COMMSCOPE" RUCKUS®

ADMINISTRATION GUIDE

Cloudpath Enrollment System Alexa Voucher Configuration Guide, 5.9

Supporting Cloudpath Software Release 5.9

Copyright, Trademark and Proprietary Rights Information

© 2021 CommScope, Inc. All rights reserved.

No part of this content may be reproduced in any form or by any means or used to make any derivative work (such as translation, transformation, or adaptation) without written permission from CommScope, Inc. and/or its affiliates ("CommScope"). CommScope reserves the right to revise or change this content from time to time without obligation on the part of CommScope to provide notification of such revision or change.

Export Restrictions

These products and associated technical data (in print or electronic form) may be subject to export control laws of the United States of America. It is your responsibility to determine the applicable regulations and to comply with them. The following notice is applicable for all products or technology subject to export control:

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

Disclaimer

THIS CONTENT AND ASSOCIATED PRODUCTS OR SERVICES ("MATERIALS"), ARE PROVIDED "AS IS" AND WITHOUT WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED. TO THE FULLEST EXTENT PERMISSIBLE PURSUANT TO APPLICABLE LAW, COMMSCOPE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, FREEDOM FROM COMPUTER VIRUS, AND WARRANTIES ARISING FROM COURSE OF DEALING OR COURSE OF PERFORMANCE. CommScope does not represent or warrant that the functions described or contained in the Materials will be uninterrupted or error-free, that defects will be corrected, or are free of viruses or other harmful components. CommScope does not make any warranties or representations regarding the use of the Materials in terms of their completeness, correctness, accuracy, adequacy, usefulness, timeliness, reliability or otherwise. As a condition of your use of the Materials, you warrant to CommScope that you will not make use thereof for any purpose that is unlawful or prohibited by their associated terms of use.

Limitation of Liability

IN NO EVENT SHALL COMMSCOPE, COMMSCOPE AFFILIATES, OR THEIR OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, SUPPLIERS, LICENSORS AND THIRD PARTY PARTNERS, BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER, EVEN IF COMMSCOPE HAS BEEN PREVIOUSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN AN ACTION UNDER CONTRACT, TORT, OR ANY OTHER THEORY ARISING FROM YOUR ACCESS TO, OR USE OF, THE MATERIALS. Because some jurisdictions do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of liability for consequential or incidental damages, some of the above limitations may not apply to you.

Trademarks

ARRIS, the ARRIS logo, COMMSCOPE, RUCKUS, RUCKUS WIRELESS, the Ruckus logo, the Big Dog design, BEAMFLEX, CHANNELFLY, FASTIRON, ICX, SMARTCELL and UNLEASHED are trademarks of CommScope, Inc. and/or its affiliates. Wi-Fi Alliance, Wi-Fi, the Wi-Fi logo, Wi-Fi Certified, the Wi-Fi CERTIFIED logo, Wi-Fi Protected Access, the Wi-Fi Protected Setup logo, Wi-Fi Protected Setup, Wi-Fi Multimedia and WPA2 and WMM are trademarks or registered trademarks of Wi-Fi Alliance. All other trademarks are the property of their respective owners.

Contents

Preface	4
Contacting RUCKUS Customer Services and Support	4
Document Feedback	5
RUCKUS Product Documentation Resources	5
Online Training Resources	5
Document Conventions	5
Command Syntax Conventions	. 6
Introduction to Using Alexa to Receive Vouchers	6
Binding Alexa to the Cloudpath Enrollment System	7
Setting Up the Alexa Workflow	8
User Experience With Alexa Vouchers	10
Administrative Information for Alexa Vouchers	11
Binding, Unbinding, and Obtaining Log Files	.11
Examining Alexa Vouchers	12
Alexa API Key	13
Notifications	13

Preface

Contacting RUCKUS Customer Services and Support

The Customer Services and Support (CSS) organization is available to provide assistance to customers with active warranties on their RUCKUS products, and customers and partners with active support contracts.

For product support information and details on contacting the Support Team, go directly to the RUCKUS Support Portal using https://support.ruckuswireless.com, or go to https://www.ruckuswireless.com and select **Support**.

What Support Do I Need?

