



# Ruckus Wireless™ SmartLicense

## User Guide

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[www.ruckuswireless.com](http://www.ruckuswireless.com)

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# About This Guide

This *SmartLicense User Guide* provides step-by-step instructions for activating and binding controller right to use licenses, AP management and tunnel capacity licenses, Ruckus support entitlements and Local License Server (LLS) software licenses to a Ruckus RuckOS wireless LAN controller device. This guide is intended for use by those responsible for managing Ruckus Wireless network equipment. Therefore, it assumes basic working knowledge of Ruckus Wireless controller and Access Point products.

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**NOTE** If release notes are shipped with your product and the information there differs from the information in this guide, follow the instructions in the release notes.

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Most user guides and release notes are available in Adobe Acrobat Reader Portable Document Format (PDF) or HTML on the Ruckus Wireless Support website at <https://support.ruckuswireless.com/documents>.

# Document Conventions

Table 1 and Table 2 list the text and notice conventions that are used throughout this guide.

Table 1. Text conventions

Convention	Description	Example
monospace	Represents information as it appears on screen	[Device name]>
<b>monospace bold</b>	Represents information that you enter	[Device name]> <b>set ipaddr 10.0.0.12</b>
<b>default font bold</b>	Keyboard keys, software buttons, and field names	On the <b>Start</b> menu, click <b>All Programs</b> .
<i>italics</i>	Screen or page names	Click <b>Advanced Settings</b> . The <i>Advanced Settings</i> page appears.

Table 2. Notice conventions

Notice Type	Description
<b>NOTE</b>	Information that describes important features or instructions
<b>CAUTION!</b>	Information that alerts you to potential loss of data or potential damage to an application, system, or device
<b>WARNING!</b>	Information that alerts you to potential personal injury

## Related Documentation

In addition to this *User Guide*, each SmartLicense documentation set includes the following:

- *SmartZone 100 Quick Start Guide*: Provides a summary of the steps for activating and binding licenses to your Ruckus customer account, and applying them to a SmartZone 100 controller. The Quick Start Guide provides a summary of the information included in this User Guide, and is available for download on the Ruckus Wireless Support website at <http://support.ruckuswireless.com>.
- *Local License Server User Guide*: Provides comprehensive instructions for installing and managing a Local License Server at your site.

- *Local License Server Quick Start Guide*: Provides summarized steps for installing an LLS at your site.

## Documentation Feedback

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When contacting us, please include the following information:

- Document title
- Document part number (on the cover page)
- Page number (if appropriate)

For example:

- Ruckus Wireless SmartLicense User Guide
- Part number: 800-70779-001
- Page 88

# Introduction

# 1

In this chapter:

- [Introduction to the SmartLicense Platform](#)
- [About the Ruckus Support Portal](#)
- [About RuckOS Controllers](#)
- [About AP Capacity Licenses](#)

# Introduction to the SmartLicense Platform

The Ruckus Wireless SmartLicense platform provides a web-based process to allow customers and partners to activate purchased Ruckus controller and Access Point products, bind AP licenses and support entitlements to their customer accounts, and manage those entitlements using a centralized, single sign-on portal.

Customers can access the SmartLicense license server portal via the [support.ruckuswireless.com](http://support.ruckuswireless.com) site. By using a single-sign on service, the user does not need to remember multiple user IDs, passwords and URLs for accessing various services.

## About the Ruckus Support Portal

Each customer should have a Ruckus Support portal account (user name and password). This account can be used to access general Support site content including software upgrades, knowledge base articles and technical documents. If you do not have a Support portal account, you will be required to register one before continuing with your product and license activation.

## About RuckOS Controllers

Throughout this document, the term “RuckOS controller” or just “controller” refers to any Ruckus Wireless controller product running the RuckOS system firmware. Specifically, a RuckOS controller is one of the following Ruckus Wireless WLAN controller products:

- All SmartZone 100 controllers (SZ-100)
- virtual SmartCell Gateway (vSCG) virtual controllers running RuckOS 3.0 and higher

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**NOTE** RuckOS controllers include a limited time period after which they must be registered with Ruckus Wireless. You have 90 days to register your RuckOS device after completing the configuration wizard.

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## About AP Capacity Licenses

AP Capacity Licenses are managed via the Ruckus Support Portal, which provides a single sign-on interface to the SmartLicense platform.

The user has the ability to assign AP licenses to a RuckOS controller and to release them back to the license pool for assignment to another controller. To physically manage the distribution of licenses from the Support Portal to the actual controller requires one of the following three methods:

- Connect the controller directly to the Internet, allowing the controller to automatically (or manually) synchronize its licenses with the SmartLicense platform.
- Download the license file from the Support Portal and manually upload it to the specific controller.
- Deploy a Ruckus Local License Server (LLS) within your network. The LLS must be able to communicate with your Controller(s) and it must be connected to the Internet.

These three methods are described in the following sections:

- [Activating and Registering Your Purchases](#)
- [Using Manual Offline License Synchronization](#)
- [Using an LLS Server](#)

# Activating and Registering Your Purchases

# 2

In this chapter:

- [Activating the RuckOS Controller's Licenses](#)
- [Synchronizing the RuckOS Controller with LiMAN](#)

# Activating the RuckOS Controller's Licenses

The following section describes the steps required to activate and assign the AP and Tunnel Licenses using the LiMAN (license management) portal on the Ruckus Wireless Support site.

## Before You Begin

You must have a Ruckus Support portal account (including user name and password). You can use this account to access general Support site content including software upgrades, knowledge base articles and technical documents.

If you do not have a Support portal account, you will be required to register one before continuing with your product and license activation.

Every capacity and support license that you have purchased will have its own unique activation code and each must be activated for the license to become valid. You will receive the activation code in a separate Support Purchase Acknowledgment (SPA) email for each license/support license.

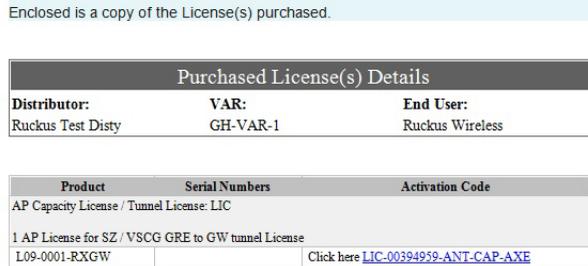
Depending on the product, you may receive up to three (3) different SPA emails for all of your licenses. The first three characters of the activation code indicate the license type to which the code is applicable.

- *LIC*: AP Capacity License
- *LIC*: AP Tunnel License
- *SUP*: Support License

## Activating a RuckOS Controller's License/Support License

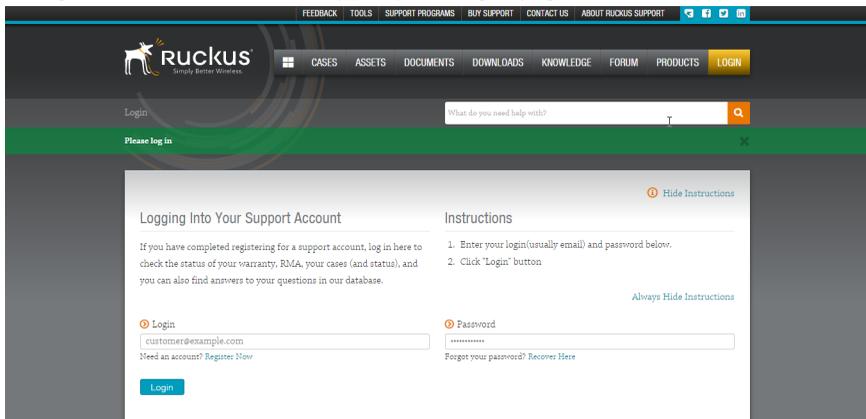
- 1 Open the SPA email that you received from Ruckus Wireless.

