

# **Configuring Right-To-Use Licenses**

- Finding Feature Information, on page 1
- Restrictions for Right-To-Use AP-Count Licenses, on page 1
- Information About Configuring RTU Licenses, on page 2
- How to Configure RTU Licenses, on page 3
- Monitoring and Maintaining RTU Licenses, on page 5
- Examples: RTU Licenses Configuration, on page 8
- Additional References for RTU Licensing, on page 9
- Feature History and Information for RTU Licensing, on page 10

## **Finding Feature Information**

Your software release may not support all of the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release.

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

## **Restrictions for Right-To-Use AP-Count Licenses**

The following are the restrictions you must keep in mind when using license for the Cisco 5700 Series Wireless Controller:

- The license you have purchased is applicable only for the Cisco 5700 Series Wireless Controller. You cannot use the same license for the earlier version of the Cisco 5700 Series Wireless Controllers.
- The CLI commands that you run for the Cisco 5700 Series Wireless Controller are applicable only for these controllers. You cannot run these commands for the earlier version of the controllers.

## Information About Configuring RTU Licenses

### **Right-To-Use AP-Count Licensing**

Right-to-use licensing (RTU) allows you to order and activate a specific license type, and then to manage license usage on your controller.

You can order your controller with support for a specific number of adder access point count licenses, but the total number of licenses ordered should not exceed 25501000. You can also order your adder access point count licenses after receiving the controller.

For example, if you have ordered 25 50700 new adder licenses, you can add only those ordered adder licenses to the controller. The licenses can be added in increments of 1, but the total number of licenses added for the controller should not exceed 25 50 1000.

You can configure controller to manage the access point count licenses from the CLI and view the number of access points currently in use from both the CLI and GUI.

You can configure your switch to manage the access point count licenses and view the number of access points currently in use from the CLI.

The following are two different types of access point licenses:

- 1. Permanent licenses for the access points
  - Adder access point count license—You can purchase the adder license to increase the controller capacity at a later time. You can transfer the adder access point count license from one controller to another.
- 2. Evaluation licenses for the access points
  - You can activate these licenses to evaluate more access points before purchasing the licenses.
  - The maximum number of access points that can be evaluated is 2550 1000.
  - The evaluation period for using the access point licenses is 90 days.
  - You can activate and deactivate the evaluation licenses from the CLI.

### **Right-to-Use AP-Count Evaluation Licenses**

If you are considering upgrading to a license with a higher access point count, you can try an evaluation license before upgrading to a permanent version of the license. For example, if you are using a permanent license with a 50-access-point count and want to try an evaluation license with a 100-access-point count, you can try out the evaluation license for 90 days.

When an evaluation license is activated, the permanent AP-count licenses are ignored. The maximum supported licenses of 1000 access points are available for 90 days.

To prevent disruptions in operation, the controller does not change licenses when an evaluation license expires. A warning expiry message is displayed daily starting five days prior to the expiry date. After 90 days, the evaluation license expires with a warning message. You must disable the evaluation license and then purchase the permanent license.

When the controller reboots after the evaluation license expiry, the license defaults to a permanent license.

## **Right-To-Use Adder AP-Count Rehosting Licenses**

Revoking a license from one device and installing it on another is called rehosting. You might want to rehost a license to change the purpose of a device. For example, if you want to move your Office Extend or indoor access points to a different controller, you could transfer the adder ap-count license from one controller to another.

To rehost a license, you must deactivate the adder ap-count license from one device and activate the same license on another device.

Evaluation licenses cannot be rehosted.

## **How to Configure RTU Licenses**

## **Activating an AP-Count Evaluation License (CLI)**

When an evaluation license is activated, the maximum supported ap-count licenses are made available. A maximum of 1000 access points can be evaluated for 90 days by enabling the evaluation ap-count licenses.

#### **SUMMARY STEPS**

- 1. license right-to-use activate ap-count evaluation
- 2. show license right-to-use summary

#### **DETAILED STEPS**

	Command or Action	Purpose
Step 1	<pre>license right-to-use activate ap-count evaluation Example: Controller# license right-to-use activate ap-count evaluation</pre>	Enables the ap-count evaluation licenses on the controller. By default during activation, the EULA gets displayed. If the <b>acceptEULA</b> is passed, the EULA content is not displayed, and you can activate the evaluation license. This option is useful for automation and scripting.
Step 2	<pre>show license right-to-use summary Example: Controller# show license right-to-use summary</pre>	Verifies that the evaluation license is activated on the controller.

Example

## **Activating an AP-Count Permanent License**

You can deactivate an evaluation ap-count license and activate the permanent ap-count license on the controller.

After activating ap-count permanent or adder license, if the **show license right-to-use summary** command still shows evaluation ap-count licenses, then you must deactivate the previously used evaluation license that was not deactivated earlier. Deactivate the evaluation license to enable permanent or adder ap-count licenses.

