Cisco Smart Licensing

A license is required to use all the features in Cisco WAE. If you have questions about obtaining a license, contact your Cisco support representative or system administrator.

Cisco WAE supports both Cisco Smart Licensing and traditional licensing. If you would like to convert from a traditional license to Smart Licensing, see your Cisco WAE account representative. For information on the differences between the two types of licensing, refer to the Cisco Smart Licensing Overview on Cisco.com.

Note If you decide to move back from Smart License to traditional license, disable Smart License from Cisco WAE UI and manually delete the file `MATE_Smart.lic` file present in `~/.cariden/etc` folder.

The tasks mentioned in this chapter can be performed by a user with administrative capabilities.

This section contains the following topics:

Cisco Smart Licensing Overview

Cisco offers Smart Licensing, which enables you to monitor Cisco WAE software licenses and endpoint license consumption easily and efficiently through a simple registration and license consumption reporting process instead of having to install node-locked license files. Details of all Cisco products and licenses that you have purchased are maintained in a centralized database called the Cisco Smart Software Manager (CSSM).

Smart Licensing Configuration Workflow

Step 1 Create a Smart Account with Cisco Systems. To do this, go to Smart Account Request and follow the instructions on the web site.

Step 2 Do one of the following

  • If using WAE Design, enable Smart Licensing using the WAE Design GUI or CLI in your local WAE Design setup (Windows, Mac, or Linux). For more information, see *WAE Design GUI Installation Guide*.

  • If using WAE Collector Server, after sourcing waerc, run

```
license_install -smart-lic-host <hostname or IP> -smart-lic-port 2022 -smart-lic-username admin
 -smart-lic-password Admin@123
```

  where

  `-smart-lic-host` is the hostname or IP of machine on which WAE server is running (the place where WAE is installed and all nimos are running).

  `-smart-lic-port` is the port on which the WAE server listens for netconf messages. Unless you have modified, this should be 2022

  `-smart-lic-username` is the user name to login to WAE server. Unless you have modified, this should be admin

  `-smart-lic-password` is the password to login to WAE server. Unless you have modified, this should be Admin@123

  After the command is run, `MATE_Smart.lic` file will be created under `~/.cariden/etc` folder.

Step 3 Register Cisco WAE with the Cisco Smart Software Manager, on page 3

Step 4 (Optional) By default, the Smart License information is sent directly to the cloud. To change this, follow the steps outlined in Configure the Transport Mode Between Cisco WAE and the CSSM, on page 3

Enable Smart Licensing in Cisco WAE

Before you begin

Confirm that you have a Smart Account. If not, go to Smart Account Request and follow the instructions on the web site.

Note You can disable Smart Licensing at any time by clicking **Disable Smart Software Licensing** from **WAE UI > Smart Licensing**.

Step 1 From WAE UI, click Smart Licensing.

Step 2 Click **Enable Smart Software Licensing**.

Step 3 Click **OK** to confirm that you are enabling Smart Licensing. The Smart Licensing page appears.

Step 4   Do one of the following:

a) If you have not registered Cisco WAE with the CSSM on Cisco.com, Cisco WAE will be in evaluation mode (which expires in 90 days). Register Cisco WAE as described in Register Cisco WAE with the Cisco Smart Software Manager, on page 3.

b) If you have registered Cisco WAE with the CSSM, select the licenses you want to use.

Note   To enable Smart Licensing for WAE Design, see the *Cisco WAE Design GUI Installation Guide*.

Configure the Transport Mode Between Cisco WAE and the CSSM

By default, the Smart License information directly to the cloud. To change this, perform the following steps:

Step 1   From the Smart Software Licensing page, click **View/Edit** from the Transport Settings field. The Transport Settings window appears.

Step 2   Select a communication mode:

• Direct mode—Send license information directly to the cloud. This is the default. You cannot edit this URL.
• Transport Gateway—Use a Cisco Call Home transport gateway or a Cisco Smart Licensing Software satellite. (A satellite is installed on customer premises and provides a subset of CCSM functionality. See Smart Licensing for more information.

If you are using satellite for registration, make sure to install 7-202001 version of the satellite.