Figure 1. The SPA email from Ruckus Wireless



2 Log on to <https://support.ruckuswireless.com>.

Figure 2. Ruckus Wireless Support portal logon page



- 3 Have the serial number of your controller device ready.
- 4 Click the link in the SPA email.
- 5 Follow the onscreen instructions to activate the licenses purchased. When required, you will be prompted for your controller serial number.
- 6 It is important that you repeat steps #1 to #5 above for all licenses that you have purchased as this will simplify the "+License" workflow in [step #7](#) below.
- 7 After you finish activating all of your licenses, you need to assign them to your LiMAN account. Click the **LiMAN** button, which appears after a license has been successfully activated (see [Figure 3](#)).
  - If your device is listed, click its serial number and proceed to [step #8](#).

- If your device is NOT listed, click the **Register Smart Device** button (see [Figure 4](#)), enter your device's serial number, and then click the **Register Smart Device** button (see [Figure 5](#)).

Figure 3. Click the LiMAN button

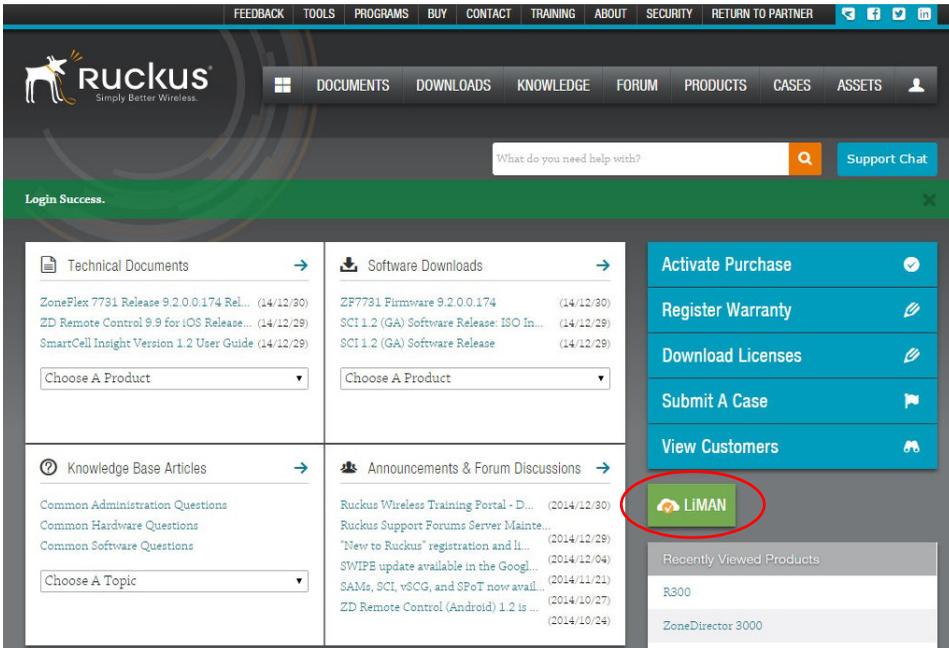


Figure 4. Click the serial number of your device or click Register Smart Device

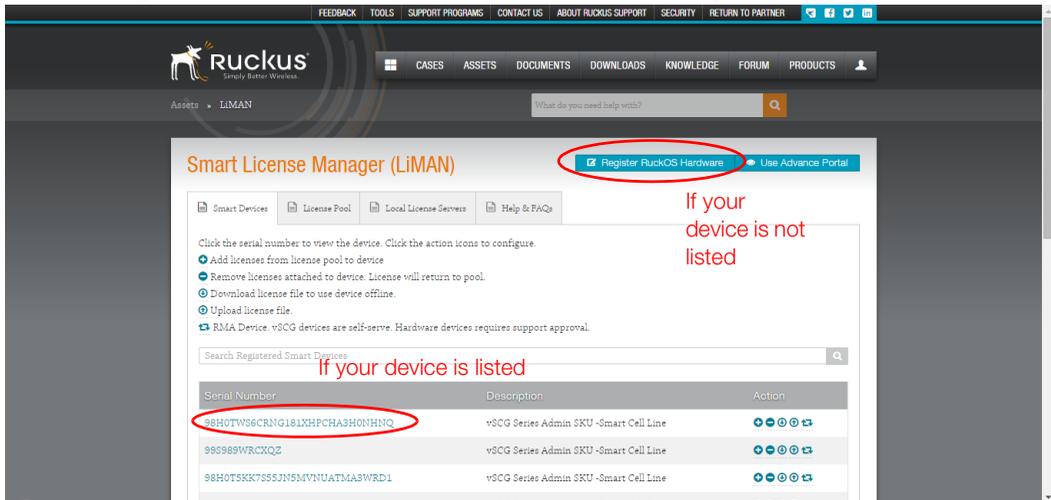
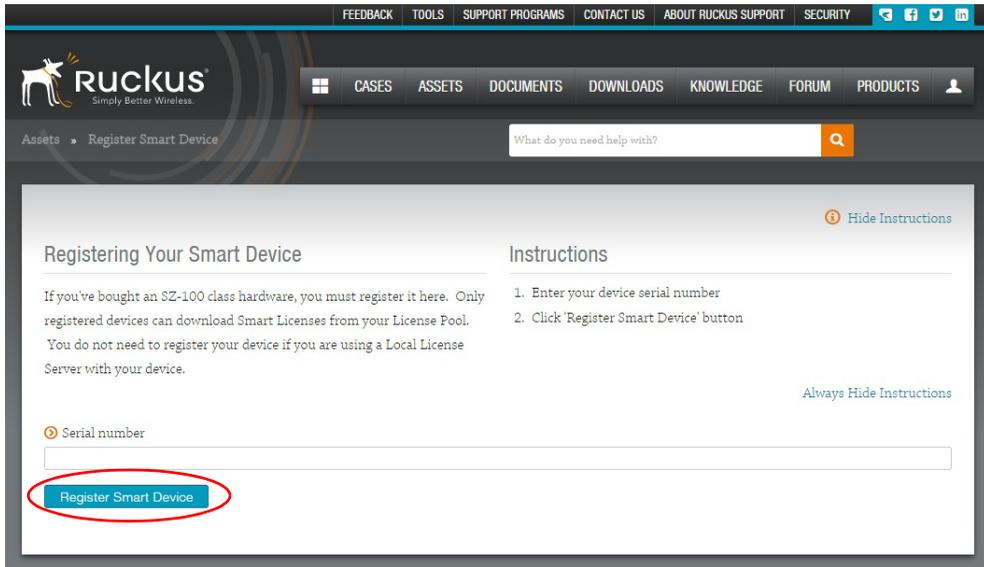


Figure 5. Enter your device's serial number and click Register Smart Device



**NOTE** For SZ-100 controllers, the serial number shall be 12 characters, for vSCG the serial number shall be 28 characters.

- 8 Click the **+ License** button (see [Figure 6](#)), enter the number of licenses to add in **Qty to Add**, and then click the **Add License** button (see [Figure 7](#)). Repeat for all licenses.