#### **SUMMARY STEPS**

- 1. license right-to-use deactivate ap-count evaluation
- 2. show license right-to-use summary

#### **DETAILED STEPS**

	Command or Action	Purpose
Step 1	license right-to-use deactivate ap-count evaluation	Deactivates particular evaluation license level and activates the permanent ap-count licenses on the controller.
	Controller# license right-to-use deactivate ap-count evaluation	
Step 2	<pre>show license right-to-use summary Example: Controller# show license right-to-use summary</pre>	Verifies the number of permanent ap-count licenses activated on the controller.

### **Obtaining an Upgrade or Capacity Adder License**

You can use the capacity adder licenses to increase the number of access points supported by the controller.

#### **SUMMARY STEPS**

- 1. license right-to-use activate ap-count ap-number slot 1
- 2. show license right-to-use summary

#### **DETAILED STEPS**

	Command or Action	Purpose
Step 1       license right-to-use activate ap-count ap-number slot 1       Obtains an upgrade or adding new adder lice         Example:       Controller# license right-to-use activate ap-count       Obtains an upgrade or adding new adder lice	license right-to-use activate ap-count <i>ap-number</i> slot 1	Obtains an upgrade or increases the license capacity by
	adding new adder licenses.	
	Controller# license right-to-use activate ap-count 500 slot 1	
Step 2	show license right-to-use summary	Verifies the number of permanent ap-count licenses
	Example:	activated on the controller.
	Controller# show license right-to-use summary	

### Transferring Licenses to a Replacement Controller after an RMA

The replacement controller comes with same permanent ap-count licences.

#### **SUMMARY STEPS**

- 1. license right-to-use deactivate ap-count count slot 1 acceptEULA
- 2. license right-to-use activate ap-count count slot 1 acceptEULA
- 3. show license right-to-use summary

#### **DETAILED STEPS**

	Command or Action	Purpose
Step 1	license right-to-use deactivate ap-count <i>count</i> slot <i>l</i> acceptEULA	Deactivates the permanent ap-count licenses on earlier controller to be replaced.
	Example:	
	Controller# license right-to-use deactivate ap-count 55 slot 1 acceptEULA	
Step 2	license right-to-use activate ap-count <i>count</i> slot <i>l</i> acceptEULA	Activates the same permanent ap-count licenses on the replacement controller.
	Example:	
	Controller# license right-to-use activate ap-count 55 slot 1 acceptEULA	
Step 3	show license right-to-use summary	Verifies the number of ap-count licenses points activate
	Example:	on the replacement controller.
	Controller# show license right-to-use summary	

## **Configuring Right-To-Use Licenses (GUI)**

**Step 1** Choose Administration > Software Activation > Licenses to open the Licenses page.

**Step 2** In the License Activation area, choose Activate or Deactivate from the License drop box and enter the number of adder licenses you want to activate or deactive in the License Adder of AP-Count (1 to 1000) text box.

Step 3 Click Apply and Save Configuration.

## **Monitoring and Maintaining RTU Licenses**

### Viewing Right-To-Use AP-Count Licenses (GUI)

You can view the details of access point licenses installed on the controller using the Licenses and License Usage pages from the controller GUI.

 Step 1
 Choose Administration > Software Activation > Licenses.

 Example:

The Licenses page appears.

This page lists all of the access point licenses installed on the controller. You can view the following details for the license:

- License name
- · License type (adder, permanent, or evaluation)
- Count (the maximum number of access points allowed for this license)
- Period left for the license

In addition, you can view the following details of the AP-Count licenses:

- Whether the ap-count license is enabled or not
- · The maximum number of access points allowed for this license
- The number of access points currently using this license
- · The remaining ap-count licenses

**Step 2** Choose Administration > Software Activation > License Usage.

#### Example:

The License Usage page appears.

In the License Usage page, you can view the consolidated list of all of the licenses based on their usage duration, use of the license, and the end-user license agreement (EULA) acceptance state.

#### **Step 3** Choose Administration > Software Activation > Eula > Adder, Evaluation, or Permanent.

#### Example:

The Eula page for the selected license appears.

You can read the terms and the conditions for the Adder, Evaluation, or Permanent license.

### Viewing Right-To-Use AP-Count Licenses (CLI)

You can view the detailed information of ap-count licenses installed on the controller using the **show license right-to-use** commands from the controller CLI.