• HTTP Proxy—Use an HTTP/HTTPS proxy for communication between and the cloud. Enter the proxy IP Address, Port, Username and Password.

Step 3   Click **Save**.

Register Cisco WAE with the Cisco Smart Software Manager

To register Cisco WAE with the Cisco Smart Software Manager (CSSM), you must obtain a token from the CSSM and enter it into the WAE UI. This is a one-time requirement. If Cisco WAE is already registered, you must deregister the product, then register it again. For information on how to use the CSSM, including renewing license registration and authorization, refer to the Cisco Smart Software Manager User Guide. You can also access these operations within the WAE UI using the Smart Licensing page.

Before you begin

• Confirm that you have a Smart Account. If not, go to Smart Account Request and follow the instructions on the web site.

• Confirm that Smart Licensing is enabled in Cisco WAE. See Enable Smart Licensing in Cisco WAE, on page 2.

Step 1   Go to the Cisco Software Central web site.

Step 2   Obtain your tokens. If you already have tokens, proceed to the next step.

Step 3   If your token is no longer valid, you can obtain a new token using this procedure.

         a)   On Cisco Software Central, choose License > Smart Software Licensing.

         b)   Select the appropriate virtual account.

         c)   Click the General tab, then click **New Token**.

         d)   Follow the instructions to provide a name and duration. If you need to create a restricted token to enable export control functions, you can click the **Allow Export-Controlled Functionality** button.

         e)   Click **Create Token**.

         f)   Copy the Token ID to your clipboard and proceed to the next step.

Step 4   From the WAE UI, click **Register**. The Smart Software Licensing Product Registration window appears.

Step 5   Enter the Token ID you just copied in Step 3 to register the product instance.

         Note   Select the option **Reregister this product instance if it is already registered** to reregister the license.

Step 6   The Smart Software Licensing Status page appears.

Step 7   Click **Choose Licenses...**.

Step 8   Click all applicable licenses from the license table and enter the corresponding number of license instances.

Step 9   Click **OK** to save the changes. The Smart License Usage table is updated with the changes. Click the Refresh icon on the top of the page to manually refresh the data.

Step 10   All details related to the license are available on this screen. The **Actions** drop-down provides further options:

         • Renew Authorization Now
         • Renew Registration Now
         • Reregister
         • Deregister
         • Disable Smart Software Licensing

Register Cisco WAE in Offline Mode with the Cisco Smart Software Manager

Before you begin

- Confirm that you have a Smart Account. If not, go to Smart Account Request and follow the instructions on the web site.

- Confirm that Smart Licensing is enabled in Cisco WAE. See Enable Smart Licensing in Cisco WAE, on page 2.

- Smart Account License Reservation to be used in offline mode needs specific permission from Cisco. See Smart Licensing for more information.

✎

Note	In Offline mode, only Specific License Reservation (SLR) is supported and Permanent License Reservation (PLR) is not supported.

Step 1   From WAE UI click Smart Licensing.

Step 2   Click **Register**. The Smart Software Licensing Product Registration window appears.

Step 3   For usage in offline mode, click **Start Here**.

Step 4   Click **Yes, My Smart Account License Reservation Enabled**.

Step 5   On the Smart License Reservation screen, click **Generate Reservation Request Code**. Your License Reservation Request Code is displayed in the following screen. Copy this code using **Copy to Clipboard** button.

Step 6   Go to the Cisco Software Central web site and select the appropriate virtual account.

Step 7   Click Licenses tab, then click **License Reservation**. Paste the License Reservation Request Code here and click **Next**.

Step 8   In the Select Licenses screen, select **Reserve a Specific License** radio button, reserve the necessary licenses from the list and click **Next**.

Step 9   In the Review and Confirm screen, click **Generate Authorization Code**. Copy the code using **Copy to Clipboard** button.

Step 10   Navigate back to WAE UI → Smart Licensing. Click **Enter Reservation Authorization Code**. Paste the Reservation Authorization Code and click **Install Authorization Code/File**.

Step 11   In the WAE UI → Smart Software Licensing screen, use **Choose Licenses...** option to check out necessary number of licenses for usage.