Technical issues are usually described in terms of priority (or severity). To determine if you need to call and open a case or access the self-service resources, use the following criteria:

- Priority 1 (P1)—Critical. Network or service is down and business is impacted. No known workaround. Go to the Open a Case section.
- Priority 2 (P2)—High. Network or service is impacted, but not down. Business impact may be high. Workaround may be available. Go to the **Open a Case** section.
- Priority 3 (P3)—Medium. Network or service is moderately impacted, but most business remains functional. Go to the **Self-Service Resources** section.
- Priority 4 (P4)—Low. Requests for information, product documentation, or product enhancements. Go to the Self-Service Resources section.

Open a Case

When your entire network is down (P1), or severely impacted (P2), call the appropriate telephone number listed below to get help:

- Continental United States: 1-855-782-5871
- Canada: 1-855-782-5871
- Europe, Middle East, Africa, Central and South America, and Asia Pacific, toll-free numbers are available at https://support.ruckuswireless.com/contact-us and Live Chat is also available.
- Worldwide toll number for our support organization. Phone charges will apply: +1-650-265-0903

We suggest that you keep a physical note of the appropriate support number in case you have an entire network outage.

Self-Service Resources

The RUCKUS Support Portal at https://support.ruckuswireless.com offers a number of tools to help you to research and resolve problems with your RUCKUS products, including:

- Technical Documentation-https://support.ruckuswireless.com/documents
- Community Forums—https://forums.ruckuswireless.com/ruckuswireless/categories
- Knowledge Base Articles—https://support.ruckuswireless.com/answers
- Software Downloads and Release Notes—https://support.ruckuswireless.com/#products_grid
- Security Bulletins—https://support.ruckuswireless.com/security

Using these resources will help you to resolve some issues, and will provide TAC with additional data from your troubleshooting analysis if you still require assistance through a support case or RMA. If you still require help, open and manage your case at https://support.ruckuswireless.com/case_management.

Document Feedback

RUCKUS is interested in improving its documentation and welcomes your comments and suggestions.

You can email your comments to RUCKUS at #Ruckus-Docs@commscope.com.

When contacting us, include the following information:

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

For example:

- RUCKUS SmartZone Upgrade Guide, Release 5.0
- Part number: 800-71850-001 Rev A
- Page 7

RUCKUS Product Documentation Resources

Visit the RUCKUS website to locate related documentation for your product and additional RUCKUS resources.

Release Notes and other user documentation are available at https://support.ruckuswireless.com/documents. You can locate the documentation by product or perform a text search. Access to Release Notes requires an active support contract and a RUCKUS Support Portal user account. Other technical documentation content is available without logging in to the RUCKUS Support Portal.

White papers, data sheets, and other product documentation are available at https://www.ruckuswireless.com.

Online Training Resources

To access a variety of online RUCKUS training modules, including free introductory courses to wireless networking essentials, site surveys, and products, visit the RUCKUS Training Portal at https://commscopeuniversity.myabsorb.com/.

Document Conventions

The following table lists the text conventions that are used throughout this guide.

TABLE 1 Text Conventions

Convention	Description	Example
monospace	Identifies command syntax examples	<pre>device(config)# interface ethernet 1/1/6</pre>
bold	User interface (UI) components such as screen or page names, keyboard keys, software buttons, and field names	On the Start menu, click All Programs .
italics	Publication titles	Refer to the RUCKUS Small Cell Release Notes for more information.

Notes, Cautions, and Safety Warnings

Notes, cautions, and warning statements may be used in this document. They are listed in the order of increasing severity of potential hazards.

NOTE

A NOTE provides a tip, guidance, or advice, emphasizes important information, or provides a reference to related information.

Command Syntax Conventions

ATTENTION

An ATTENTION statement indicates some information that you must read before continuing with the current action or task.



CAUTION

A CAUTION statement alerts you to situations that can be potentially hazardous to you or cause damage to hardware, firmware, software, or data.



DANGER

A DANGER statement indicates conditions or situations that can be potentially lethal or extremely hazardous to you. Safety labels are also attached directly to products to warn of these conditions or situations.

Command Syntax Conventions

Bold and italic text identify command syntax components. Delimiters and operators define groupings of parameters and their logical relationships.

