



# Cisco Smart Licensing Client

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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.

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## 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.

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](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## Prerequisites for Cisco Smart Licensing Client

- Ensure that Call Home is enabled before using the Smart Licensing Client feature.

# Restrictions for Cisco Smart Licensing Client

- Only one licensing mode, either the Cisco IOS Software License (CISL) and Cisco ONE or the Smart Licensing mode is supported at one point in time.

## Information About Cisco Smart Licensing Client

### Cisco Smart Licensing - An Overview

A licensing model, based on a single technology, Smart Licensing has been designed for Cisco, which is intended to provide Enterprise-level Agreements for all Cisco products. Smart Licensing provides a software inventory management system that provides Customers, Cisco, and selected Partners with information about Software Ownership and Software Utilization.



*Image to be inserted*

Smart Licensing is software based end-to-end license platform that comprises several tools and processes that authorizes customers to use and to report Cisco products. Smart licensing has the capability to capture a customer's order and to communicate with Cisco Cloud License Service through the Smart Call Home Transport Gateway. Additionally, the Smart Call Home Transport Gateway helps to complete product registration and authorization based on the desired performance and technology levels of Cisco products. To know more about Call Home, refer to [Call Home](#).

Benefits of Smart Licensing are the following:

- The Smart Licensing feature is aimed at giving users an experience of a single, standardized licensing solution for all Cisco products. Adding support for CiscoONE suites in the Cisco IOS Software License (CISL) and Smart Licensing mode, including the Foundation Suite and Active Directory Users and Computers (ADUC) Suite.
- Smart Licensing feature provides the ability to switch between traditional licensing (CSL) and Smart Licensing mode
- The Smart Licensing feature supports four software universal images NPE, NO-LI, NPE-NO-LI, and Non-NPE images.

### Transitioning from CSL 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. 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 removal of the configuration or command.

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

Smart Licensing supports Smart License Cisco ONE suite level licenses and image licenses, such as ipbase, Advanced IP Services (AIS), Advanced Enterprise Services (AES) and feature license and throughput performance, crypto throughput and port licensing on ASR 1000 Aggregation Series Routers.

To know more about Cisco One Suites, please refer to [Cisco ONE Suites](#).

# How to Activate Cisco Smart Licensing Client

## Enable Smart Licensing

### SUMMARY STEPS

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

### DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>  <b>Example:</b> Device> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"><li>• Enter your password if prompted.</li></ul>
Step 2	<b>configure terminal</b>  <b>Example:</b> Device# configure terminal	Enters global configuration mode.
Step 3	<b>license smart enable</b>	Activates Smart Licensing on the device.

	Command or Action	Purpose
	<b>Example:</b> <pre>Device# license smart enable</pre>	<b>Note</b> When you enable 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.
<b>Step 4</b>	<b>exit</b> <b>Example:</b> <pre>Device# exit</pre>	Exits the global configuration mode.
<b>Step 5</b>	<b>write memory</b> <b>Example:</b> <pre>Device# write memory</pre>	Saves the running configuration to NVRAM.
<b>Step 6</b>	<b>show license all</b> <b>Example:</b> <pre>Device# show license all</pre>	(Optional) Displays summary information about all licenses.

## Smart License Disable

### SUMMARY STEPS

1. enable
2. configure terminal
3. no license smart enable
4. exit
5. write memory
6. reload
7. show license all

### DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	<b>enable</b>	Enables privileged EXEC mode.

	Command or Action	Purpose
	<b>Example:</b> <pre>Device&gt; enable</pre>	<ul style="list-style-type: none"> <li>Enter your password if prompted.</li> </ul>
<b>Step 2</b>	<b>configure terminal</b>  <b>Example:</b> <pre>Device# configure terminal</pre>	Enters global configuration mode.
<b>Step 3</b>	<b>no license smart enable</b>  <b>Example:</b> <pre>Device(config)# no license smart enable</pre>	Deactivates Smart Licensing on the device.  <b>Note</b> When you enable 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.
<b>Step 4</b>	<b>exit</b>  <b>Example:</b> <pre>Device(config)# exit</pre>	Exits the global configuration mode.
<b>Step 5</b>	<b>write memory</b>  <b>Example:</b> <pre>Device# write memory</pre>	Saves the running configuration to NVRAM.
<b>Step 6</b>	<b>reload</b>  <b>Example:</b> <pre>Device# reload</pre>	(Optional) Restarts the device to enable the new feature set.  <b>Note</b> Reload the device if you have not reloaded the device after configuring the Cisco One Suites.
<b>Step 7</b>	<b>show license all</b>  <b>Example:</b> <pre>Device# show license all</pre>	(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
<b>Step 1</b>	<b>enable</b>  <b>Example:</b> Device> enable	Enables privileged EXEC mode.  <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
<b>Step 2</b>	<b>license smart register idtoken <i>idtoken</i> [force]</b>  <b>Example:</b> Device# license smart register idtoken 123	Registers the device with the back-end server. Token id can be obtained from your virtual a/c in the Smart Licensing server.  <ul style="list-style-type: none"> <li>• <b>force:</b> To forcefully register your device irrespective of either the device is registered or not.</li> </ul> <p><b>Note</b> The device supplies the token ID to the Cisco server, which sends back a “Device Certificate” that is valid for 365 days.</p>
<b>Step 3</b>	<b>license smart deregister</b>  <b>Example:</b> Device# license smart deregister	Deregisters the device from the backend server.
<b>Step 4</b>	<b>license smart renew [ID   auth]</b>  <b>Example:</b> 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	<a href="#">Cisco IOS Master Commands List, All Releases</a>
Cisco License Manager Application	<i>User Guide for Cisco License Manager</i>
Software Activation Conceptual Overview	“Cisco IOS Software Activation Conceptual Overview” module
Software Activation Commands	<i>Software Activation Command Reference</i>
Integrated Services Routers Licensing	<i>Software Activation on Cisco Integrated Services Routers</i>

### 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:  <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>



**Technical Assistance**

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>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.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>

## 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](http://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 Cisco IOS XE Polaris 16.5.1	<p>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.</p> <p>This feature is platform-independent.</p> <p>The following commands were introduced or modified by this feature: <b>license smart enable</b>, <b>show license all</b></p>