Figure 6. Click + License

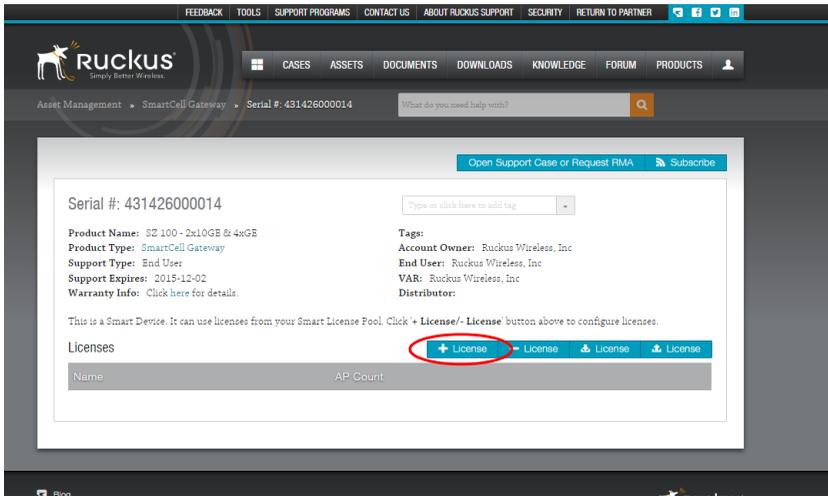
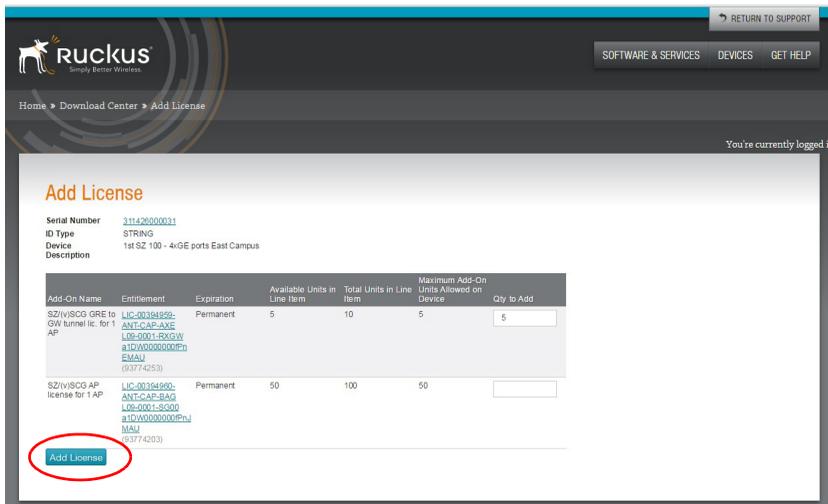


Figure 7. Enter the number of licenses to add in Qty to Add and click Add Licenses



You have completed activating a controller's licenses.

# Synchronizing the RuckOS Controller with LiMAN

After you have activated the controller's licenses on the Ruckus Wireless Support Portal, the controller must be synced with the Smart License server. This will enable the user's ability to assign licenses to and back from a RuckOS controller or assign them to another controller.

To physically manage the distribution of licenses from the Support Portal to the actual controller, do one of the following:

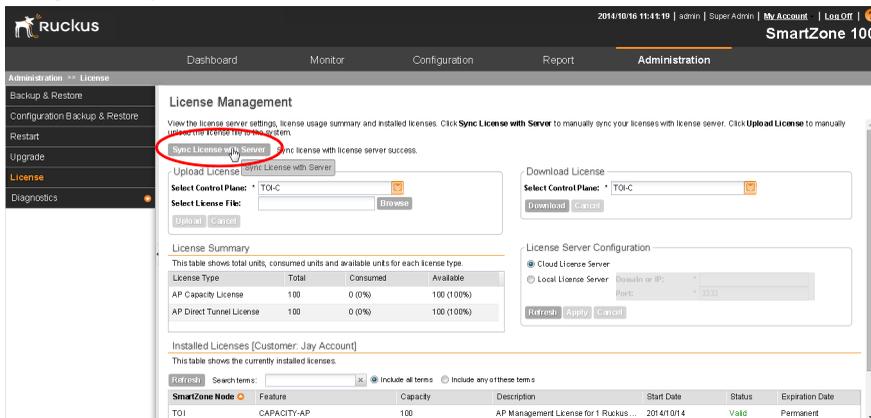
- Connect the controller directly to the Internet. On the SmartZone web interface, go to the *Administration > License page*, and then click the **Sync License with Server** button to sync the controller with the SmartLicense server.

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**NOTE** When RuckOS controllers are connected to the Internet, they will automatically synchronize license information with the SmartLicense cloud server once every 24 hours.

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Figure 8. Sync the controller with the SmartLicense server



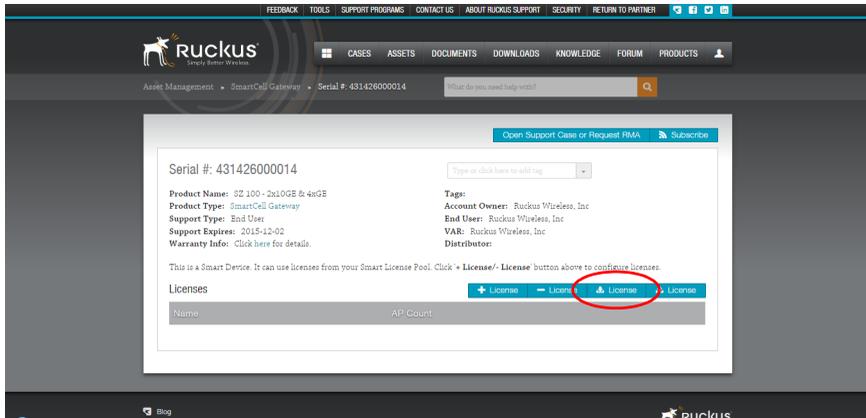
- Deploy a Ruckus Wireless Local License Server (LLS) within your network. The LLS must be able to communicate with your controller and it must be connected to the Internet. See [Using an LLS Server](#) for information on how to setup an LLS.
- In the event that the controller is disconnected from the Internet and you have not deployed an LLS, you can download the actual licenses from the Support Portal and manually upload them to the specific controller. See [Syncing Licenses on an Offline RuckOS Controller](#).

You have completed activating the capacity or support license for the controller device.

## Syncing Licenses on an Offline RuckOS Controller

- 1 In LiMAN, click the controller's serial number. The *View Device* page appears (see [Figure 9](#)).

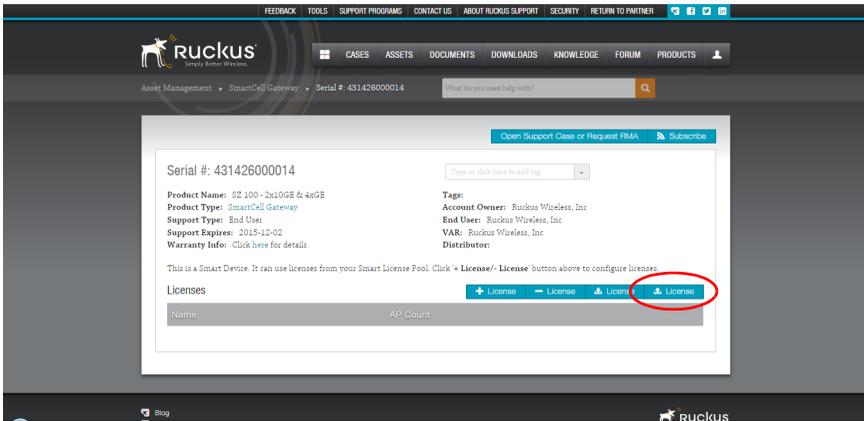
Figure 9. The View Device page



- 2 Click the **Download License File** button. The license file is saved to the client.
- 3 On the controller web interface, go to *Administration > License*. In the *Upload License* section (see [Figure 8](#)), click the **Browse** button, and then select the license file from your client to upload it to the controller.
- 4 On the controller web interface, go to *Administration > License*. In the *Download License* section, click the **Download** button to download the license file from the controller to your client.
- 5 Go back to the LiMAN portal on the Ruckus Wireless Support website, and then do the following:
  - a Go to the *View Device* page (see [Figure 9](#)).
  - b Click the **Upload License File** button (see [Figure 10](#)), and then select the license file from your client.
  - c Click **Send** to complete the offline License synchronization.

You have completed activating licenses on an offline controller.

