# Cisco Smart Licensing Client

Smart Licensing Client feature is a standardized licensing platform that simplifies the Cisco software experience and helps you to understand how Cisco software is used across your network. Smart Licensing is the next generation licensing platform for all Cisco software products.

This document provides an overview of the Cisco Smart Licensing Client feature and describes the several tools and processes required to complete the products registration and authorization.

# Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

# Prerequisites for Cisco Smart Licensing Client

- Ensure that Call Home is not disabled before using the Smart Licensing Client feature.

• Ensure that Cisco One Suites is configured before enabling Smart Licensing on the device.

# Restrictions for Cisco Smart Licensing Client

• Only Cisco One Suites is supported in Cisco Smart Licensing for the current release.

• Only one licensing mode, either the Classical Licensing (CISL) or the Smart Licensing mode is supported at one point in time.

# Information About Cisco Smart Licensing Client

## Cisco Smart Licensing - An Overview

A new licensing model, based on a single technology, has been designed for Cisco called Smart Licensing that is intended to provide Enterprise Level Agreement-like capabilities for all of Cisco's products.

Smart Licensing is software based licensing end-to-end platform that consists of several tools and processes to authorize customers the usage and reporting of the Cisco products. The feature has the capability to capture the customers order and communicates with Cisco Cloud License Service through Smart Call Home transport media to complete the products registration and authorization on desired performance and technology level.

The Smart Licensing feature is aimed at giving users an experience of a single, standardized licensing solution for all Cisco products.

To know more about Smart Call Home, please refer to Smart Call Home.

## Transitioning from CISL to Smart Licensing

In the Smart Licensing Model, customers can activate licensed objects without the use of a special software key or upgrade license file. The customers simply activate the new functionality using the appropriate product commands and configurations and the functionality is activated. A software reboot may or may not be required depending on the product capabilities and requirements.

Similarly, downgrading or removing an advanced feature, performance, or functionality would require a removal of the configuration or command.

Once either of these actions has been taken, the change in license state is noted by the Smart Software Manager upon next synchronization and an appropriate action is then taken.

## Cisco One Suites

Cisco ONE Suites is a new way for customers to purchase infrastructure software. Cisco ONE offers a simplified purchasing model, centered on common customer scenarios in the data center, wide area network, and local access networks. To know more about Cisco One Suites, please refer to Cisco ONE Suites.

# How to Activate Cisco Smart Licensing Client

## Enable Smart Licensing

### Before You Begin

Before you enable Smart Licensing, ensure that Cisco One Suites is already enabled on your device. To know how to enable Cisco One Suites, please refer to Activating Cisco One Suite License.

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **license smart enable**
4. **exit**
5. **write memory**
6. **reload**
7. **show license all**

### DETAILED STEPS

|  | Command or Action | Purpose |
|---|---|---|
| **Step 1** | **enable**<br><br>**Example:**<br><br>`Device> enable` | Enables privileged EXEC mode.<br><br>• Enter your password if prompted. |
| **Step 2** | **configure terminal**<br><br>**Example:**<br><br>`Device# configure terminal` | Enters global configuration mode. |
| **Step 3** | **license smart enable**<br><br>**Example:**<br><br>`Device# license smart enable` | Activates Smart Licensing on the device.<br><br>**Note**     When you enable Smart Licensing, the Cisco Software License (CSL) and all licensing calls pass through the Smart Agent.<br>For the 'no' case, if Smart Licensing is already registered, the Smart Agent performs the "license smart deregister" operation that deactivates Smart Licensing. Reload the device to activate the CSL on the device. |
| **Step 4** | **exit**<br><br>**Example:**<br><br>`Device# exit` | Exits the global configuration mode. |

| | | Command or Action | Purpose |
|---|---|---|---|
| Step 5 | | **write memory**<br><br>**Example:**<br><br>`Device# write memory` | Saves the running configuration to NVRAM. |
| Step 6 | | **reload**<br><br>**Example:**<br><br>`Device# reload` | (Optional) Restarts the device to enable the new feature set.<br><br>**Note**     Reload the device if you have not reloaded the device after configuring the Cisco One Suites. |
| Step 7 | | **show license all**<br><br>**Example:**<br><br>`Device# show license all` | (Optional) Displays summary information about all licenses. |