Update Reservation

Use Update Reservation option to reserve more licenses.

Step 1   On WAE UI -> Smart Software Licensing screen, make a note of Product Instance Name.

Step 2   Go to the Cisco Software Central web site and select the appropriate virtual account.

Step 3   Click Product Instances tab, search for the name of the product instance that matches the Product Instance Name from WAE UI screen.

Step 4   For this product instance, select **Actions** drop-down and choose **Update Reserved Licenses**.

Step 5   In the Select Licenses screen, select **Reserve a Specific License** radio button, reserve the necessary licenses from the list and click **Next**.

Step 6   In the Review and Confirm screen, click **Generate Authorization Code**. Copy the code using **Copy to Clipboard** button.

Step 7   Navigate back to WAE UI → Smart Licensing. Click **Update Reservation...**. Paste the Reservation Authorization Code and click **Install Authorization Code/File**.

Step 8   A License Reservation Confirmation Code is generated. Copy this code.

Step 9   Navigate back to Cisco Software Central web site. The last step in the Update License Reservation screen is to enter the confirmation code. Click **Enter Confirmation Code**.

Step 10 Enter the Reservation Confirmation Code and click **OK**.

Step 11 In the WAE UI → Smart Software Licensing screen, use **Choose Licenses...** option to check out necessary number of licenses for usage.

Return Reserved Licenses

You can return licenses reserved using Return Reserved Licenses option.

Step 1 On WAE UI → Smart Licensing. Click **Return Reserved Licenses...**.

Step 2 In the Confirm Return Licenses screen, click **Generate Reservation Return Code**.

Step 3 Copy the License Reservation Return Code using **Copy to Clipboard** button.

Step 4 Navigate to the Cisco Software Central web site and select the appropriate virtual account.

Step 5 Click Product Instances tab, search for the name of the product instance that matches the Product Instance Name from WAE UI screen.

Step 6 For this product instance, select **Actions** drop-down and choose **Remove**.

Step 7 In the Remove Product Instance pop-up, paste the Reservation Return Code and click **Remove Product Instance**.

Step 8 Close the Remove Product Instance pop-up. You can see that the Registration Status is back to Unregistered state.

Once the Registration Status is back to Unregistered state, the **Disable License Reservation** and **Generate Reservation Request Code** options are available.

Step 9 On WAE UI → Smart Licensing, upon refreshing the page, you can see that the Registration Status is back to Unregistered state.

Smart License Registration and Authorization Statuses

Registration Status

The license registration status reflects whether Cisco WAE is properly registered with Cisco Smart Software Licensing on Cisco.com.

License Registration Status	Description
Unregistered	Smart Software Licensing is enabled on Cisco WAE, but Cisco WAE is not registered with the CSSM.
Registered	Cisco WAE is registered with the CSSM. Cisco WAE has received an ID certificate that will be used for future communication with the Cisco licensing authority.
	By default, registration renewal happens automatically every 30 days. If you want to manually renew it, click **Renew Registration Now** from the drop-down list

License Registration Status	Description
	available on the top right of the Smart Software Licensing page.
	To unregister, click **Deregister** from the drop-down list available on the top right of the Smart Software Licensing page.

License Authorization Status

The License Authorization status reflects license usage against purchased licenses, and whether you are in compliance with Cisco Smart Licensing. If you exceed the number of purchased license, the product will be Out of Compliance.

License Authorization Status	Description
Evaluation Mode	Cisco WAE is running in evaluation mode (expires in 90 days).
Authorized	Cisco WAE has a valid Smart Account and is registered. All licenses requested by Cisco WAE are authorized for use.
Out of Compliance	Cisco WAE has exceeded the number of licenses that were purchased. (Specifically, the virtual account for the product instance has a shortage of one or more licenses types.)
Evaluation Expired	The evaluation period has expired and Cisco WAE is in the unlicensed state.
Authorization Expired	Cisco WAE did not successfully renew its license authorization prior to the authorization expiration date. To renew auhorization, click **Renew Authorization Now** from the drop-down list available on the top right of the Smart Software Licensing page.
Not in Use	A license is not in use.