Figure 10. Click the Upload License File button



# Managing Licenses Using LiMAN

# 3

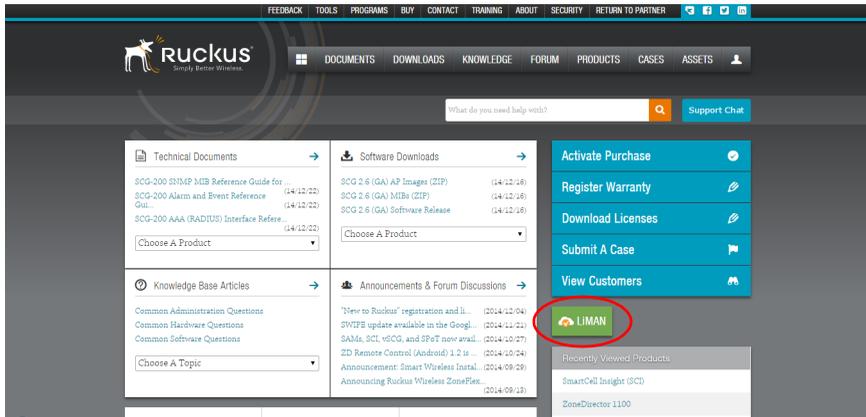
In this chapter:

- [Using the LiMAN License Management Portal](#)
- [Viewing Your Pool of Activated Licenses](#)
- [Adding and Removing Licenses](#)
- [Adding Licenses to a Controller](#)
- [Returning AP Licenses from a Controller to the License Pool](#)

# Using the LiMAN License Management Portal

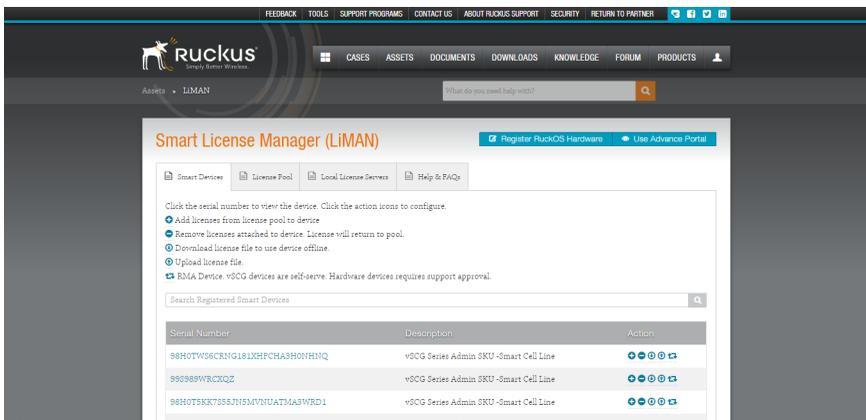
Use the LiMAN (License Management) portal to view a list of all your registered devices and device Add-ons, including AP management licenses, tunnel licenses, right to use licenses and support contracts.

Figure 11. Click the LiMAN button from the Support website to log into the LiMAN application



Clicking the **LiMAN** button opens the Smart License Manager (LiMAN) page. This page opens on the Smart Devices tab, which displays a list of all of the RuckOS controller devices registered to this customer account.

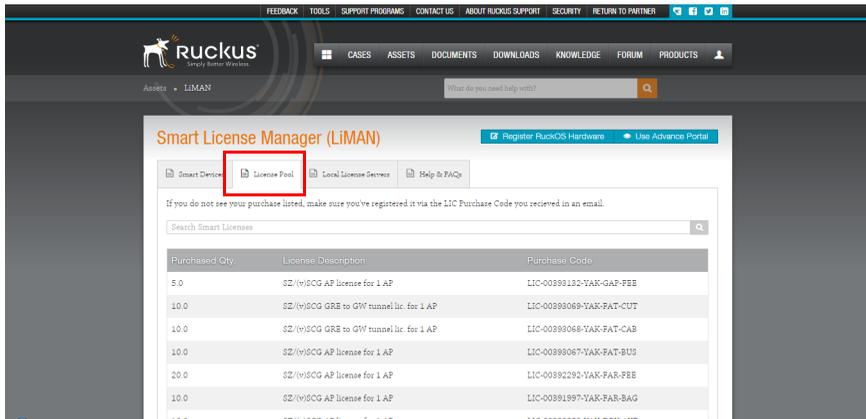
Figure 12. The Smart License Manager (LiMAN) page



# Viewing Your Pool of Activated Licenses

You can view a list of all of your activated licenses that exist in your license pool by clicking the **License Pool** tab near the top of the page.

Figure 13. The Smart License Manager (LiMAN) page



## Adding and Removing Licenses

There are two ways to manage licenses using LiMAN:

- [Manage Licenses from a Controller Device Page](#)
- [Manage Licenses Using Action Icons](#)

### Manage Licenses from a Controller Device Page

Click the controller's serial number link in the *Serial Number* column to view detailed information on and allocate licenses to/from a specific controller. From the controller's device overview page, you can perform several tasks including [Adding Licenses to a Controller](#) and [Returning AP Licenses from a Controller to the License Pool](#).

Figure 14. Click the device's serial number to view the device overview page

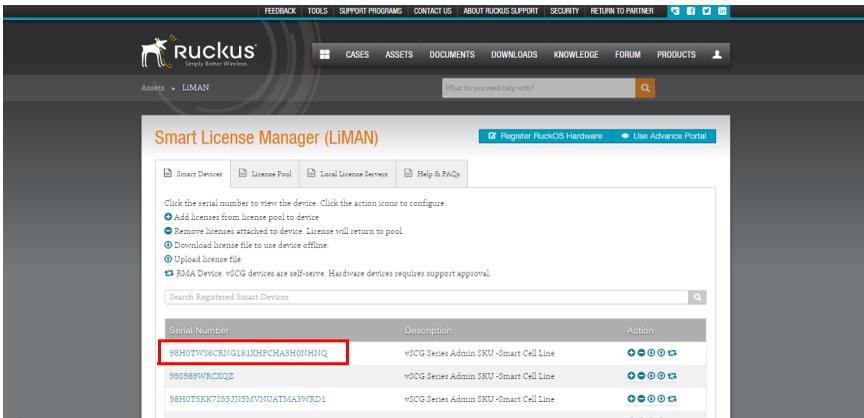
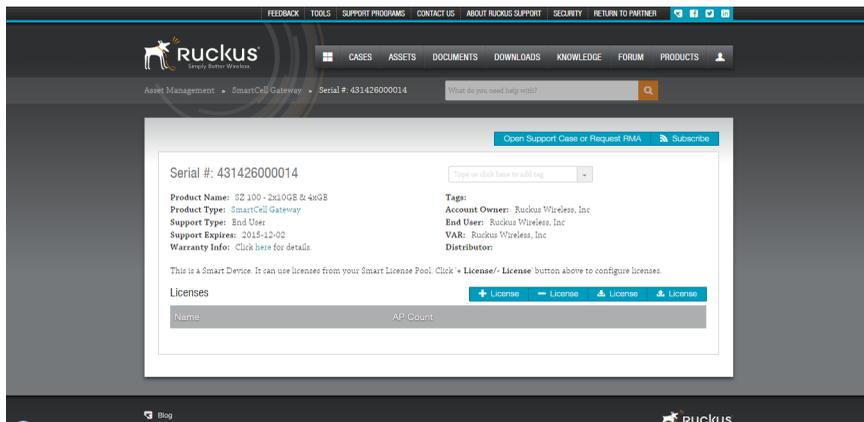


Figure 15. Device overview page



## Manage Licenses Using Action Icons

Use the icons in the *Action* column to manage licenses directly from the LiMAN main page. See [Table 1](#) for actions available from this page.