Convention	Description
bold text	Identifies command names, keywords, and command options.
italic text	Identifies a variable.
[]	Syntax components displayed within square brackets are optional.
	Default responses to system prompts are enclosed in square brackets.
{x y z}	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x y	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, for example, passwords, are enclosed in angle brackets.
	Repeat the previous element, for example, member[member].
١	Indicates a "soft" line break in command examples. If a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

Introduction to Using Alexa to Receive Vouchers

Alexa can be used to provide vouchers to users enrolling onto the Cloudpath system.

Cloudpath enrollment workflows can accept vouchers generated by Alexa that are sent to users who have the Alexa application installed on their device. All Alexa has to do first is learn a new skill - the Cloudpath network admin skill - available in the Alexa store. Then, the Cloudpath network administrator can obtain a necessary binding code from Alexa to enable communication between the Amazon Cloud and the Cloudpath Enrollment System.

Alexa can then also generate vouchers that users attempting to enroll onto Cloudpath can request themselves.

To get the binding code from Alexa and set up a corresponding workflow, follow the steps in these two sections:

- 1. Binding Alexa to the Cloudpath Enrollment System on page 7
- 2. Setting Up the Alexa Workflow on page 8

To understand how the user experience works, refer to User Experience With Alexa Vouchers on page 10.

To see what other administrative functions you can perform, refer to Administrative Information for Alexa Vouchers on page 11.

Binding Alexa to the Cloudpath Enrollment System

You can bind Alexa to your Cloudpath system after your Alexa applications adds (or "learns") the Cloudpath network skill.

Follow these steps to have Alexa learn the necessary skill and provide you with a binding code:

- 1. Locate the Cloudpath network admin application in the Alexa store and add it to your device. There are instructions on the internet about how to add skills to Alexa.
- 2. Once Alexa has added the Cloudpath network admin skill, speak these exact words into your Alexa device: "Alexa, ask network admin to get me on the network."
- 3. Alexa should then ask you if you would like to have a binding code generated. Answer "yes."
- 4. Alexa then says the binding code out loud. Be sure to take note of this code, as you will need to enter it into the Cloudpath UI.
- 5. In the Cloudpath UI, navigate to Administration > System Services.
- 6. Scroll to the bottom of that page to locate "Alexa," then click on the arrow to expand the entry:

FIGURE 1 Alexa in System Services Before Binding Occurs

~	Service:	Alexa		1
	Ale	exa Status:	C Unbound	
			Bind Remove old binding data	
	Ge	et Log File:	Select	

- 7. Click Bind.
- 8. In the ensuing screen, enter the binding code that Alexa gave to you, then click Save.

FIGURE 2 Alexa Binding Code Window

Administration > System Services > Bind Alexa	Cancel Save
Alexa Binding	
(i) Binding Code:	

NOTE

Once you have used a binding code, you cannot use the same one again.

9. If Alexa successfully binds to the Cloudpath system, a message should appear in the top of the System Services page: "Stored Alexa binding data!"

If binding was not successful, some possible reasons are:

- Entering the code incorrectly. If you receive a message that indicates an invalid code was entered, try typing the code in again.
- Connectivity issues between the Cloupdpath system and the Amazon Cloud. If you receive a message indicating this type of issue, you might want to check how your firewalls are set up.

Setting Up the Alexa Workflow

Once Alexa successfully binds to the Cloudpath system, you can set up a workflow that uses Alexa vouchers.

At this point, you create a workflow similar to any other workflow that asks the enrolling user to enter the voucher code they received. The only difference is that the voucher the user receives comes from their Alexa application as opposed to coming from the Cloudpath Enrollment System.

For example, a very simple workflow is shown below:

FIGURE 3 Workflow With Alexa Voucher Step Included

		l									
*	Step 1:	Require the u	iser to accept th	he AUP New Ad	ceptable Use	e Policy	1		1	×	
•											
	Step 2:	Prompt the u	user for a vouch	her from Alexa	Vouchers				1	×	
•											
	Result:	Move user to	Test Config an	nd assign certifi	cate using us	ername	@byod.con	ipan			1

The workflow shown above includes the step where vouchers are added (Step 2). When you are in the process of adding that step to your workflow, the screen you are presented with (see below) includes the question "Which Type of Step Should Be Added?" Click the "Authenticate using a voucher from a sponsor" button:

FIGURE 4 Using the "Authenticate using a voucher from a sponsor" Option in Your Alexa Workflow

Which Type Of Step Should Be Added?	
Display an Acceptable Use Policy (AUP)	
Displays a message to the user and requires that they signal their acceptance. This is normally user	for an acceptable use policy (AUP) or end-user license agreement (EULA).
Authenticate to a traditional authentication server	
Prompts the user to extremose to an Active Directory server, and LDAP server, RADIUS or a \$AM	. Norver
Ask the user to name their device	
Prompts the user to provide a name for the device, with the option to reuse or deline providually entry maintum number of concurrent devices.	led devices. This may suggest that OS devices be removed or may limit the
Ask the user about concurrent certificates	
Prompts the user with information about previously resuld certificates that are still valid. This may to condument certificates.	goal that oil certificates be removed or may kind the maximum number of
Split users into different branches	
Creates a branch or fork in the envolvent process. This can occur (1) visually by having the user in each option. For example, a user that selects "Guest" may be such through a different process than presented a different enrollment sequence than a Windows device.	ite a selection or (2) il can occur automatically based on oritana associated with user that assists to enroll as an "Employee". L'ikawise, an Android device may be
Authenticate to a third-party	
Prompts the user to authenticate via a variety of third party sources. This includes internal Okuth se	vers as well as public OAuth servers, such as Facebook, Unixedin, and Google,
Authenticate using a voucher from a sponsor	
Prompts the user to enter a voucher previously received from a sponace. The sponace generates the	voucher via the Sponeor Portal, typically before the user armyes onsite.
Perform out-of-band verification	
Sends the user a code via small or SMS to validate their identity	
Request access from a sponsor offline Promp the car to enter the required internation for network access request accroint from a spon car in outril Emailtant. Register device for MAC-based authentication	or. The sponsor can accept or reject the request and send a verification code to the
Regimes the MAC address of the device for MAC authentication by PACAUS. This is used for two pr captive posts or (2) to regular a device, such as a gaming device, for a PSK-desed SSID. In both or configurable period of time	may use cases: (1) to authoriticate the device on the current SSID via the WLAN set. The MAC address will be captured and the device will be permitted access for a
Display a message	
Displays a message to the user along with a single button to continue.	
Redirect the user	
Rednects the user to a specified external URL. This may be used to authenticate the user to the cap	tive pontal of the onboarding SSIO.
Prompt the user for information	
Displays a prompt screen with customizable data entry fields.	
Authenticate via a shared passphrase	
Prompts the user for a passphrase and verifies, if is consct. A shared passphrase is useful for control producties.	Englaccess to an enrollment process separate from, or in addition to, user
Generate a Ruckus DPSK	
Generates a DPSK, entrier via DPSK pools (for use in Ruchus WLAN controllers as "External DPSK"	or via a Ruolua WLAN controllar.
Send a notification	
Send a notification Generates a rotification about the enrolment. Notification types include errail, SMS, RESTARL sys	og and more. This step is investile to the end-user.
Send a notification Generates a notification about the enrollment. Notification types include errori, SMS, RESTAP, sys	og and more. This step is investite to the end-user,

Then, when configuring information in the ensuing screen, **you must** select "Alexa Vouchers" in the Voucher List section near the bottom of the screen, as shown in the example below:

FIGURE 5 "Alexa Vouchers" Checkbox in Voucher List

Modify Voucher Prom	pt	
Display Name:	Prompt for token from 'Alexa Vouchers list'	
(i) Description:		
Webpage Display Info	rmation	
Page Source:	Standard Template 🔻	
(i) Title:		
Prompt Text:	Enter the voucher that you received.	
Voucher Description:	Voucher	
Default Voucher:		
Help Link Caption:	Need Assistance?	
Help Link URL:		
Voucher Case:	Do not change.	
Voucher Regex:		
Continue Button Label:	Continue >	
Error Messages		
 Invalid By Regex Error: 	Voucher is incorrectly formatted.	
Already Used Error:	Voucher has already been used.	
Expired Error:	Voucher has expired.	
 Invalid Voucher Error; 	Voucher invalid.	
VouchorLiete		

For more information about using vouchers in a workflow, refer to the Cloudpath Enrollment System Sponsored Guest Access Configuration Guide.