# Smart License Disable

## SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **no license smart enable**
4. **license accept end user agreement**
5. **exit**
6. **write memory**
7. **reload**
8. **show license all**

## DETAILED STEPS

| | | Command or Action | Purpose |
|---|---|---|---|
| Step 1 | | **enable**<br><br>**Example:**<br><br>`Device> enable` | Enables privileged EXEC mode.<br><br>   • Enter your password if prompted. |

| | **Command or Action** | **Purpose** |
|---|---|---|
| **Step 2** | **configure terminal**<br><br>**Example:**<br><br>Device# configure terminal | Enters global configuration mode. |
| **Step 3** | **no license smart enable**<br><br>**Example:**<br><br>Device(config)# no license smart enable | Deactivates Smart Licensing on the device.<br><br>**Note**    When you disable Smart Licensing, the Cisco Software License (CSL) and all licensing calls pass through the Smart Agent. For the 'no' case, if Smart Licensing is already registered, the Smart Agent performs the "license smart deregister" operation that deactivates Smart Licensing. Reload the device to activate the CSL on the device. |
| **Step 4** | **license accept end user agreement**<br><br>**Example:**<br><br>Device(config)# license accept end user agreement | Uses the **license accept end user agreement** command to configure a one-time acceptance of the EULA for all Cisco IOS software packages and features.<br><br>**Note**    After the **license accept end user agreement** command is issued and the EULA accepted, the EULA is automatically applied to all Cisco IOS software licenses. For more information, refer to the "Configuring the EULA" section in the Software Activation on Cisco ISR, Cisco ISR G2, and Cisco ISR NG Guide. |
| **Step 5** | **exit**<br><br>**Example:**<br><br>Device(config)# exit | Exits the global configuration mode. |
| **Step 6** | **write memory**<br><br>**Example:**<br><br>Device# write memory | Saves the running configuration to NVRAM. |
| **Step 7** | **reload**<br><br>**Example:**<br><br>Device# reload | (Optional) Restarts the device to enable the new feature set.<br><br>**Note**    Reload the device if you have not reloaded the device after configuring the Cisco One Suites. |
| **Step 8** | **show license all**<br><br>**Example:**<br><br>Device# show license all | (Optional) Displays summary information about all licenses. |

# Device Registration

## SUMMARY STEPS

1. **enable**
2. **license smart register idtoken***idtoken*[**force**]
3. **license smart deregister**
4. **license smart renew**[**ID | auth**]

## DETAILED STEPS

|  | Command or Action | Purpose |
|---|---|---|
| Step 1 | **enable**<br><br>**Example:**<br><br>`Device> enable` | Enables privileged EXEC mode.<br><br>• Enter your password if prompted. |
| Step 2 | **license smart register idtoken***idtoken*[**force**]<br><br>**Example:**<br><br>`Device# license smart register idtoken`<br>`123` | Registers the device with the back-end server. Token id can be obtained from your virtual a/c in the Smart Licensing server.<br><br>• **force**: To forcefully register your device irrespective of either the device is registered or not.<br><br>**Note**    The device supplies the token ID to the Cisco server, which sends back a "Device Certificate" that is valid for 365 days. |
| Step 3 | **license smart deregister**<br><br>**Example:**<br><br>`Device# license smart deregister` | Deregisters the device from the backend server. |
| Step 4 | **license smart renew**[**ID | auth**]<br><br>**Example:**<br><br>`Device# license smart renew ID` | (Optional) Manually renews the ID certification or authorization. |

# Troubleshooting for Cisco Smart Licensing Client

You can troubleshoot Smart Licensing enabling issues using the following commands on the device:

• **show version**

• **show running-config**

- **show license tech support**

- **show license entitlement**

- **show license feature**

- **show license certificate**

- **debug smart_lic error**

- **debug smart_lic trace**

# Configuration Examples for Cisco Smart Licensing Client

## Example: Displays summary information about all licenses

The following example shows how to use the **show license all** command to display summary information about all licenses.

```
Device# show license all
Cisco Smart Licensing Agent, Version 1.0.0_development

Smart Licensing Enabled: Yes

UDI:
PID:CISCO2911/K9,SN:FTX1643AJFR

Compliance Status: In Compliance

Assigned License Pool: ISR_G2_Cisco_One

Grace period: Not in use

Entitlement:
    Tag: regid.2014-06.com.cisco.ISR_2900_FS_ENT,1.0_71846b6b-db2a-46f3-9c8e-ce0fc68882fc,
 Version: 1.0, Enforce Mode: Authorized
    Requested Time: Wed Oct 29 23:34:58.011,  Requested Count: 1
    Vendor String:

Smart Licensing State: authorized (4)

Licensing Certificates:
    ID Cert Info:
        Start Date: Oct 29 23:42:33 2014 UTC. Expiry Date: Oct 29 23:42:33 2015 UTC
        Serial Number: 97879
        Version: 3
        Subject/SN: 241e4492-9582-4f0a-9b01-221fdecc2a1b
        Common Name: 1A4BF5460E0939AED4D14B2E3C7CD809A98CFCC9::1,2
    Signing Cert Info:
        Start Date: Jun 14 20:18:52 2013 UTC. Expiry Date: Apr 24 21:55:42 2033 UTC
        Serial Number: 3
        Version: 3

Upcoming Scheduled Jobs:
    Certificate Renewal: Apr 27 23:45:24 2015 UTC (179 days, 23 hours, 59 minutes, 47 seconds
 remaining)
    Certificate Expiration: Oct 29 23:42:39 2015 UTC (364 days, 23 hours, 57 minutes, 2
seconds remaining)
    Authorization Renewal: Nov 28 23:45:35 2014 UTC (29 days, 23 hours, 59 minutes, 58
seconds remaining)
    Authorization Expiration: Jan 27 23:42:54 2015 UTC (89 days, 23 hours, 57 minutes, 17
seconds remaining)
    Daily Job: Oct 30 23:28:04 2014 UTC (23 hours, 42 minutes, 27 seconds remaining)
```

## Example: Enabling Smart Licensing

The following example shows how to use the **license smart enable** command to confirm if the Cisco ONE Suite is enabled.

```
Device# license smart enable
Currently only Cisco ONE license suites are supported by Smart Licensing.
Please make sure your Cisco ONE suites are enabled before turning on Smart Licensing. Any
other licenses outside of Cisco ONE suites would be disabled and made unusable in Smart
Licensing. If you have any questions, please get in touch with your Cisco representative
before using this mmode.
Please confirm Cisco ONE suites are enabled? [yes/no]: yes
```

# Additional References for Cisco Smart Licensing Client

**Related Documents**

| Related Topic | Document Title |
|---|---|
| Cisco IOS commands | Cisco IOS Master Commands List, All Releases |
| Cisco License Manager Application | *User Guide for Cisco License Manager* |
| Software Activation Conceptual Overview | "Cisco IOS Software Activation Conceptual Overview" module |
| Software Activation Commands | *Software Activation Command Reference* |
| Integrated Services Routers Licensing | *Software Activation on Cisco Integrated Services Routers* |

**Standards and RFCs**

**MIBs**

| MIB | MIBs Link |
|---|---|
| CISCO-LICENSE-MGMT-MIB | To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs |

**Technical Assistance**

| Description | Link |
|---|---|
| The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.<br><br>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.<br><br>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password. | http://www.cisco.com/cisco/web/support/index.html |

# Feature Information for Cisco Smart Licensing Client

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

*Table 1: Feature Information for Cisco Smart Licensing*

| Feature Name | Releases | Feature Information |
|---|---|---|
| Cisco Smart Licensing Client | Cisco IOS Release XE 3S | The Smart Licensing feature is a standardized licensing platform that simplifies the Cisco software experience and helps you understand how Cisco software is used across your network. Smart Licensing is the next generation licensing platform for all Cisco software products.<br><br>This feature is platform-independent.<br><br>The following commands were introduced or modified by this feature: **license smart enable**, **show license all** |