Table 1. LiMAN Action icons

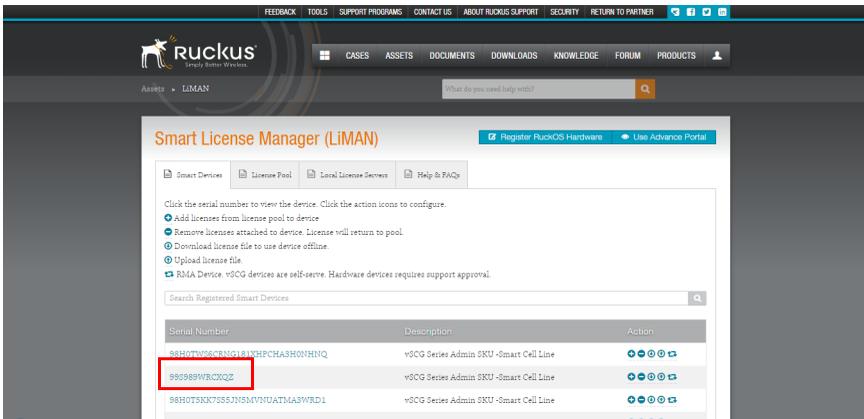
Icon	Name	Description
	Add Licenses	Add licenses from your pool of activated licenses to this controller. See <a href="#">Adding Licenses to a Controller</a> .
	Remove Licenses	Remove licenses from this controller and release them back into your unused license pool. See <a href="#">Returning AP Licenses from a Controller to the License Pool</a> .
	Download Licenses	Download a file to your local computer that can then be imported into an offline controller to sync licenses with LiMAN. See <a href="#">Syncing Licenses on an Offline RuckOS Controller</a> .
	Upload Licenses	Upload a file generated on the controller web interface for <a href="#">Syncing Licenses on an Offline RuckOS Controller</a> .
	RMA Device	vSCG devices are self-serve. Hardware devices requires support approval.

## Adding Licenses to a Controller

You can distribute any number of activated licenses from your license pool to any registered controller from the LiMAN landing page.

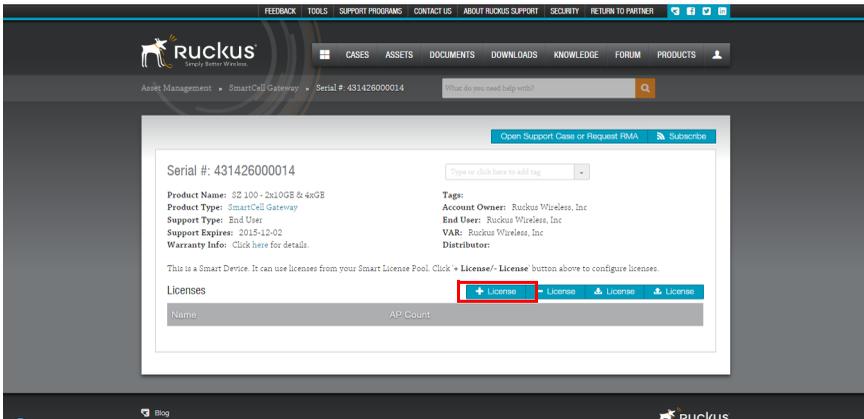
- 1 On the Smart License Management (LiMAN) page, select the controller from the list by clicking its serial number.

Figure 16. Click the controller's serial number to manage licenses for the specific device



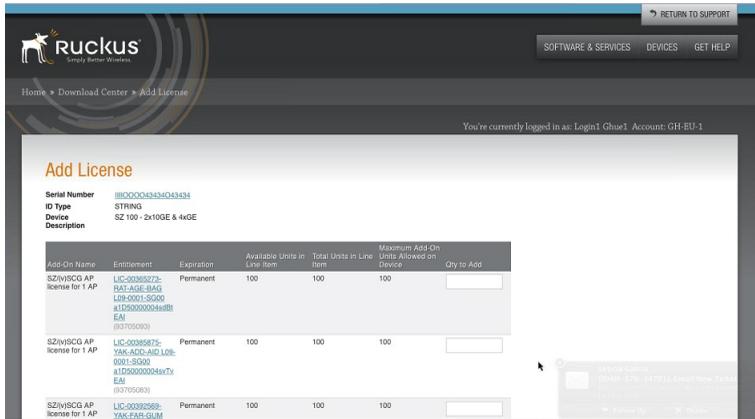
2 On the controller's device management page, click the **+ License** button.

Figure 17. Click + License to add licenses to this controller



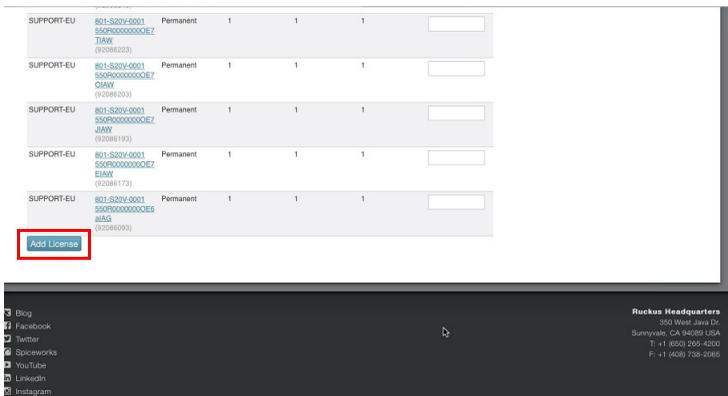
3 A list of activated licenses is displayed. In the **Qty to Add** column, enter the number of licenses to add to this controller.

Figure 18. Add License page



4 Scroll down to the bottom of the screen and click **Add Licenses** to save.

Figure 19. Add License - bottom



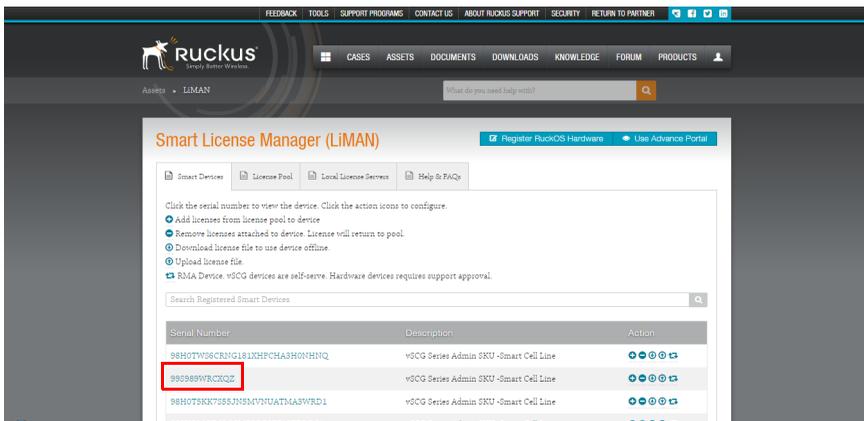
Alternatively, click the **+** (Add Licenses) icon to add licenses to this controller directly from the LiMAN page.

# Returning AP Licenses from a Controller to the License Pool

If you need to release licenses bound to a controller and allow them to be used elsewhere (on a different device), you can do so using the following procedure.

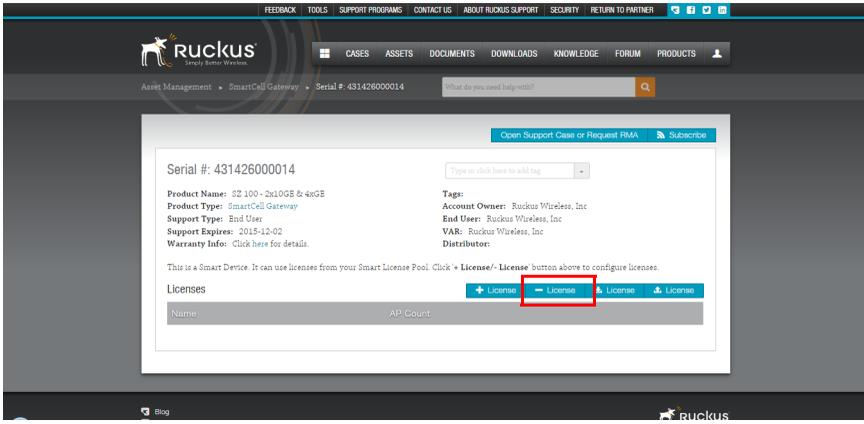
- 1 Click the LiMAN button on the Support portal to view the **Smart License Management (LiMAN)** page.
- 2 Select your controller from the list of devices by clicking its serial number.