User Experience With Alexa Vouchers

Enrolling users can request a voucher from Alexa before or during the enrollment process.

The sequence of steps for the user obtaining the voucher is:

- 1. The user must speak these exact words to the Alexa device or application: "Alexa, ask network admin to get me on the network."
- 2. Alexa then asks for the user's phone number to which to send an "access code."

NOTE

If the user does not obtain the access code almost immediately, the user should repeat the step to obtain the code because Alexa may not have interpreted the phone number correctly.

3. The user speaks clearly to the Alexa device or application and provides his or her phone number, beginning with the country code.

During the enrollment process, when the user is presented with the following screen, he or she should enter the voucher code received from Alexa, then click **Continue**.

FIGURE 6 Voucher Prompt the User Receives During Enrollment

Ĩ		тм У
Enter the voucher	r that you received.	
Voucher:		
< Back		Continue >

The enrollment process continues. The secure network should appear in the user's WiFi list on their device so that they can connect to that network. You can refer to the Cloudpath Enrollment System user experience guide for your device for descriptions and screen shots about the remainder of the enrollment process.

Administrative Information for Alexa Vouchers

There are many administrative functions available that relate to Alexa binding, vouchers, log files, and more.

Binding, Unbinding, and Obtaining Log Files

Go to Administration > System Services, then scroll down to find Alexa and expand the information to see binding status:

Examining Alexa Vouchers

FIGURE 7 Alexa Bind/Unbind and Log File Box

~	Service:	Alexa		/
	Ale	exa Status:	O Unbound	
			Bind Remove old binding data	
	Ge	et Log File:	Select	

From here, you can bind or unbind Alexa, remove old binding data, or get Alexa log files. The "Remove old binding data" button can be useful when you want to start from scratch in case there is an issue with attempting to use the Bind function.

Examining Alexa Vouchers

To view all Alexa vouchers that have been issued, navigate to **Sponsorship > Vouchers**, then expand the Alexa Vouchers list, as shown in the following example:

FIGURE 8 Alexa Voucher Information

List 1:	Alexa \	/ouche	rs									
Vie	Notes:	These vo you no lo Show t Show r	ouche onger unused	rs are used fi wish to use A vouchers. (2) : consumed vouch	or granting use Nexa to issue v Show expired youd ners. 🔲 Show at	ers access via Alexa, vouchers, please go ers.	If you delete to Administrat	this voucher ion->System	configuration, Alexa will I a Services->Alexa, and cl	be unable to provide v ick the 'Unbind' button	oucher codes to you	ir user
	Vouchers:		Þ	Voucher	Status	End-User Name	Company	Sponsor	Uses	Days of Access	SMS Phone	Ema
Ad	d Voucher	1	×	iduh	Available				0 of 1 (Expires 20190223 0123 GMT)	[30]	14154204266	
		1	×	dpfs	Available				0 of 1 (Expires 20190223 0114 GMT)	[30]	1415	
External	Sponsors:	Users au No onbo	ithenti ard sc	icated extern	ally and belong	ging to groups match	ing: .*					

You can use the checkboxes to display information about all vouchers, or just vouchers in various states of usage. You can also add a voucher here, and supply an onboarding user with the new voucher for enrollment.

Alexa API Key

Cloudpath creates an API key unique for Alexa. To locate this key, go to **Configuration > API Keys**, as shown in the figure below:

NOTE

Do not change or remove the API key, or the Alexa functionality will cease to work.

FIGURE 9 Alexa API Binding Key

C	onfig	jurati	on > API	Keys		
		10				F
			Status	Name	API Key	Expiration
	1>	×	•	Alexa Binding API Key	bk9ndRkNTjTn	20311231

Notifications

Cloudpath creates a notification in the **Dashboard > Notifications** section about Alexa vouchers:

FIGURE 10 Alexa Information in Notifications Area

Show:	Notifications Events	Scheduled Reports				
	Type	Address	Last Known Status	Timestamp	Email Subject	Skip Reason
200	SMS	18018600707	SMS pending.	20181130 1126 MST		
			0 0 Revis1-101 0 0 1			



© 2021 CommScope, Inc. All rights reserved. 350 West Java Dr., Sunnyvale, CA 94089 USA https://www.commscope.com