#### **SUMMARY STEPS**

- 1. show license right-to-use detail
- 2. show license right-to-use detail | output modifiers
- 3. show license right-to-use eula
- 4. show license right-to-use
- 5. show license right-to-use usage
- 6. show license right-to-use | output modifiers
- 7. show license right-to-use summary

#### **DETAILED STEPS**

	Command or Action	Purpose	
Step 1	show license right-to-use detail	Displays details of all of the licenses installed on the stack	
	Example:	1.	
	Controller# show license right-to-use detail		
Step 2	show license right-to-use detail   <i>output modifiers</i> Example:	Displays the details of licenses based on the filtered search using output modifiers such as append, begin, count,	
	Controller# show license right-to-use detail   append <url></url>	Appends the redirected license information output to URL.	
	Example: Controller# show license right-to-use detail	The URLs supporting append operation are crash information, flash, FTP, HTTP, HTTPS, NVRAM, RCP, SCP, TFTP, UNIX, and USB flash0.	
	Example:	Displays the license information that begins with the lines which match the regular expression.	
	Controller# show license right-to-use detail   count ap	Displays the number of lines that match the regular expression.	
	EXAMPLE: Controller# show license right-to-use detail   exclude ap	Displays the details of license information that excludes lines which match the regular expression.	
Example: Controller# show license right-to-use deta format <spec file="" location=""> Example: Controller# show license right-to-use deta include apcount</spec>	Example: Controller# show license right-to-use detail	Displays the details of license information based on the format specified in the spec file.	
	<pre>format <spec file="" location=""></spec></pre>	Displays the lines that match the regular expression.	
	Example: Controller# show license right-to-use detail   include apcount	Redirects the license information output to URL. The URLs that support the redirect operation are crash information, flash FTP HTTP HTTPS NVRAM RCP SCP TFTP	
	Example:	UNIX, and USB flash0.	
	Controller# show license right-to-use detail   redirect <url></url>	Filters the section of the license information output based on the include, exclude, or other regular expression options	
	Example:	specified.	
	Controller# show license right-to-use detail   section include apcount	Copies the license information output to URL. The URLs that support the copy operation are crash information, flash,	
Controller# show license right-to-use section exclude apcount Controller# show license right-to-use section license Example: Controller# show license right-to-use <url></url>	Controller# show license right-to-use detail   section exclude apcount	FTP, HTTP, HTTPS, NVRAM, RCP, SCP, TFTP, UNIX and USB flash0.	
	section license		
	Example:		
	Controller# show license right-to-use detail   tee <url></url>		
Step 3	show license right-to-use eula	Displays the EULA content for the adder, evaluation, and	
	Example:	permanent AP-count licenses.	
	Controller# show license right-to-use eula adder Controller# show license right-to-use eula evaluation		

	Command or Action	Purpose
	Controller# show license right-to-use eula permanent	
Step 4	show license right-to-use	Displays the licenses that got activated with EULA.
	Example: Controller# show license right-to-use	
Step 5	show license right-to-use usage	Displays the usage details of all licenses.
	Example: Controller# show license right-to-use usage	
Step 6	<pre>show license right-to-use   output modifiers Example: Controller# show license right-to-use   append</pre>	Displays the details of licenses based on the filtered search using output modifiers such as append, begin, count, exclude, format, include, redirect, section, and tee.
Step 7	show license right-to-use summary	Displays the summary of licenses that are currently in use.
	Example: Controller# show license right-to-use summary	

## **Examples: RTU Licenses Configuration**

This example shows how to activate an ap-count evaluation license:

```
Controller# license right-to-use activate ap-count evaluation
Controller# show license right-to-use summary
```

This example shows how to activate an ap-count permanent license:

Controller# license right-to-use deactivate ap-count evaluation Controller# show license right-to-use summary

This example shows how to obtain an upgrade or adder license:

Controller# license right-to-use activate ap-count 700 slot 1 Controller# show license right-to-use summary

This example shows how to transfer licenses to a replacement controller after an RMA. Deactivate the licenses from the controller to be replaced and activate or add the same number of licenses in the replacement controller:

Controller# license right-to-use deactivate ap-count 250 slot 1

```
Controller# license right-to-use activate ap-count 250 slot 1
Controller# show license right-to-use summary
```

# **Additional References for RTU Licensing**

#### **Related Documents**

Related Topic	Document Title
For complete syntax and usage information for the commands used in this chapter.	System Management Command Reference (Catalyst 3850 Switches)System Management Command Reference (Cisco WLC 5700 Series)System Management Command Reference (Catalyst 3650 Switches)
RTU AP image preload feature	System Management Configuration Guide (Cisco WLC 5700 Series)

#### **Standards and RFCs**

Standard/RFC	<b>Title</b>
None	_

#### MIBs

MIB	MIBs Link
All supported MIBs for this release.	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.	http://www.cisco.com/support
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.	
Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	

# **Feature History and Information for RTU Licensing**

Release	Feature Information
Cisco IOS XE 3.2SECisco IOS XE 3.3SE	This feature was introduced.