Figure 20. Choose a controller from which to release licenses



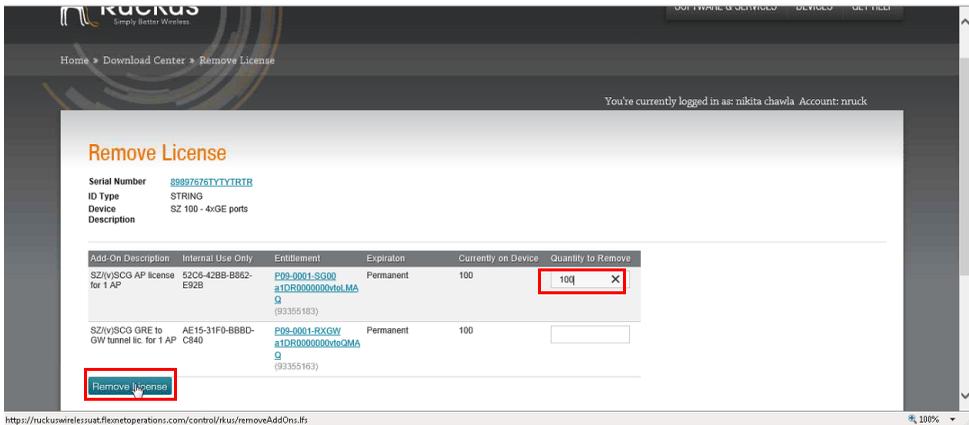
- 3 The device management page displays the list of licenses assigned to this controller.
- 4 Click the **- License** link.

Figure 21. Click - License to release a license from a controller



- 5 The Remove Licenses page appears.
- 6 In **Quantity to Remove**, enter the number of AP licenses to release back to your license pool.
- 7 Click **Remove Licenses**.

Figure 22. Release AP licenses to the license pool



- 8 An “Addons were successfully removed” message is displayed, and the device management screen is refreshed to display the updated list of allocated licenses.

Alternatively, click the  (Remove Licenses) icon to remove licenses from this controller directly from the LiMAN page.

You have finished returning licenses to the license pool. You can now associate these licenses to another controller as described in [Adding Licenses to a Controller](#), or view them along with other licenses in your license pool as described in [Viewing Your Pool of Activated Licenses](#).

# Using an LLS Server

# 4

In this chapter:

- [Local Licensing Server Overview](#)
- [Activating an LLS Server Right to Use License](#)

## Local Licensing Server Overview

The Local Licensing Server (LLS) provides an option for customers who prefer to maintain licenses on-site, rather than allowing the controller to connect to the SmartLicense cloud server for license activation.

For details on the LLS server installation, administration and maintenance, please refer to the *Local License Server User Guide*, available from [support.ruckuswireless.com](http://support.ruckuswireless.com).

This guide describes the steps required to activate and bind licenses to an LLS server only, and is not intended to replace the LLS User Guide.

## Activating an LLS Server Right to Use License

The majority of steps required for license activation with an LLS server are the same or similar to those described in the cloud-based SmartLicense activation procedures. The differences are mainly that you will need to perform one additional step - activating the LLS itself - and that once you have completed the activation, you can manage your licenses from the LLS web interface rather than using the LIMAN section of the Ruckus support site.

### Step 1: Activate your LLS right to use license

If you purchased an LLS right to use license, the first step you must perform is to activate the LLS RTU license. You should have received the LLS RTU email along with your other purchase confirmation emails. Open this email, and click the link to activate the right-to-use license.

Figure 23. Click the Activation Code link to activate your LLS right to use license

STEP 2 – “Download” your License for the Ruckus product(s) Click [Here](#) Or the individual link(s) associated with each code below

Problems with the link above? Copy and paste this into your browser <https://support.ruckuswireless.com>

Enclosed is a copy of the License(s) purchased.

Purchased License(s) Details		
Distributor:	VAR:	End User: lay Account 2

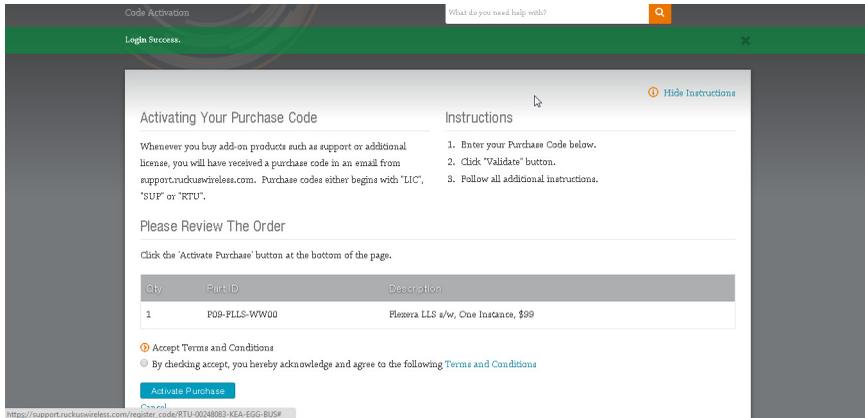
Product	Serial Numbers	Activation Code
Flex Licensing local license server s/w, one instance, \$99		
P09-FLLS-WW00		Click here <a href="#">RTU-00248083-KEA-EGG-BUS</a>

Ways to contact Ruckus Customer Support:

Clicking this link redirects you to the Support portal login page. Login as usual, and you will be redirected to the “Activate Purchase Code” page.

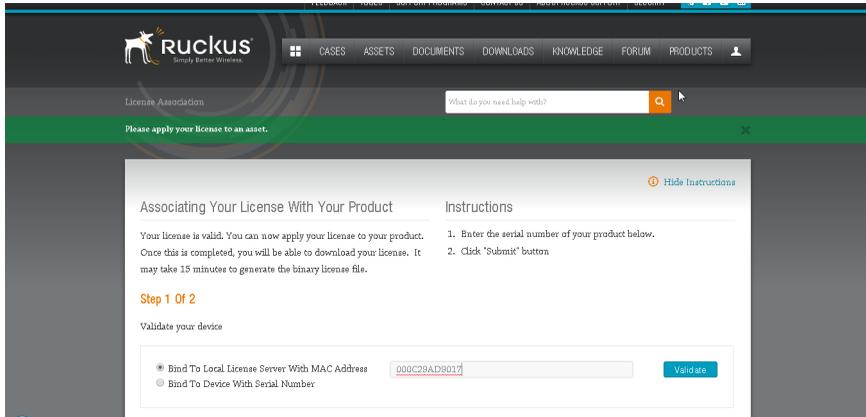
Accept the Terms and Conditions, and click **Activate Purchase**.

Figure 24. Activate Purchase Code page



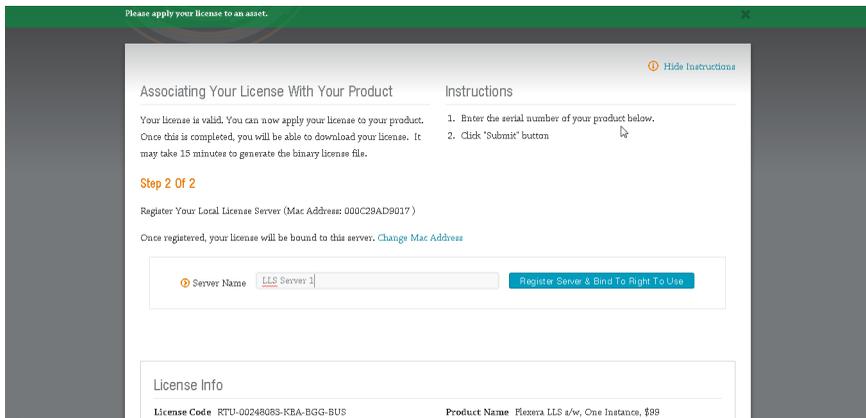
On the next page that appears, “Associating Your License with Your Product, Step 1 of 2,” select **Bind to Local License Server with MAC address**, enter the **MAC address** of your LLS server in the field provided, and click **Validate**.

