

**Step 7** In the **Password** field, enter the password for the remote server user name.
If you selected TFTP, this field does not apply.

**Step 8** Click **Install**.
Cisco UCS Central downloads the license.

## Installing a License

Make sure the license is downloaded in Cisco UCS Central.

### Procedure

**Step 1** On the menu bar, click **System Configuration** icon and choose **Licenses**.

**Step 2** Click the **Install** icon.
Launches the License Install dialog box.

**Step 3** In the License Install dialog box, select **Local** or **Remote** file location, enter required information and select the license file.

**Step 4** Click **Install**.
The **Overall License Status** column displays the status of the installation. When you initiate the installation, the status in this column displays **Install-pending**. After the license is installed, the status changes to **Installed**.

## Deleting a Traditional License

You can delete a traditional license that is not associated with a registered UCS domain, from Cisco UCS Central. If you want to delete a license that is associated to a UCS domain, make sure to unregister the domain before deleting the license. When you delete a license, the system automatically adjusts the available license count.

**Important** Deleting a license from Cisco UCS Central removes only the license file from the system. If you try to download the same license after deleting it from the system, you might encounter a download license error. So when you delete a license, you must delete the associated download task for that license.

### Procedure

**Step 1** Click the **System Configuration** icon and choose **Licenses**.
This launches a **License** information page.

**Step 2** Select the license you want to uninstall.

**Step 3** Click **Delete**.

**Step 4** Click **Yes** in the confirmation dialog box.
The license file is deleted from Cisco UCS Central.