Figure 25. Select Bind to LLS with MAC address, enter MAC address and click Validate



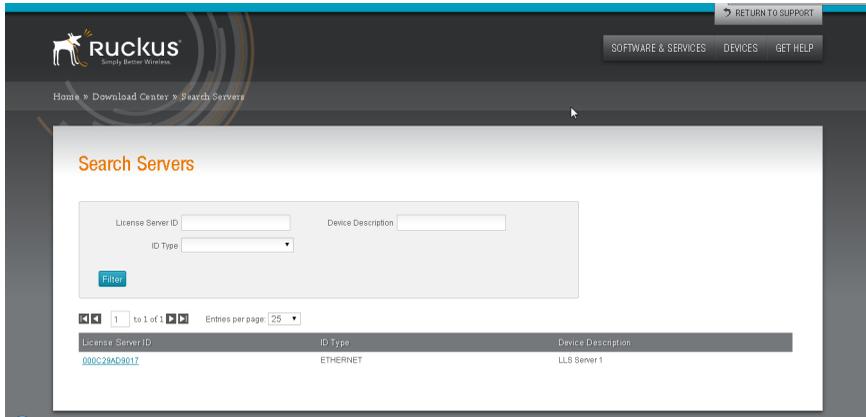
The next page that appears, “Associating Your License with your Product, Step 2 of 2,” asks you to enter a name for the LLS server. Enter a recognizable name for the LLS server in the **Server Name** field, and click **Register Server & Bind Right to Use**.

Figure 26. Enter a name for the LLS server and click button to register



Once activated, the LLS server appears in the list of servers associated with your Support account.

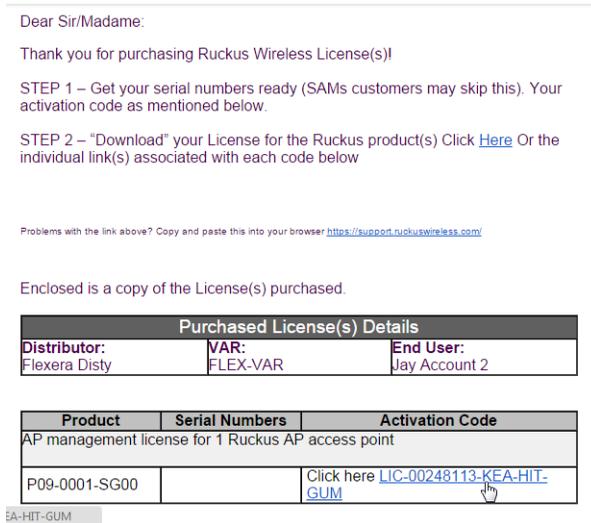
Figure 27. LLS server registered



## Step 2: Associate AP licenses with your LLS server

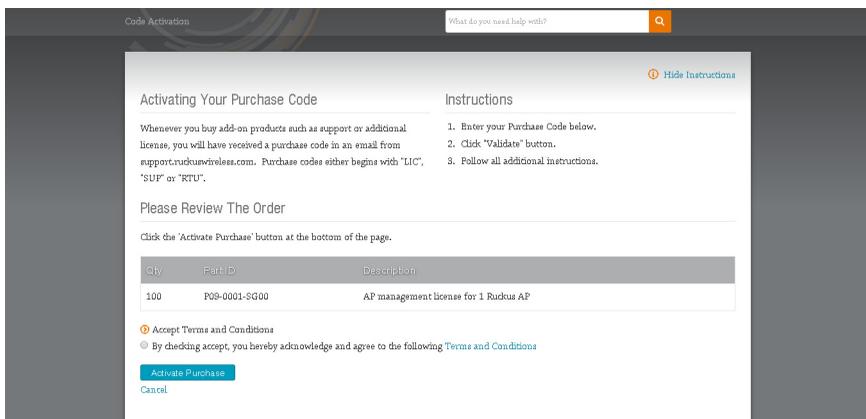
Open your AP Management activation email, and click the **Activation** link.

Figure 28. Click the activation link from the AP Management license purchase confirmation email



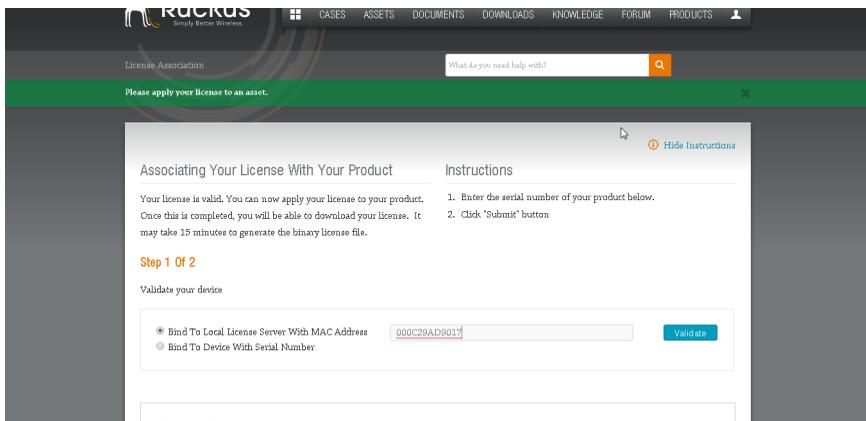
The first page that appears after clicking the AP license activation link is the “Activating Your Purchase Code” page. Click the check box to accept the Terms and Conditions, and click **Activate Purchase** to continue.

Figure 29. Click Activate Purchase to confirm your AP license activation



When the “Associating Your Licenses with a Product (Step 1 of 2)” page appears, select **Bind to LLS with MAC address**, enter the LLS server’s MAC address and click **Validate**.

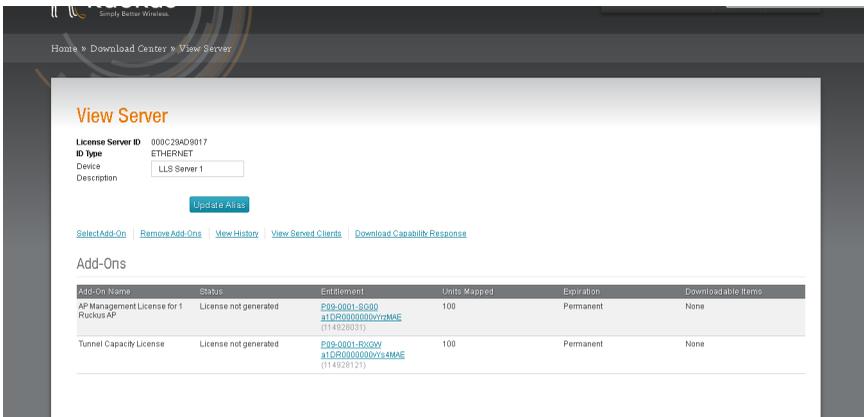
Figure 30. Bind to LLS with MAC address



At this point, the AP licenses are now bound to the LLS server. The Search Servers screen displays a link to your LLS server. Click this link to view the licenses bound to this LLS server, and you will see the AP license entry in the list.



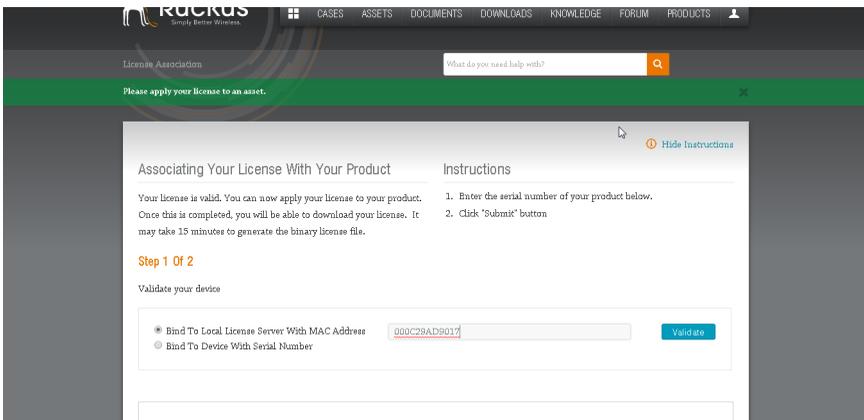
Figure 33. Tunnel Capacity licenses bound



## Step 4: Activate Support Entitlement for the LLS Server

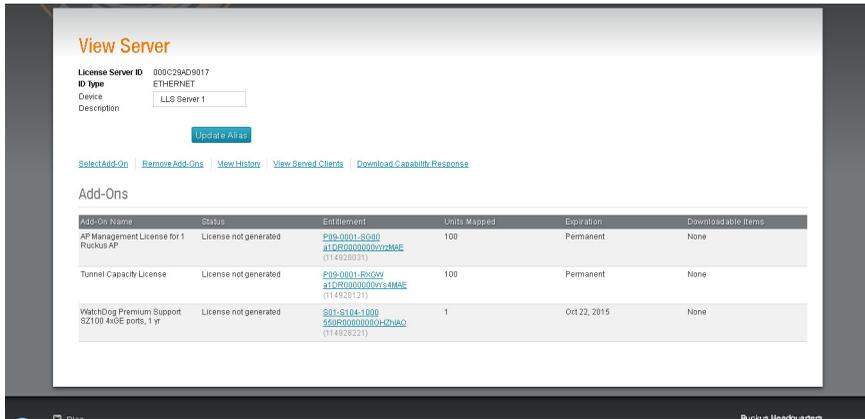
Perform the Support Entitlement activation procedure described in [Step 4: Activate Support Entitlement for the LLS Server](#) to bind Support entitlement to your LLS server. The one difference in the procedure is, when you get to the “Associating Your License with Your Product” page, choose **Bind to Local License Server with MAC Address**, rather than *Bind to Device with Serial Number*, as shown in [Figure 34](#).

Figure 34. Bind to Support Entitlement to Local License Server



When finished, the View Server screen will display the Support Entitlement, along with AP Management and Tunnel Capacity licenses, bound to your LLS server.

Figure 35. View Server screen with all (AP, tunnel, support) licenses bound



## Step 5: Log into your LLS and download license information from the cloud server

The final step is to log into your LLS server, sync the LLS data with the cloud SmartLicense server, and confirm that the licenses have been allocated to your LLS successfully.

Log into your LLS server (see *Local Licensing Server User Guide* for instructions), and go to the **Properties and Status page**. Scroll down to the bottom of the page and click **Save**.

---

**NOTE** If the LLS is connected to the Internet, the LLS will automatically sync with the Smart License Cloud server once every 24 hours.

---

Figure 36. Click Save on your LLS server Properties and Status page to sync with cloud server

Sync to back office page size	50	Number of deduction records to include per synchronization message to the back-office server.
Sync to back office retry count	4	Number of times to retry sending synchronization messages to the back-office server after a failed attempt.
Sync to back office retry interval	5.0 min	Interval between attempts to re-send synchronization messages to the back-office server after a failed attempt.
Historical usage data enabled	Yes	Indicates whether the FNE server sends historical usage data to the back-office server.
<b>Sync from back office properties</b>		
Sync from back office enabled	Yes	Indicates whether the FNE server attempts to synchronize its license distribution state from the back-office server when restarting after server failure.
Sync from back office page size	100	Number of device records to include per synchronization message from the back-office server.
Sync from back office retry count	4	Number of times to retry sending synchronization-request messages to the back-office server after a failed attempt.
Sync from back office retry interval	100	Interval, in seconds, between retrying failed attempts to contact the back-office server for synchronization messages.
<b>Sync to FNE properties</b>		
Sync to FNE enabled	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/>	Select Yes to synchronize the FNE server's license distribution state to a backup FNE server.
<b>Falover properties</b>		
Main server URI	<input type="text"/>	If using falover, main server in format "server:port/fne/bin/capability".
Backup server URI	<input type="text"/>	If using falover, backup server in format "server:port/fne/bin/capability".
<b>Error log properties</b>		
External destination of log messages	System (Linux only)	Destination of log messages.
Log level	<input checked="" type="checkbox"/> Error <input checked="" type="checkbox"/> Warn <input checked="" type="checkbox"/> Info <input type="checkbox"/> Debug	Select the log levels you want to include in the logs.
<b>Access log properties</b>		
External destination of log messages	System (Linux only)	Destination of log messages.

Requires FNE Server restart.

Next, go to the **Feature Usage** page to verify that the licenses have been properly synchronized with the SmartLicense server in the cloud.

Figure 37. Click Feature Usage

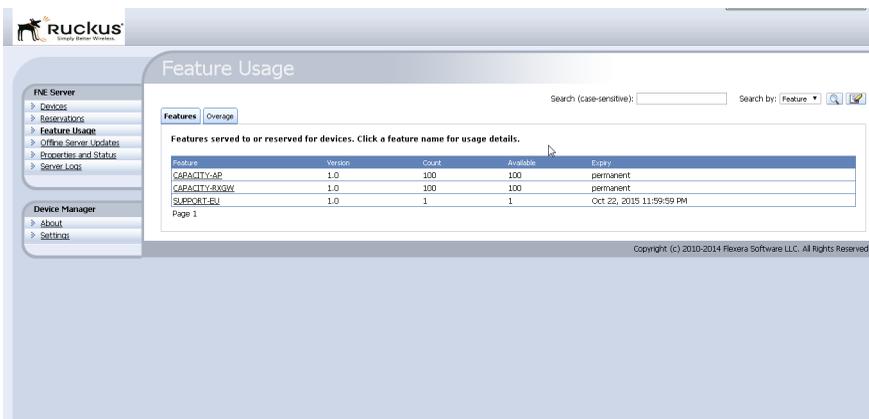
**Ruckus**  
Using Server Assets

### FNE Server Properties and Status

Properties | Status

Property	Value	Description
Server Host ID	0002AD9017 (ETHERNET)	Server's host ID used when fulfilling served licenses with the back office. If multiple IDs are available, select the one registered with the back-office server.
<b>General properties</b>		
Listen TCP/IP address(es)	0.0.0.0:0.0.0.0	Semicolon-separated list of IPv6 and IPv4 addresses used for listening to device requests. Default "0.0.0.0:0.0.0.0" accepts any address.
Listen port	3333	Port number (Range: 1-65535) for listening to device requests.
Back-office server	inclusionless.fluonoperal	Host name or IP address of the back-office server from which licenses are obtained.
Back-office server port	443	Back-office server port number (1-65535).
Back-office server endpoint	/control/fne/deviceservices	Back-office server URI where requests are sent.
Refresh interval	300	Refresh interval (in seconds). Minimum value is 60 seconds.
XML access permission	Remote	Simple security setting indicating permissions for XML-based server access. "Remote" allows XML endpoint access from remote systems, while "Local" restricts access to the local system.
Server name		Current server name. Used only for display and logging purposes.
Server inform usage enabled	No	Is server inform usage enabled?
Virtual clients enabled	Yes	Indicates whether the FNE server supports clients running on a virtual machine.
Virtual host enabled	Yes	Indicates whether the FNE server can be run on a virtual machine.
Overage control enabled	No	Indicates whether server accepts back-office updates containing a license count less than the outstanding served/buffer license count.
<b>Back-office poll properties</b>		
Back-office poll enabled	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/>	Select Yes to enable periodic requests to check for updated license rights.
	60	How often, in seconds, server contacts the back office to check for updated licenses.

Figure 38. Go to Feature Usage to verify all licenses have been activated



Congratulations! You have successfully activated and bound your purchased licenses to your LLS server.

For more information on LLS administration and management, see the *Local Licensing Server User Guide*.



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